



AMERICA'S EMERGENCY CARE ENVIRONMENT

A State-by-State Report Card



2014

America's Emergency Care Environment, A State-by-State Report Card

2014 Edition

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Report Card Task Force Members

Jon Mark Hirshon, MD, MPH, PhD, FACEP
Report Card Task Force Chair

Roy L. Alson, MD, PhD, FACEP

David Blunk

Douglas P. Brosnan, MD, JD, FACEP

Stephen K. Epstein, MD, MPP, FACEP

Angela F. Gardner, MD, FACEP

Donald L. Lum, MD, FACEP

Joshua B. Moskovitz, MD, MPH, FACEP

Lynne D. Richardson, MD, FACEP

Jennifer L. Stankus, MD, JD

Paul D. Kivela, MD, FACEP
ACEP Board of Directors Liaison to the Task Force

ACEP Staff

Dean Wilkerson, JD, MBA, CAE
ACEP Executive Director

Craig Price, CAE
Staff Liaison to the Task Force

Marilyn Bromley, RN

Nancy Calaway

Marjorie Geist, PhD, RN, CAE

Laura Gore

Cynthia Singh, MS

Gordon Wheeler

Table of Contents

Executive Summary	v	Maryland.....	57
Overview	1	Massachusetts.....	59
2014 Report Card	2	Michigan	61
Understanding the Report Card	4	Minnesota.....	63
Objective Categories and Measures.....	4	Mississippi.....	65
Access to Emergency Care	4	Missouri	67
Quality and Patient Safety Environment	5	Montana	69
Medical Liability Environment.....	5	Nebraska	71
Public Health and Injury Prevention.....	6	Nevada	73
Disaster Preparedness	6	New Hampshire	75
Comparing the 2014 and 2009 Report Cards	7	New Jersey	77
Results	8	New Mexico	79
National Trends and State Comparisons by Category	10	New York.....	81
Access to Emergency Care	10	North Carolina.....	83
Quality and Patient Safety Environment	11	North Dakota	85
Medical Liability Environment.....	12	Ohio	87
Public Health and Injury Prevention.....	14	Oklahoma.....	89
Disaster Preparedness	15	Oregon	91
Recommendations	16	Pennsylvania.....	93
State Report Cards		Rhode Island.....	95
Alabama	17	South Carolina	97
Alaska	19	South Dakota	99
Arizona.....	21	Tennessee	101
Arkansas.....	23	Texas	103
California	25	Utah.....	105
Colorado	27	Vermont.....	107
Connecticut	29	Virginia	109
Delaware	31	Washington	111
District of Columbia	33	West Virginia.....	113
Florida	35	Wisconsin	115
Georgia	37	Wyoming.....	117
Hawaii	39	Puerto Rico.....	119
Idaho	41	Government Services	121
Illinois.....	43	Appendices and Tables	123
Indiana.....	45	Summary Statistics for State Comparisons.....	Tear-out
Iowa.....	47	Category Rankings by State	125
Kansas	49	State Rankings by Category	126
Kentucky.....	51	Methodology	127
Louisiana	53	Indicator Weights by Metric.....	130
Maine	55	Glossary of Terms.....	133
		References	134
		Data Sources	135

Executive Summary

NATIONAL GRADE BY CATEGORY	
ACCESS TO EMERGENCY CARE	D-
QUALITY & PATIENT SAFETY ENVIRONMENT	C
MEDICAL LIABILITY ENVIRONMENT	C-
PUBLIC HEALTH & INJURY PREVENTION	C
DISASTER PREPAREDNESS	C-
OVERALL	D+

For millions of Americans who experience sudden, serious illness or injury every year—and in the increasing scores of communities that must respond to disasters and mass casualty events—immediate access to quality emergency care is essential to saving life and limb. But the availability of that care is threatened by a wide range of factors, including shrinking capacity and an ever-increasing demand for services. Even as more and more Americans come to rely on emergency departments for their acute care needs, particularly aging and sick Boomers and people newly enrolled in Medicaid, such care will increasingly become harder to access.

This national Report Card rates the overall environment in which the emergency care system operates with a near-failing grade of D+. This is a poorer grade than the one earned in 2009, a C-. Overall state rankings have changed since the 2009 Report Card, with the District of Columbia now ranking first and Wyoming ranking last in the nation.

These findings are the result of a comprehensive and focused study of the emergency care environment nationwide and state-by-state. The American College of Emergency Physicians (ACEP) convened a blue-ribbon task force of experts to produce this third edition of a national report card. It builds on previous work to provide a comprehensive look at the nation's emergency medical system in five categories. Despite hoped-for changes and improvements, the environment has not improved; it has, in fact, gotten worse.

The five categories are based on 136 objective measures that reflect the most current data available from reliable public sources, including the U.S. Centers for Disease Control and Prevention,

the National Highway Traffic Safety Administration, and the Centers for Medicare and Medicaid Services, as well as other sources, such as the American Medical Association. The 136 measures were selected because they represent factors vital to life-saving emergency care and meet the key criteria of relevance, reliability, validity, reproducibility, and consistency across all states.

Access to Emergency Care

D-

This important category represents 30% of the total grade and includes four subcategories: access to providers, access to treatment centers, financial barriers, and hospital capacity. It also includes access to specialists, such as neurosurgeons, orthopedists, and plastic surgeons.

Access to emergency care is fundamental and complex—and essential. Several factors affect people's access, such as the availability of emergency departments, the capacity of those departments, and the workforce available to staff those departments. In addition, the environment is affected by an unfunded government mandate, the Emergency Medical Treatment and Labor Act (EMTALA), that requires emergency departments to screen and stabilize anyone who presents with an emergency medical condition, which means that all patients are seen, regardless of ability to pay.

This failing grade reflects trouble for a nation that has too few emergency departments to meet the needs of a growing, aging population, and of the increasing number of people now insured as a result of the Affordable Care Act. For more than 20 years, emergency visit rates have increased at twice the rate of the growth of the U.S. population, totaling 130 million in 2010. And that growth in demand is poised to continue.

Quality & Patient Safety Environment

C

This category represents 20% of the total grade and includes subcategories reflecting state systems and institutions that can support the emergency care environment. Measuring this environment is essential, as is examining how better-quality systems and technologies can help improve care and prevent injuries. Federal agencies, state governments, and private institutions have made advancements in developing and implementing indicators of health care quality. ACEP continues to monitor direct state investments in improving quality and safety, such as funding for emergency medical services (EMS) medical directors and development and implementation of destination and triage policies that allow EMS to bypass local hospitals to take patients to appropriate hospital specialty centers. Institutional improvements include advances, such as the use of computerized practitioner order entry and attention to addressing racial and ethnic disparities in care.

Medical Liability Environment

C-

This category represents 20% of the total grade and includes subcategories that describe the legal atmosphere, insurance availability, and tort reform across the states.

The U.S. Department of Health and Human Services characterizes the medical liability environment as a broken system, one that features wide variations in policies and practices across states. In some cases, high liability insurance rates have forced physicians to curtail their practices, stop performing high-risk but critically necessary procedures, such as delivering babies, or move to states with more favorable liability environments. And the country pays for it: studies estimate that liability costs, including those associated with the practice of defensive medicine, add as much as \$108 billion to the annual total cost of health care, resulting in patients experiencing higher costs, longer waits, and more challenges in accessing care.

This category includes data on numerous types of liability reforms, such as medical liability caps on non-economic damages, pretrial screening panels, periodic payments of malpractice awards, the presence of state-funded patient compensation funds, and additional liability protections for care mandated by EMTALA.

Public Health & Injury Prevention **C**

This category represents 15% of the total grade and includes measures of traffic safety and drunk driving, immunization, fatal injury, state health and injury prevention efforts, and health risk factors.

Injuries account for nearly one-third of emergency visits. And preventable and behavior-related factors, such as smoking, poor diet, alcohol consumption, and drug abuse, contribute to many more. States can positively impact all of these factors through life-saving policies, such as those requiring seat belt use in vehicles and helmet use while riding motorcycles, as well as education and outreach to increase healthy choices among the general population, including vaccination. Failure to adopt effective measures at the state-level can negatively impact public health and have a considerable effect on the need for emergency services.

Disaster Preparedness **C-**

This category represents 15% of the total grade and includes financial resources, state coordination, hospital capacity, and personnel data related to the capacity to respond to disasters.

The ever-present threat and reality of natural disasters and man-made catastrophes require an effective response capability. Disaster preparedness efforts rely on ongoing collaboration of many entities at all levels of government and in all economic sectors. In this process, emergency physicians, who have training and experience in managing mass casualty events and delivering lifesaving care, are integral to this process. Despite real and present threats, states continue to experience great variability in planning and response capacities. In many communities, capacity is already stretched to the limit, and hospital bed surge capacity, staffing, and resources are inadequate to respond to the extraordinary demands precipitated by any disaster.

Recommendations

In response to these findings, the American College of Emergency Physicians makes the following recommendations, each aimed at improving care in terms of access, safety and quality, medical liability, public health and injury prevention, and disaster preparedness.

1. *Protect access to emergency care as health care reforms are implemented.*
2. *Support programs that recognize the pivotal role emergency medicine plays in care coordination and transitions of care.*
3. *Reduce the incidence of hospital crowding and boarding of admitted patients in the emergency department.*
4. *Enact federal and state medical liability reforms that enhance timely access to quality care, particularly those that provide appropriate liability protections for EMTALA-mandated care.*
5. *Increase coordination and regionalization of specialized emergency services and support funding of federally authorized regional pilot programs.*
6. *Devote consistent federal and state funding to ensure adequate and sustainable local and regional disaster preparedness.*
7. *Continue to increase the use of systems, standards, and information technologies to track and enhance the quality and patient safety environment.*
8. *Continue pursuit of state laws that help reduce the number of preventable deaths and injuries, particularly those that address traffic-related injuries and fatalities.*
9. *Expand access to standardized and user-friendly state and/or federal prescription drug monitoring programs to decrease unintentional deaths by drug overdose.*
10. *Fund graduate medical education programs that support emergency care, especially those related to addressing physician shortages in disadvantaged areas and in rural areas.*
11. *Support emergency medicine research, including basic, clinical, and translational research into improving the delivery of emergency care services.*

Emergency physicians today mobilize resources to diagnose and treat every kind of medical emergency. They also play a pivotal role in setting the health care course for their patients by coordinating care with on-call specialists and other clinicians in the hospital and in communities. Care that once was provided in inpatient settings is now being done in emergency departments. Yet emergency physicians work in a stressed system that operates in a near-crisis situation. This Report Card points to shortcomings and challenges in the emergency care environment, but it does not attempt to grade the care provided by dedicated emergency physicians and staff, nor does it underestimate the day-to-day commitment and concern that emergency physicians demonstrate in caring for millions of patients each year.

Overview of the Nation's Emergency Care Environment

An 8-month-old baby girl was sent to an emergency department by her pediatrician. She was vomiting and dehydrated, and on the way, went into cardiac arrest. Upon arrival, the emergency physician found her not breathing and without a pulse, so he opened her airway, inserted an endotracheal breathing tube and started chest compressions and breathing for her. Lab tests were obtained within minutes after placing an intraosseous needle in her leg. Placing a line into the bone marrow provided fluids directly into the circulatory system, thus reversing life-threatening dehydration. The specialized procedures required the training of a highly skilled emergency physician. Her heart restarted, and once stabilized, she was taken to the pediatric intensive care unit where peritoneal dialysis was started and she was monitored closely. While severe dehydration can harm any child, she was ultimately diagnosed with Denys-Drash syndrome — a very rare genetic disorder which can lead to renal failure in the first 3 years of life. She almost died, but left the hospital without any problems and continues to do well with supportive medical care.

On a spring day in 2013, a Boston emergency department was almost full when word came of an explosion near the finish line of the Boston Marathon. Emergency department personnel sprang into action to prepare to handle a sudden influx of badly injured patients. When possible, existing patients were moved out of the emergency department or onto inpatient units in order to free up space to treat the bombing victims. The victims started arriving quickly by ambulance to various hospitals throughout the city, thanks to the coordinated response of Boston's EMS system. At this hospital, emergency physicians, nurses and surgeons were deployed into more than 10 trauma teams ready to receive patients. Existing disaster response systems were put in place to quickly triage the new arrivals and then rapidly move them to available teams at the next appropriate stage of care. Providers at that hospital were prepared to handle the crisis, largely because the hospital had participated in more than 70 disaster drills over the previous seven years, including citywide drills with Boston EMS. The response at all levels was universally lauded for its extraordinary effectiveness in getting injured patients the immediate care they needed.

These experiences illustrate some of the critical characteristics required to save lives and to have successful patient outcomes in emergency medicine: the round-the-clock availability of emergency departments and emergency medical services (EMS) to provide lifesaving care to the victims of sudden serious illness or trauma or mass casualty events; the ability to initially evaluate and treat patients en route to the hospital and provide advance notice of their arrival; the breadth and depth of diagnostic and treatment abilities among emergency physicians; and their ability to coordinate care with and among other clinicians, including on-call specialists.

Facts About Emergency Department Visits

- Number of visits in 2010: 130 million or 247 visits per minute
- Number of injury-related visits: 37.9 million
- Number of visits per 100 persons: 43
- Percent increase in emergency department visits from 1995 – 2010: 34%
- Percent of ambulatory medical care visits that occur in emergency departments: 10.5%
- Percent of active physicians who are emergency physicians: 4.2%

Source: National Hospital Ambulatory Medical Care Survey: 2010 Emergency Department Summary

In the wake of the terrorist attacks of September 11, 2001, emergency physicians have worked with an array of public health and safety organizations to develop comprehensive, coordinated disaster planning. The importance of such planning has sadly played out repeatedly in recent years, from Aurora to Newtown, from Oklahoma to the Jersey Shore, from Boston, Massachusetts to West, Texas. In addition, the ever-present threat of epidemics, such as pandemic flu, emphasizes the need to plan for infectious disease prevention, control, and treatment.

But the emergency care system is seriously strained. A lack of resources and the growing, multifaceted demands on emergency departments pose serious challenges for the ability of highly qualified emergency physicians to deliver life and limb saving care. Fewer emergency departments and shortages of inpatient beds have contributed to long wait times in emergency departments.

According to the Centers for Disease Control and Prevention (CDC), the supply of emergency departments has declined by about 11% from 1995 to 2010. Meanwhile, over that same time period emergency visit rates have increased at twice the rate of growth of the U.S. population. The number of emergency department visits was 130 million in 2010, and this number is likely to continue to grow(1). As the Baby Boom generation ages into retirement, a growing number of elderly patients with complicated health problems will likely seek medical care in emergency departments, possibly leading to “catastrophic” crowding(2). In addition, emergency visits are likely to increase

when millions of people, added to the Medicaid rolls through the implementation of the Affordable Care Act, seek emergency care because they are unable to find physicians who accept their insurance. Uninsured and underinsured patients routinely lack access to primary care and frequently postpone needed medical care until ultimately requiring attention in the emergency department.

But primary care providers are also heavily dependent on emergency departments to ensure their patients receive proper medical attention. A 2013 RAND study reported that four in five people who called their family doctors about a sudden medical issue got the same advice: Go to the emergency department. Additionally, two-thirds of emergency visits occur after business hours, when doctors' offices are closed(3).

Emergency physicians today mobilize resources to diagnose and treat every kind of medical emergency and set the course of care for their patients by coordinating with on-call specialists and other health care providers. Care that used to be provided on inpatient floors now is being done in emergency departments, often saving significant hospitalization costs. According to the 2013 RAND study, the 4% of America's doctors who staff hospital emergency departments manage:

- 11% of all outpatient care in the United States
- 28% of all acute care visits
- Half of the acute care visits by Medicaid and CHIP beneficiaries
- Two-thirds of all acute care for the uninsured

As the demand for emergency care grows, many emergency providers already work in a stressed system that operates in a near-continuous state of crisis. There are many contributors to this public health predicament, from inadequate access to primary care and specialty on-call care to insufficient availability of inpatient beds, which leads to emergency department crowding. Other causes include increased demand for services to treat preventable illnesses and injuries and the impact of excessive liability costs that fail to account for the inherent risks associated with providing immediate lifesaving emergency care. Little has improved since the release of the American College of Emergency Physicians (ACEP) 2009 National Report Card on the State of Emergency Medicine, which found significant obstacles to and shortcomings in care in every aspect measured. This reinforced the 2006 findings of an Institute of Medicine report, which determined that the U.S. emergency care system was at the breaking point(4). In addition, the lack of followup care for an emergency visit has been cited as a top concern influencing a physician's decision to admit patients to the hospital(3), which also contributes to higher costs.

2014 Report Card

The American College of Emergency Physicians is dedicated to advancing emergency care, and in 2006 developed its first Report Card on the State of Emergency Medicine as a means to help accomplish this mission.

While this Report Card has a different title, its goal has not changed. This 2014 Report Card continues to assess the emergency care environments of each state and whether government policies are supportive of emergency care in five categories (discussed in more detail in the following section):

- Access to emergency care
- Quality and patient safety environment
- Medical liability environment
- Public health and injury prevention
- Disaster preparedness

The policy environments of each of these categories have changed since the last Report Card in 2009. For too many people, access to emergency care remains obstructed; a problem that is compounded by an increase in the number of people who seek care in emergency departments, and a coinciding decrease in the number of emergency departments, hospital beds, and treatment centers. The nation has shifted its focus to measure quality of care within the quality and patient safety environment. This is reflected within trends in state systems and institutions, but is facing ongoing challenges in the design of the systems as well as in how quality of delivered care is measured.

In the medical liability environment, physicians continue to cite the failure to enact meaningful tort reform as a major contributor to the unnecessary costs of "defensive medicine" and a significant impediment to providing access to on-call specialists needed to provide critically important emergent specialty care. Difficulties in enacting laws and employing effective strategies to prevent injuries and illnesses continue to plague the public health and injury prevention arena. Finally, in the area of disaster preparedness, the states have seen a decline in federal funding, leading to wide variation in states' hospital capacity and personnel preparedness. In each of these categories, many states in 2014 continue to receive grades that are merely average or on the verge of failure.

Problems identified in the 2009 ACEP Report Card persist, especially in terms of emergency department crowding and its subsequent effect on the boarding of admitted emergency patients, emergency department wait times, and ambulance diversion.

At the same time, demographic trends are creating—or will soon create—significant challenges to providing quality emergency care, particularly in terms of addressing and eliminating health disparities and in meeting the needs of a rapidly aging society. As an example of increasing demand, the widespread consequences of opioid addiction among the nation's young people will continue to increase emergency visits, which will struggle to respond to associated illnesses and overdoses. Any number of studies point to the consequences of increased demand for emergency medicine. For example:

- A 2011 study found that mortality generally increased with increased emergency department boarding time, from 2.5% in patients boarded less than 2 hours, to 4.5% in those boarding 12 hours or more; for admitted patients, their hospital length-of-stay also increased with increased boarding time(5).
- Emergency department crowding has a “deleterious effect on the timeliness of emergency care, even for high-acuity patients(6).”
- Emergency department length of stay was significantly longer for African-American patients admitted to ICU beds than Whites (367 minutes vs. 290 minutes)(7).
- Between 2009 and 2011, the rate of emergency visits involving illicit stimulants increased 68%, and the rate of visits involving marijuana rose 19%(8). The misuse and abuse of prescription painkillers was responsible for more than 475,000 emergency department visits in 2009, a number that has nearly doubled in just five years(9).

All of this occurs within the context of the evolving role that emergency medicine is playing in America's health care system. In the 2013 RAND research report, policy analysts noted several important changes in that role in terms of delivering not only urgent and emergent care, but also in coordinating patient care. Among the study's key findings is that the emergency physician plays a key role in triaging access to appropriate levels of health care for patients. For instance, the growth in hospital admissions that occurred between 2003 and 2009 can be attributed almost

entirely to an increase in unscheduled inpatient admissions from emergency departments. This trend stems from a new reality: primary care physicians increasingly rely on emergency physicians to help manage care for patients whose illnesses are severe or complex, as emergency departments can efficiently perform complex diagnostic workups and handle after-hours demand for care.

The roles of emergency departments and the emergency care system are likely to evolve further as provisions of the 2010 Affordable Care Act (ACA) become reality and begin to influence and shape the design, delivery, and financing of health care. These provisions have yet to fully impact emergency medicine, and there is a debate over how these changes will play out—for better or for worse. Advocates point to likely improvements, particularly in terms of making health care accessible to millions more people by fully implementing state and federal Health Insurance Marketplaces (exchanges) and, in many states, expanding Medicaid; improving care coordination and disease management; deploying Accountable Care Organizations (ACOs) as a means of reducing total health care costs while improving care; and widespread provider and consumer use of electronic medical records. In any event, emergency care has never been more important than it is right now, especially as the nation implements health care reform. Emergency physicians have a unique view of the entire medical care system. They treat everyone, from babies to seniors, and see the full spectrum of medical problems. They know where the gaps in the medical care system are and have ideas about how to plug them.

Increases in the number of insured patients through health insurance exchanges, combined with the uneven state adoption of expanded Medicaid coverage, suggest that there will be great demand for emergency services in the coming years. To help ensure access to timely, quality emergency care, federal and state policymakers need to implement the Recommendations of this Report Card.

Understanding the Report Card

Objective Categories and Measures

The Report Card is based on 136 objective measures that reflect the most recent data available from high-quality sources such as the Centers for Disease Control and Prevention, the National Highway Traffic Safety Administration, the Centers for Medicare & Medicaid Services, and the American Medical Association. Additional data were gathered from two surveys of state health officials, specifically conducted to obtain information for which no reliable, comparable state-by-state sources were available. The goal of the Report Card is to show how individual states, and our nation as a whole, measure up in supporting the ability of the nation's emergency departments to care for patients.

The Report Card also reviews the emergency medical environments for Puerto Rico and Government Services, which includes health care systems for the military and veterans. These, however, present special cases, since data for these areas are not comparable to the 50 states and District of Columbia. As such, grades were not calculated. The report for Puerto Rico is based on a limited set of indicators for which comparable data were available and the Government Services report is based on in-depth interviews with representatives of each of the military branches and the Veterans Health Administration.

The five categories and indicators included in the 2009 Report Card served as a starting point for determining the indicators to be used in the 2014 Report Card. The Report Card Task Force, a panel of experts in emergency medicine and related topics, chose to maintain the five categories, as well as the vast majority of indicators, from the 2009 Report Card and recommended the addition of new indicators that could provide greater depth in each of the categories. Factors such as the availability of consistent state-level data, issues that are of current importance to the field, and the consistency of measurement over time were considered by the Task Force in selecting indicators. In total, 136 indicators were selected because they represent factors that are vital to the provision of lifesaving emergency care. Each indicator also met several key criteria: relevance, reliability, validity, reproducibility, and consistency across all of the states. A more detailed description of the Report Card data, the Report Card Task Force processes, and the grading methodology are presented in the Appendices. The specific issues involved in comparing grades and ranks between the 2009 and 2014 Report Cards are discussed in the next section.

The 2014 Report Card includes a wide range of indicators that represent both direct measures of emergency medical services and many indirect measures that have an important effect on the ability to provide quality and timely emergency care. They are classified according to five categories: *Access to Emergency Care*, the *Quality and Patient Safety Environment*, the *Medical Liability Environment*, *Public Health and Injury Prevention*, and

Disaster Preparedness. For each state and the nation as a whole, the Report Card presents one grade for each of the five categories and an overall grade.

Access to Emergency Care (30% of total grade)

Subcategories: Access to Providers (25% of the category), Access to Treatment Centers (25%), Financial Barriers (25%), Hospital Capacity (25%)

Access to emergency care is both fundamental and complex. Emergency departments are a vital part of the health care system in each community and region. They deliver emergency care day in and day out, and they serve as the health care safety net for anyone, insured or not, who cannot otherwise obtain timely health care services when needed. Access to emergency care is complex because the demand for emergency services often is related to the capacity of the broader health care system to deliver services. Thus, measures of *Access to Emergency Care* must include elements that comprise that broader system.

This category measures the availability of emergency care resources, such as numbers of emergency physicians, emergency departments, registered nurses, and trauma centers per person, along with proximity to Level I or II trauma centers, and the median time from arrival to departure from the emergency department. Because emergency department capacity is also a function of the broader health care system, the access category includes key measures of that system's capacity, such as the availability of primary care, mental health care, and substance abuse treatment. It also includes the numbers of available inpatient hospital beds, psychiatric beds, and designated pediatric specialty centers, because greater capacity in those areas can alleviate crowding and boarding within emergency departments. Since one of the most commonly cited concerns in emergency departments across the country is the lack of access to on-call specialists, this category also includes measures of the total supply of commonly requested specialists, including neurosurgeons, orthopedists, hand surgeons, plastic surgeons, and ear, nose, and throat specialists. As an example of the complexity of the access issue, it should be noted that while the number of specific specialists is measurable, many of these specialists have curtailed their availability for emergency services for any number of reasons, including conflicting clinical responsibilities and the cost and risk of medical liability when caring for emergency patients.

Finally, another critical issue that affects the demand for and access to emergency care is the ability of patients to pay for needed health services. Emergency departments are obligated under the unfunded government mandate of the Emergency Medical Treatment and Labor Act (EMTALA) to screen and stabilize individuals with emergency medical conditions⁽¹⁰⁾. Therefore, the percentage of adults and children who are uninsured or underinsured, the number of people relying on public health insurance such as Medicaid, and the availability of physicians

to treat those patients are included as important measures of the demand for care that must be absorbed by the emergency medical system. It is expected that these factors will change as components of the Affordable Care Act are implemented.

Quality and Patient Safety Environment (20% of total grade)

Subcategories: State Systems (66.7% of the category), Institutions (33.3%)

One of the critical concerns regarding the increasing pressures on our emergency medical system is the effect these pressures may have on the quality and patient safety environment. Therefore, it is important to be able to measure that environment and how improved systems and technologies can contribute to its enhancement.

State governments and private institutions, led by federal agencies, have made great advances over the past five years in the development and implementation of indicators of health care quality, and this is reflected through the expansion in the indicators measured here since the 2009 Report Card. We continue to monitor direct state investments in quality and safety improvements—for example, whether a state provides funding for quality improvements to EMS or for a State EMS Medical Director. Additional measures of state investments in the quality and patient safety arena include the percentage of counties that have Enhanced 911 services and the number of emergency medicine resident physicians in the state relative to the population. The latter number is important because research shows that investment in emergency medicine residency programs helps increase the numbers of emergency physicians since most choose to stay and practice in or nearby the state where they are trained. Further measures of quality improvement systems include systems of care for specific conditions, such as stroke or myocardial infarction (heart attack), and uniform systems for providing pre-arrival instructions. Indicators have also been added to assess state-level efforts to implement prescription drug monitoring programs to control the abuse of prescription painkillers, as well as indicators of triage and destination policies for stroke, ST-elevation myocardial infarction (STEMI, or heart attack involving blockage of a major artery), and trauma patients.

On the institutional level, indicators are included that measure the adoption of systems that may contribute to improving the quality of care, such as computerized practitioner order entry and electronic medical records. Several direct measures of quality are included as well: the percentage of patients with acute myocardial infarction given aspirin with 24 hours of arrival in the emergency department, the percentage of these patients given percutaneous coronary intervention (PCI) within 90 minutes, and the median time to transfer to another facility for acute coronary intervention. Finally, since equity is an essential component of quality, two indicators were added that address institutions' attention to health equity: the percentage of hospitals collecting data on the race, ethnicity, and primary language

of their patients, and the percentage of hospitals who have or are working on a diversity strategy or plan.

Medical Liability Environment (20% of total grade)

Subcategories: Legal Atmosphere (25% of the category), Insurance Availability (20%), Tort Reform (55%)

According to the U.S. Department of Health and Human Services, the medical liability system in our nation is “broken”(11). There are wide variations in practices and policies across states. In some states, high liability insurance rates have forced physicians to curtail their practices, stop performing high-risk but critically necessary procedures, such as delivering babies or providing on-call specialty care to emergency patients, or move to other states with more favorable liability environments. The liability crisis has forced the closure of trauma centers in some states. Physicians may practice “defensive medicine”—providing extra medical treatments or tests solely out of concern to avoid litigation. For patients, the result is greater costs, longer waits, and more difficulty accessing care. For our nation, the result is increased health care expenditures. Studies estimate that medical liability costs add between \$55 billion and \$108 billion to the total cost of health care each year(12). At the lowest estimate, these costs account for 2.4% of total health care expenditures.

In 2012, the average state's medical liability insurance premium for internal medicine was \$13,338, with the highest average premium reaching \$31,133. For obstetrician/gynecologists and general surgery specialists, the insurance premium in the average state was \$57,459 per year, but reached as high as \$128,555(13). High medical liability insurance rates and fear of lawsuits, particularly in the higher risk environment of the emergency department, may lead to reductions in the numbers of specialists willing to offer on-call services to emergency departments(14). For instance, a recent study assessing malpractice risk by physician specialty indicates that every year about 20% of neurosurgeons and nearly 15% of orthopedists and plastic surgeons face a malpractice claim(15). Another recent study has estimated that physicians can expect to spend 11% of a 40-year career with an unresolved medical malpractice claim which further contributes to the emotional burden of high-risk practice(16). High insurance costs and the risk of malpractice claims also discourage medical students from going into high risk, but critically important specialties, such as emergency medicine, surgery, neurosurgery, orthopedics, and obstetrics.

Further aggravating the situation is evidence that the lack of access to on-call specialists contributes to adverse patient outcomes because of delayed treatment or the need to transfer patients long distances to obtain the care they need (14). Two-thirds of emergency department directors in Level I and II trauma centers surveyed by ACEP in 2006 reported that more than half of the patient transfers that they received were referred there because of a lack of timely access to specialty physicians in the emergency department of origin(17). In other words, a medical liability environment in crisis may result in a greater risk of adverse outcomes for patients.

In the face of rising medical liability insurance costs and physician shortages, all but 5 states and the District of Columbia introduced some type of medical liability reform legislation in 2011 and 2012(18). However, many of the reforms have not passed, and in some cases those that were enacted have been reversed by state judicial systems. In addition, the extent and types of liability reforms vary significantly across states.

To assess the status and variation of these measures, this Report Card category includes data on numerous types of liability reforms, based on a detailed review of existing legislation impacting the liability environment in each state. Examples of reform indicators include medical liability caps on non-economic damages, pretrial screening panels, periodic payments of malpractice awards, the presence or absence of a state-funded patient compensation fund, and additional liability protections for EMTALA-mandated care. There are several indicators related to expert witness rules and a measure of whether or not the state has abolished joint and several liability.

Further measures of the liability environment in this category include information on the numbers of malpractice award payments, average value of awards, and average liability insurance premium costs. The 2014 Report Card also includes state apology inadmissibility laws, as well as whether states provide for malpractice awards to be offset by collateral sources.

Public Health and Injury Prevention (15% of total grade)

Subcategories: Traffic Safety and Drunk Driving (22.2% of the category), Immunization (16.7%), Fatal Injury (16.7%), State Health and Injury Prevention Efforts (22.2%), Health Risk Factors (22.2%)

Nearly one-third (31.5%) of emergency visits are for injury-related causes. In addition, more than half of the causes of death and disability are due to preventable and behavior-related factors, such as smoking, poor diet, lack of physical activity, alcohol consumption, motor vehicle crashes, firearms, and illicit drug use(19,20). Consequently, the impact of public health and injury prevention on the need for emergency care and other health care services is considerable, and state investments in these areas are important.

The public health measures include such indicators as rates of obesity among adults and children, cigarette smoking, and binge drinking. They also include infant mortality rates as well as adult and child immunization rates, each of which is an important measure of access to primary care services that are proven to greatly reduce morbidity and mortality. To recognize the growing issues of health equity, indicators have been added that measure racial and ethnic disparities in the critical public health indicators of cardiovascular disease, human immunodeficiency virus (HIV) diagnosis, and infant mortality.

The rates of traffic fatalities, including those that are alcohol-related, are represented, as are homicides and suicides and fatal injuries from falls, fires, firearms, and occupational incidents.

In recognition of the increasing rate of drug-overdose deaths, which has surpassed that of traffic-related deaths, the rate of unintentional poisoning deaths has been newly added in this Report Card. Within injury prevention, there are measures of seatbelt use, state policies on seatbelts and child safety seats, and legislation on distracted driving and graduated drivers' licenses, as well as state investments in various forms of injury prevention programs. Wherever possible, the indicators in this section were designed to measure the outcomes of prevention efforts—such as rates of seatbelt use and traffic fatalities—in addition to the policies, such as seatbelt laws, that may influence safe behaviors.

Disaster Preparedness (15% of total grade)

Subcategories: Financial Resources (13.3% of the category), State Coordination (40%), Hospital Capacity (20%), Personnel (26.7%)

Threats of terrorism and the number of disasters of natural and human origin in the United States continue to increase, highlighting the fact that at no time in our history has the need for disaster preparedness been more urgent or pronounced. Several factors, such as population growth, greater urbanization, population migration to states at higher risk of natural disasters, and decreased health care access and capacity have magnified the potential effects of disasters on individuals and infrastructure.

Emergency physicians have training and experience in managing mass casualty events and delivering lifesaving care to the sick and injured. As such, they play an integral role in local and national disaster preparedness and response. However, while there has been increased state and federal focus on disaster preparedness, there is great variability among states in terms of planning and response capacity. In addition, there is increasing concern regarding the fact that the emergency care system in many communities is already stretched to the limit, and that surge capacity, staffing, and resources are inadequate to deal with the extraordinary demands of a major disaster.

To measure support for disaster preparedness and response, this category includes numerous measures of disaster planning, capacity, and systems that are designed to ensure a quick and effective response. Examples of those measures range from levels of federal funding received by each state for disaster preparedness to training, drills, bed surge capacity, and numbers of burn beds and intensive care unit beds per capita. There are several indicators associated with medical response plans and the degree to which they incorporate emergency physician input, patients with special health care needs, and communication with emergency and hospital staff. Indicators also measure development of communication and tracking systems, including “just-in-time” training, redundant communication, patient tracking, and syndromic surveillance. The presence or absence of medical strike teams and liability protection for health care workers during a disaster is included as is the level of participation by physicians, nurses, and behavioral health professionals in the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP).

Comparing the 2014 and 2009 Report Cards

Environment of the 2014 Report Card

The 2014 Report Card evaluates the conditions under which emergency care is delivered during a time of mounting pressure — it does not attempt to measure the quality of care provided by hospitals and emergency providers. Emergency physicians are trained to respond to urgent and emergent care needs; however, they are increasingly playing a key role in disaster response due to the rise of mass-casualty events and natural disasters. They are also increasingly tasked with coordinating transitions of care and providing care for patients with limited immediate or long term access to primary care providers. While some states have instituted policies and systems that will help to lighten the load on their overburdened emergency care system, as demonstrated in this Report Card, others are clearly falling short.

Differences between the Report Cards

The 2009 and 2014 Report Cards are similar in several important ways. First, the five categories of indicators remain the same (*Access to Emergency Care, Quality and Patient Safety Environment, Medical Liability Environment, Public Health and Injury Prevention, and Disaster Preparedness*) as do their relative contribution to the overall grades. Second, there is extensive overlap in the specific indicators included in both Report Cards. In total, 108 of the 116 measures included in the 2009 Report Card are retained in this Report Card (a few measures were retired because data were no longer available or they were no longer pertinent to the overall Report Card). Third, the methods used to score and grade the states in this Report Card are the same as those used for the 2009 Report Card.

The benefit of these similarities is that they allow direct comparisons between Report Cards. It is important to note, however, that the states are graded in this Report Card (and in the 2009 Report Card) in relation to other states, so the grades are not an absolute measure of a state's support for its emergency care system. Therefore, a change in a given state's grade reflects changes in that state's emergency care environment, as well as changes in other states' scores — both of which will affect the state's rank and grade. (More detail about the scoring and grading of states is provided in the Methodology section.) For this reason, it may be most appropriate to compare values for specific measures and state rankings over time. In this regard, the 2014 Report Card helps to identify both areas of improvement relative to 2009 and areas that require immediate attention.

Although similar in content and methodology, this Report Card includes a number of measures that were not presented in the 2009 version, increasing the total number of measures by 20. Most of these additional measures fall under the categories of *Public Health and Injury Prevention, Quality and Patient Safety Environment, and Disaster Preparedness*; several measures were also added to the remaining two categories. Individual measures are reported on the state data pages.

Highlights of the 2009 Report Card

In January of 2009, ACEP published its second National Report Card on the State of Emergency Medicine, which incorporated substantial revisions to both the content and methodology relative to ACEP's first Report Card, published in 2006. The 2009 Report Card included 116 measures across five categories: *Access to Emergency Care, Quality and Patient Safety Environment, Medical Liability Environment, Public Health and Injury Prevention, and Disaster Preparedness*. Measures and grades were reported for each state in the nation, as well as for the District of Columbia.

Overall, the nation received a C- grade for its support of emergency care in 2009. The nation fared best but was still under par in the area of *Public Health and Injury Prevention*, receiving a C grade for this category, and it was worst in the area of *Access to Emergency Care*, receiving only a D- grade for this category. While none of the states earned straight A's, several states were ranked among the best (the top 5) in more than one category. Likewise, none of the states failed across the board, but several states ranked among the worst (the bottom 5) in more than one category. Individual overall state grades ranged from a B in Massachusetts to a D- in Arkansas.

The 2009 Report Card presented findings that were considered "sobering" and pointed to a national emergency health care system that was in serious condition. Concerns related to emergency department boarding and crowding were paramount in 2009, particularly because numerous trends, such as an increasing number of patients using emergency departments and a subsequent decline in the number of emergency departments open to serve this population, underscored the need for reform. Issues, such as the cost and availability of medical liability insurance, the shortage of on-call specialists, inconsistent use of systems and standards of care within states, and the less than ideal coordination of emergency services only compounded the seriousness of the situation. To combat these multiple pressures, the 2009 Report Card made the following recommendations:

- Create stronger emergency departments through national health care reform.
- Alleviate boarding in emergency departments and hospital crowding.
- Pass the Access to Emergency Medical Services Act.
- Enact federal and state medical liability reform.
- Infuse a greater level of federal funding and support into disaster preparedness and response.
- Increase support for the nation's health care safety net.
- Develop greater coordination of emergency services.
- Increase the use of systems, standards, and information technologies to track and enhance the quality and patient safety environment.

Results

D+ The findings of the 2014 Report Card indicate that, as a whole, the emergency care environment in the United States has worsened and patients continue to face significant challenges in accessing life-saving care. Overall, the national grade has declined to a D+, reflecting subpar grades in three of the five categories measured. The nation continues to perform worst in Access to Emergency Care, for which it earns a D-. This grade accounts for 30% of the national grade because it most directly impacts the emergency care environment, touching on issues related to the adequacy of the health care workforce, hospital capacity, and financial barriers to care. Particularly troubling, however, are the declining grades in several other categories, including *Disaster Preparedness* (C-) and the *Quality and Patient Safety Environment* (C). The nation held steady in *Public Health and Injury Prevention* (C) and *Medical Liability Environment* overall with a subpar C-.

Among the individual states, there were many changes in overall state rankings, with the District of Columbia placing first and surpassing Massachusetts, which held the top spot in the 2009 Report Card. Two states rose to the top 10 for the first time, Colorado (5th) and Ohio (7th), while at the other end of the spectrum, several states made their first appearance among the 10 bottom-ranked states: Montana (48th), Illinois (45th), Alabama (44th), Louisiana and Alaska (tied for 42nd).

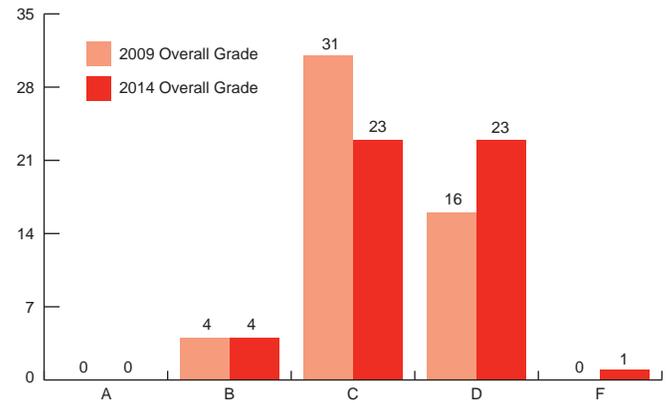
	2009 Grade	2014 Grade
Access to Emergency Care	D-	D-
Quality & Patient Safety Environment	C+	C
Medical Liability Environment	C-	C-
Public Health & Injury Prevention	C	C
Disaster Preparedness	C+	C-
OVERALL GRADE	C-	D+

Top ranked states (change in rank since 2009)	Bottom ranked states (change in rank since 2009)
1. District of Columbia (+1)	51. Wyoming (-9)
2. Massachusetts (-1)	50. Arkansas (+1)
3. Maine (+4)	49. New Mexico (0)
4. Nebraska (+1)	48. Montana (-13)
5. Colorado (+8)	47. Kentucky (-3)
6. Pennsylvania (+2)	46. Michigan (-3)
7. Ohio (+11)	45. Illinois (-18)
8. North Dakota (+2)	44. Alabama (-6)
9. Utah (+1)	42. Louisiana* (-6)
10. Maryland (-6)	42. Alaska* (-4)

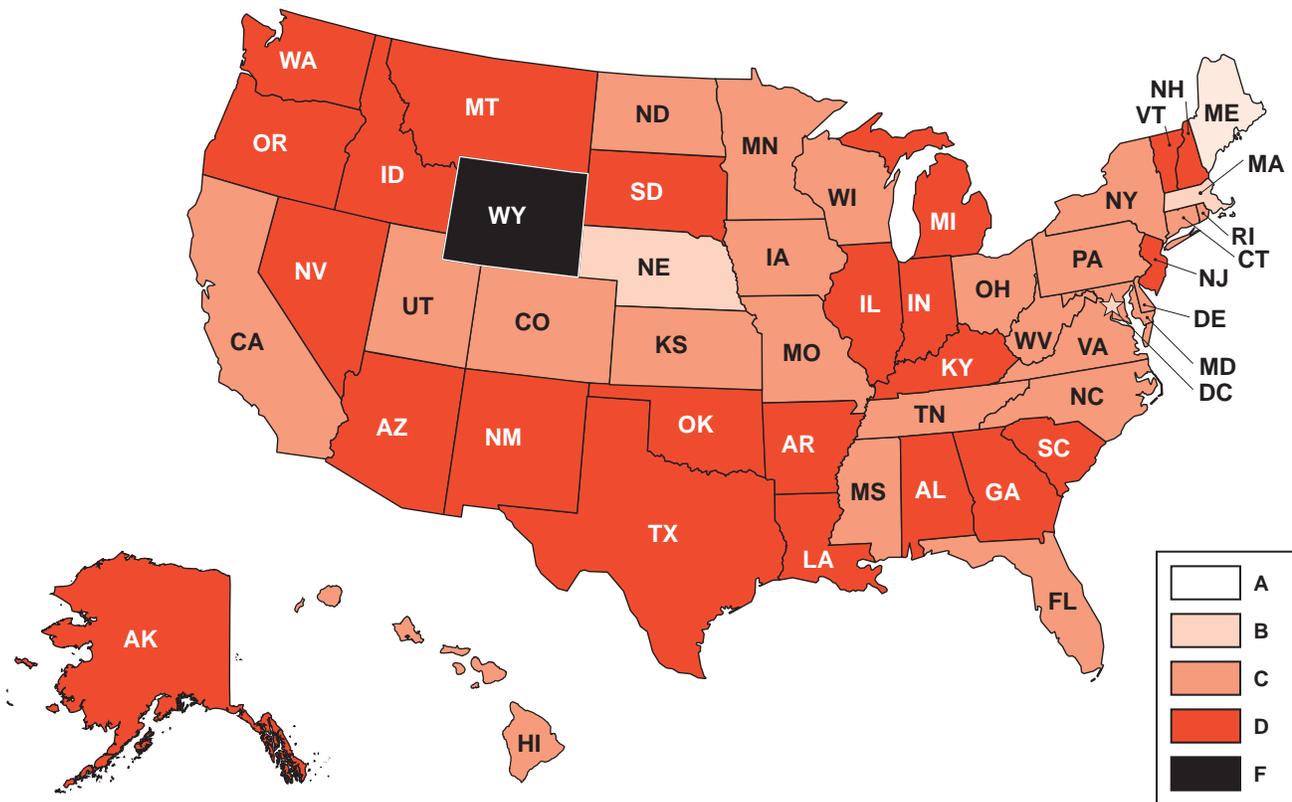
*Tied for 42nd place

In 2014, the highest grade received is a B- and the lowest grade is an F. Comparatively, 2009 grades ranged from a B to a D-, reflecting a declining trend in overall state grades and contributing to the overall worsening national grade. While four states received grades falling in the range of a B in both Report Cards, the number of states with a C grade has dropped dramatically. That gap is accounted for by the increase in states receiving D's and the addition for the first time of one state, Wyoming, receiving an F overall. It is also worth noting that within each of the letter grades in 2014, many states fall below the average, threatening to drop further if major and immediate improvements are not made.

Figure 1. Letter Grades Received by States Overall, 2009 and 2014 Report Card



OVERALL STATE GRADES



National Trends and State Comparisons by Category

Access to Emergency Care

The national grade for *Access to Emergency Care* remains a D- as states continue to struggle with a plethora of issues, including health care workforce shortages, shortages of on-call specialists, limited hospital capacity to meet the needs of patients, long emergency department wait times, and increasing financial barriers to care. While the number of emergency physicians per capita, including board-certified emergency physicians, has increased slightly since the previous Report Card, the rates of many specialists have remained largely unchanged, with a national average of about 2 neurosurgeons per 100,000 people; 2.2 plastic surgeons; 3.5 ENTs; and 9.7 orthopedists and hand surgeons. While these rates reflect overall specialty areas, they do not indicate a specialist's willingness to provide on-call services, and thus may overstate access to services.

Access to treatment centers has also shown mixed results since the 2009 Report Card, with no change in the per capita rate of Level I or II trauma centers (1.8 per 1 million people) but an improvement in the proportion of the population within 60 minutes of a trauma center (from 76.0 to 82.1%). Access to accredited chest pain centers has also improved (from 1.1 to 2.5 per 1 million people), however some states still lack any accredited chest pain centers. On the other hand, the per capita rate of pediatric specialty centers has decreased slightly (from 3.8 to 3.6 per 1 million people) and the proportion of adults with an

unmet need for substance abuse treatment has increased (from 8.4 to 8.9%).

Financial barriers to care also persist, with increasing proportions of adults lacking health insurance (17.7%), and while more children are uninsured than was reported in 2009 (9.4%), this ranges from 2.5% in Massachusetts to 21.0% of children in Nevada. Additionally, data included in the current Report Card indicate that even those with insurance face financial barriers: 18.0% of children who have health insurance are underinsured, with health care costs reported as unreasonable by their parents. The rate of financial underinsurance among children ranges from a low of 11.8% of children in the District of Columbia to 23.2% in Minnesota.

Finally, hospitals' capacity for providing effective and efficient emergency care has declined since the 2009 Report Card on nearly every measure. Per capita rates of staffed inpatient beds have fallen from 358.3 to 329.5 per 100,000 people, and psychiatric care beds have also declined from 29.9 to 26.1 per 100,000. Contributing to these declines were an additional 19 hospital closures in 2011 alone. These factors contribute to emergency department crowding, reflected in the median emergency wait time of 272 minutes, or 4.5 hours, from emergency department arrival to departure for admitted patients. This ranges, however, from 176 minutes in South Dakota (2.9 hours) to 452 minutes in the District of Columbia (7.5 hours).

ACCESS TO EMERGENCY CARE STATE GRADES

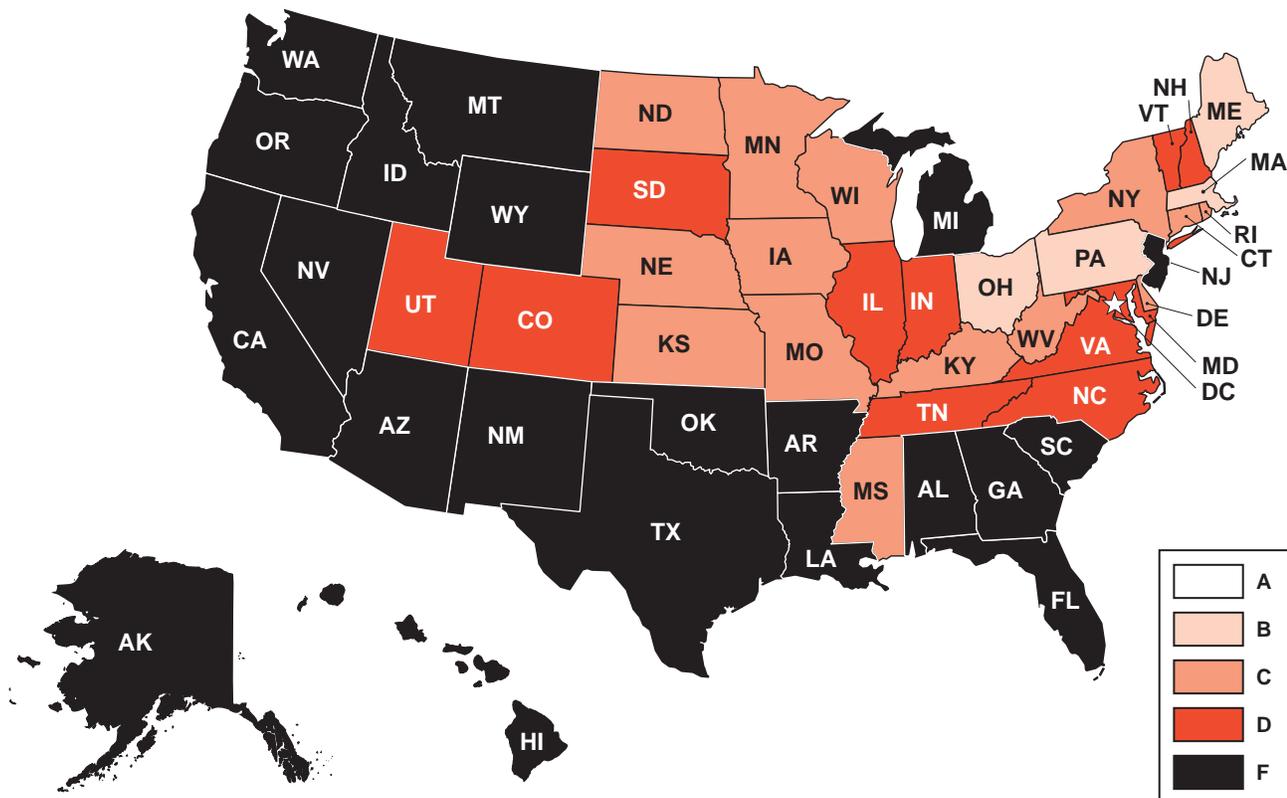
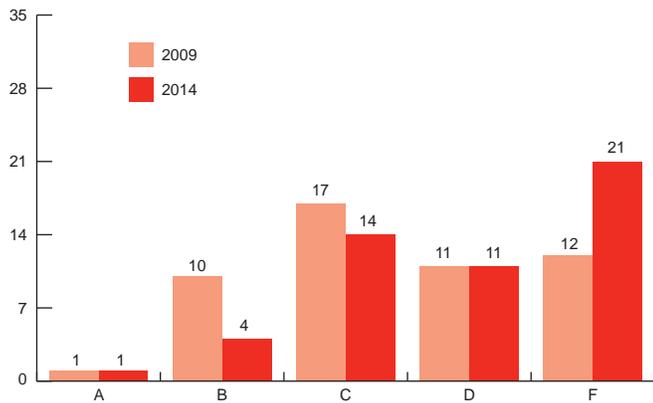


Figure 2. Letter Grades Received by States in Access to Emergency Care, 2009 and 2014



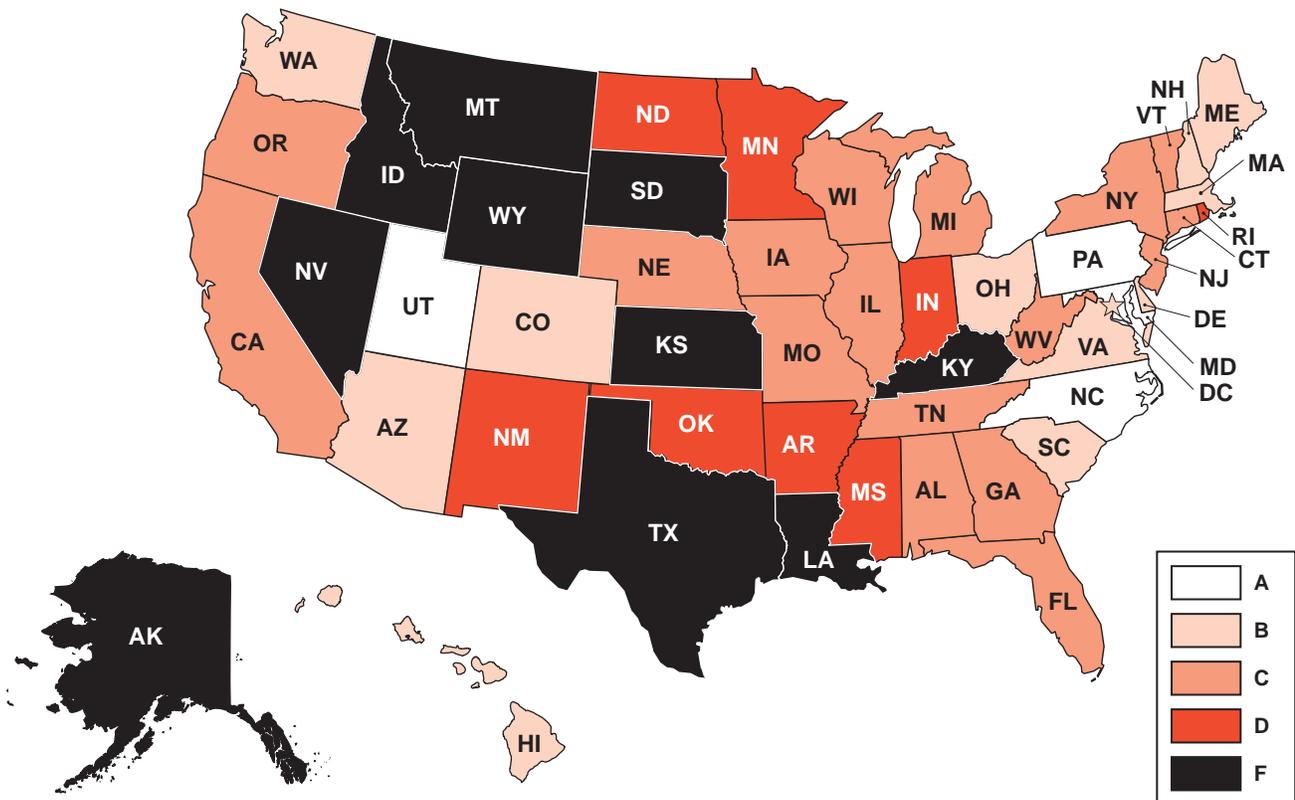
While the national grade in *Access to Emergency Care* has not changed, an overall shift in state-level grades tells a different story. Only 5 states in 2014 earn a B grade or better, compared with 11 states in 2009. The number of states receiving a C has also decreased, while the number earning a D did not change. The difference in grades from 2009 to 2014 is accounted for solely by the increase in the number of states receiving an F, which grew from 12 to 21 states, indicating that two-thirds of the states received a failing grade of a D or an F.

Quality and Patient Safety Environment

The nation continues to fare best in the *Quality and Patient Safety Environment* category, as many states have implemented systems and protocols to improve life-saving care and to facilitate effective and efficient systems of care. Despite improvements for a number of states in this category, the nation receives a C overall, representing a slight decline since 2009. Part of this decline is related to the addition of new indicators that allow better measurement of the true quality and patient safety environment. For instance, while hospitals have greatly increased adoption of electronic medical records (92.0%) and computerized practitioner order entry (77.1%) since 2009, they lag in developing diversity strategies or plans (44.0%) and efforts to collect data on patients' race and ethnicity and primary language (58.6%). The addition of these latter two indicators is particularly important as it will allow hospitals to investigate and address racial and ethnic disparities in the quality of care and types of treatment provided.

Another important addition to assessing the *Quality and Patient Safety Environment* is the time it takes to transfer a patient with chest pain to another facility. Nationally, this process takes 72 minutes on average; however this varies dramatically across the 48 contiguous states, from 28 minutes in Vermont to 178 minutes in Wyoming (the average transfer time in Hawaii was even higher, 219 minutes).

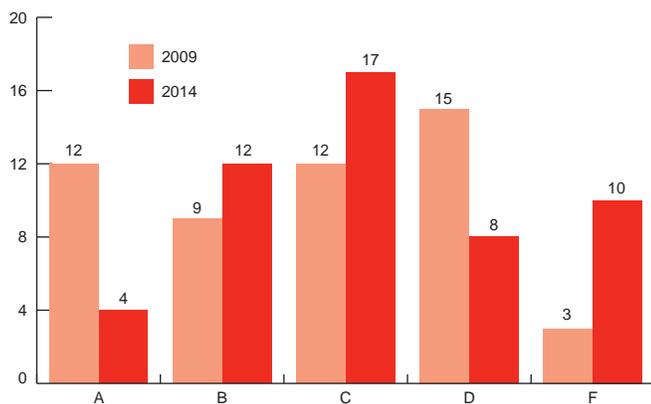
QUALITY & PATIENT SAFETY ENVIRONMENT STATE GRADES



While these new indicators are important, it is also noteworthy that the nation overall failed to make progress on a number of measures. The number of states providing funding for quality improvement of the EMS system has declined, with five fewer states reporting doing so in 2014. No additional states reported (1) having a uniform system for providing pre-arrival instructions (2) funding for a state EMS medical director and (3) maintaining a statewide trauma registry in 2014 compared with 2009.

On the other hand, the nation has made some notable improvements, including a dramatic increase in the number of emergency medicine residents. On average, there are 18.3 residents per 1 million people, which represents a 42% increase over the 12.9 per 1 million reported in 2009. The number of states having or working on a STEMI system of care stands at 43, an increase from 29 in 2009. Finally, about half of states report having destination policies in place for stroke and STEMI patients that would allow EMS to bypass a local hospital for an appropriately designated specialty center, and 41 states have such a policy for trauma patients.

Figure 3. Letter Grades Received by States in Quality and Patient Safety Environment, 2009 and 2014



The slight decline in the national grade is affected by overall declines among the states. Many more states in 2014 earned C's and F's than in 2009, while there were eight fewer A's and only three more B's awarded. Maryland, Utah, Pennsylvania, and North Carolina all earned A's in 2014, while the five bottom-ranking states were Wyoming, Montana, Louisiana, Nevada, and South Dakota.

Medical Liability Environment

The *Medical Liability Environment* in the United States is still in crisis and threatens to further diminish the availability of on-call specialists and other providers in states where the risks of lawsuit or costs of liability insurance are prohibitive. The nation again receives a C- for its overall *Medical Liability Environment*—however, while this indicates that the nation has failed to make progress, it does not mean nothing has changed. Since the previous Report Card, a number of states have seen liability reforms declared unconstitutional, and there are constant challenges to rules already in place in many other states. While the overall grade may mask these serious problems, a few states, such as North Carolina, saw great success in improving its medical liability environment, which prevented the national grade from declining.

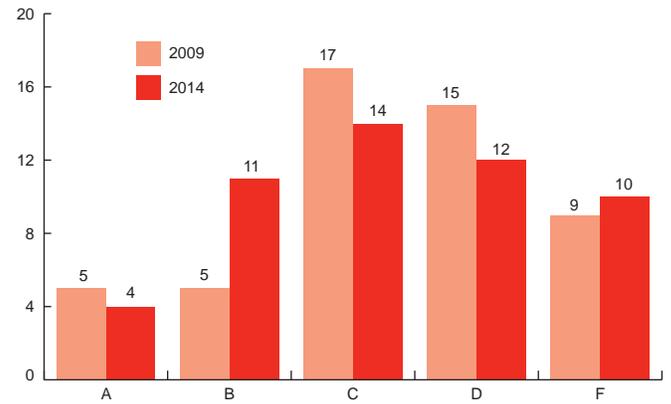
Since the 2009 Report Card, the states overall have seen slight positive changes in insurance premiums but detrimental changes in the legal atmosphere. While insurance premiums, on average, have declined for both primary care physicians and specialists, the average malpractice payment has increased 9% from \$285,218 to \$311,088. There is also great variation across the states in awards, which range from an average payment of \$75,882 in Louisiana to \$681,839 in Hawaii. While these numbers reflect the best available data on malpractice award payments, they likely underestimate the true cost of malpractice award payments, especially among states with patient compensation funds, due to limitations inherent in the data. Finally, the per capita rate of malpractice award payments (2.4 per 100,000 people) has not changed.

For tort reform, there have been virtually no changes overall, despite movement in both directions among the states. While two states passed legislation to place a cap on non-economic damages in medical liability cases (North Carolina, Tennessee), three states that had these rules prior to 2009 saw them struck down by the courts (Georgia, Illinois, Missouri). There were no changes in the number of states having abolished joint and several liability, either in full or partially, and providing for periodic payments of malpractice awards. The states have also seen declines in expert witness rules, with two fewer states providing for case certification (24 states total), one fewer requiring expert witnesses to be of the same specialty as the defendant (21) and licensed to practice medicine in the state (3).

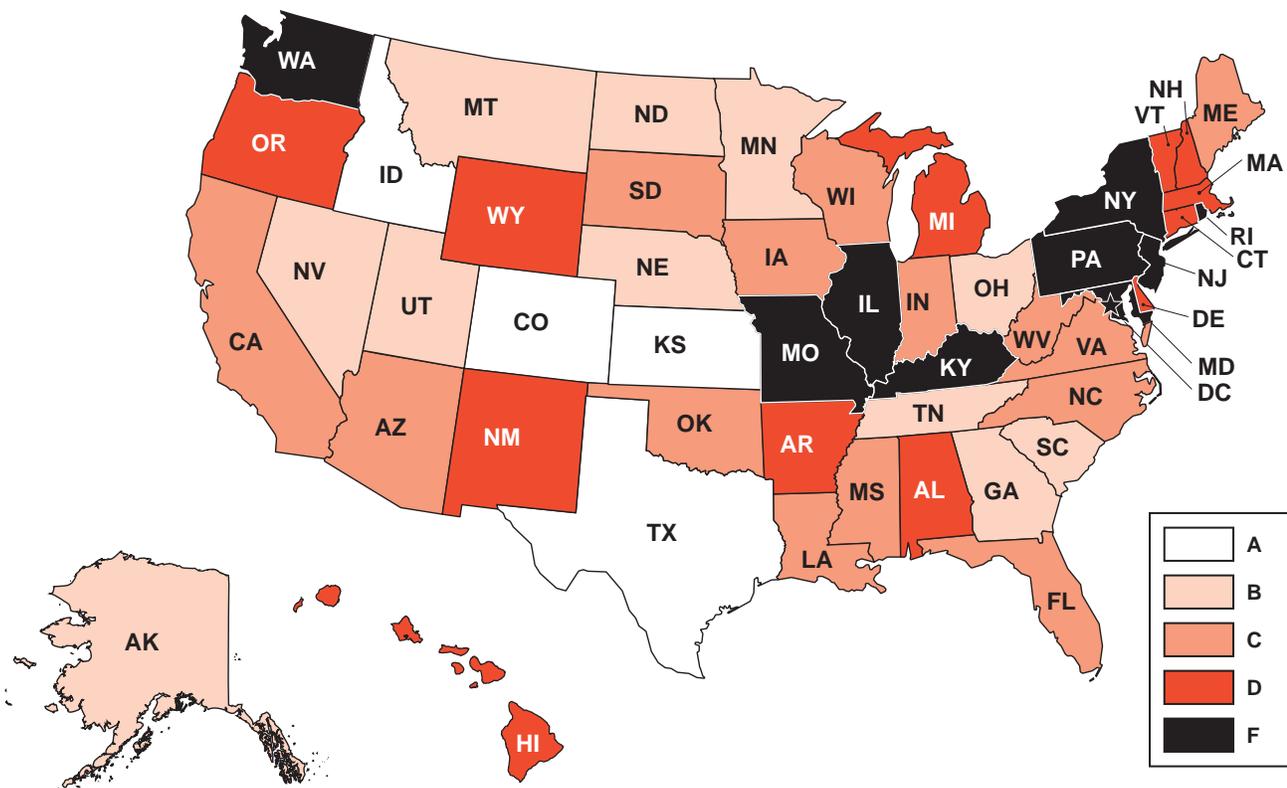
On a positive note, however, two states passed additional liability protections for EMTALA-mandated care, bringing the total to eight states across the nation. This is particularly important since emergency care often requires that split-second, life-saving decisions be made with little or no knowledge of a patient's medical history, including allergies, health conditions, medications, and prior treatment. States that provide additional protections to these providers, such as requiring clear and convincing evidence of negligence in liability cases, encourage physicians to provide coverage (including on-call coverage for high-risk specialties) for the emergency department and reduces the need to practice defensive medicine that may not be in a patient's or payer's best interest.

States that stand-out in this category include Colorado, Texas, Idaho, and Kansas—all of which received an A—while 10 states received an F: the District of Columbia, Illinois, New York, Kentucky, Rhode Island, Maryland, Pennsylvania, Missouri, New Jersey, and Washington.

Figure 4. Letter Grades Received by States in Medical Liability Environment, 2009 and 2014



MEDICAL LIABILITY ENVIRONMENT STATE GRADES



Public Health and Injury Prevention

The *Public Health and Injury Prevention* category is unique in that the overall focus is on areas where state systems and initiatives can preemptively have a tremendous impact on improving health outcomes and ultimately reduce the overall need for emergency care. One example of this is immunizations for children and the elderly—reducing the number of people susceptible to contagious disease will ultimately save lives and prevent cases from reaching the emergency department, leaving the health care system available for other emergent needs. The grade for this category has not improved since 2009, and the nation earns a C overall. This grade reflects a mix of positive and negative changes over time, as well as the addition of important new indicators that have been incorporated into the 2014 Report Card.

Since the previous Report Card, there have been some dramatic declines in the proportion of children receiving the full schedule of immunizations, as well as in the proportion of older adults receiving influenza vaccinations, with rates varying widely across the states. Only about half of older adults in Alaska (51.8%) received an influenza vaccine in the previous 12 months, compared with 70.2% in Iowa and Louisiana. Health risk factors also continue to be a major concern with increasing rates of adult obesity, binge drinking, and smoking, as well as increasing rates of homicides and suicides, fall-related deaths, and poisoning-related deaths, which include drug overdoses.

PUBLIC HEALTH & INJURY PREVENTION STATE GRADES

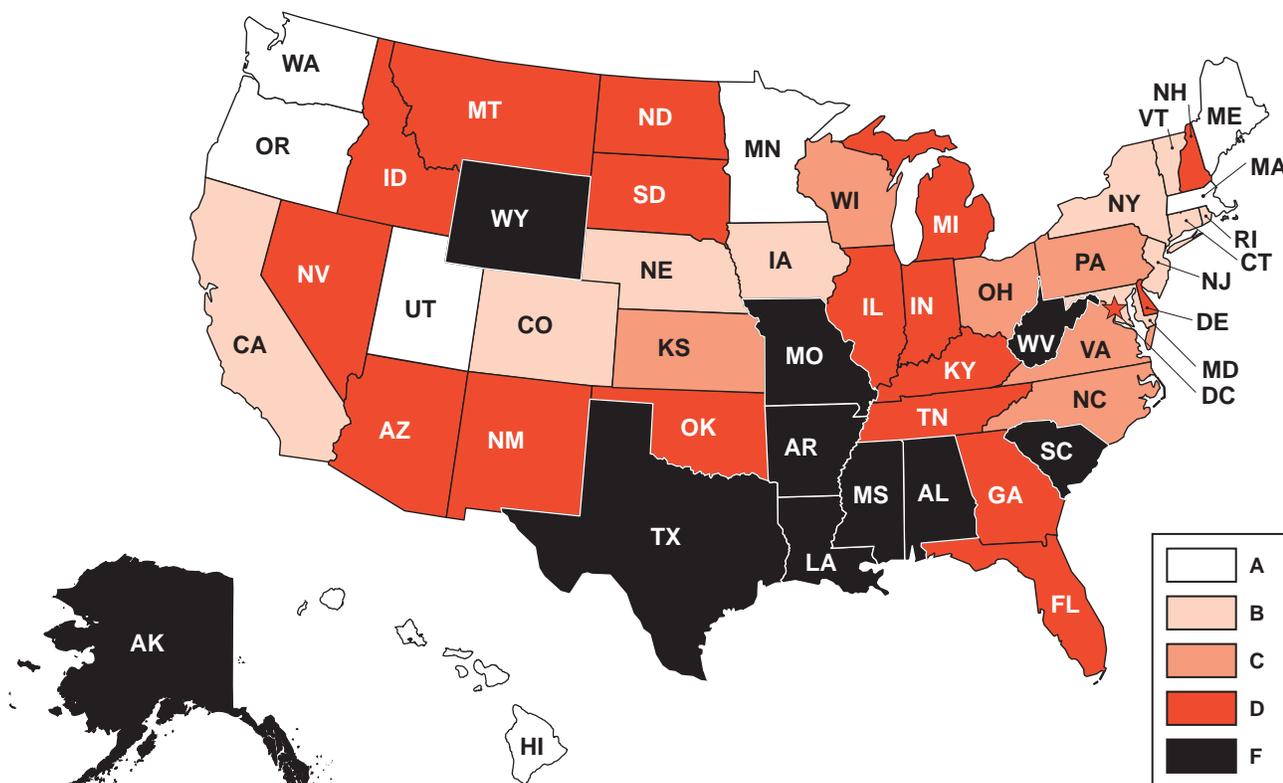
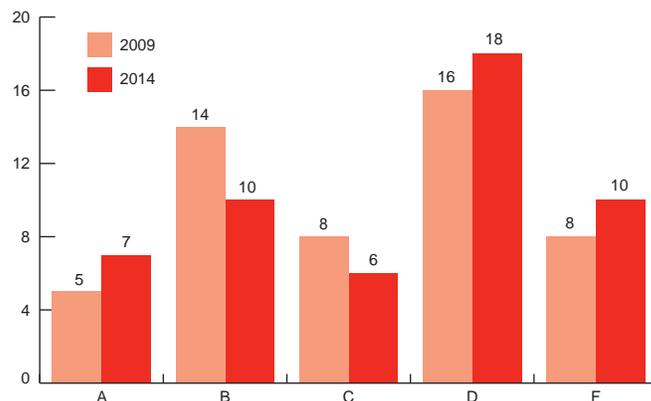


Figure 5. Letter Grades Received by States in Public Health and Injury Prevention, 2009 and 2014



At the same time, however, the nation has made some progress in certain areas. For instance, traffic safety has improved, with increased seat belt use and fewer traffic fatalities involving alcohol (from 42.0 to 36.3% of traffic fatalities). The overall infant mortality rate has also decreased slightly, although racial and ethnic health disparities vary widely across the states on this measure.

Figure 5 shows the grades earned in *Public Health and Injury Prevention* in 2009 and 2014. There has been a slight shift, with more states earning D's and F's in 2014, although a few more states also earned A's. The states earning the top seven spots in this category were Massachusetts, Hawaii, Oregon, Utah, Washington, Minnesota, and Maine. The poorest performances, all earning an F, were from South Carolina, Mississippi, Texas, Arkansas, Wyoming, Missouri, Louisiana, Alaska, Alabama, and West Virginia.

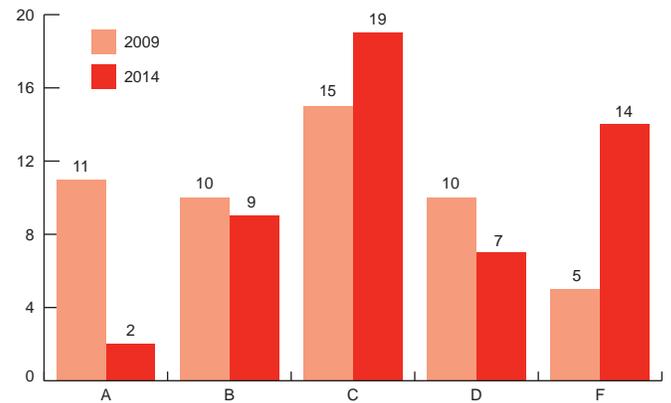
Disaster Preparedness

While the states overall have continued to improve and refine their disaster preparedness planning and practices, the national grade has fallen slightly to a C-. This is due, in large part, to wide variations across the states in hospital capacity and personnel preparedness. For instance, while nationally the number of health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) has increased considerably, some states have yet to implement such a system for preparing its volunteer response: currently, there is an average of 61.0 physicians registered per 1 million people, but this ranges from 0 to 656.8 per 1 million across the states. Similarly, there are 279.6 nurses registered in ESAR-VHP per 1 million people overall, ranging from 0 in Mississippi to 1,069.1 per 1 million in the District of Columbia.

Federal funding for disaster preparedness has also declined since 2009, with states receiving an average of \$9.52 per person, compared with \$13.82 per person previously. There has been no change in the number of verified burn centers or burn unit beds per capita, and a slight decrease in availability of ICU beds. At the same time, however, the states have seen a large increase in bed surge capacity, (from 673.4 to 933.8 beds per 1 million people).

A considerable number of states have incorporated specific patient populations in their medical response plans to facilitate their ongoing care in the event of a natural disaster or mass casualty event. Many state medical response plans include special

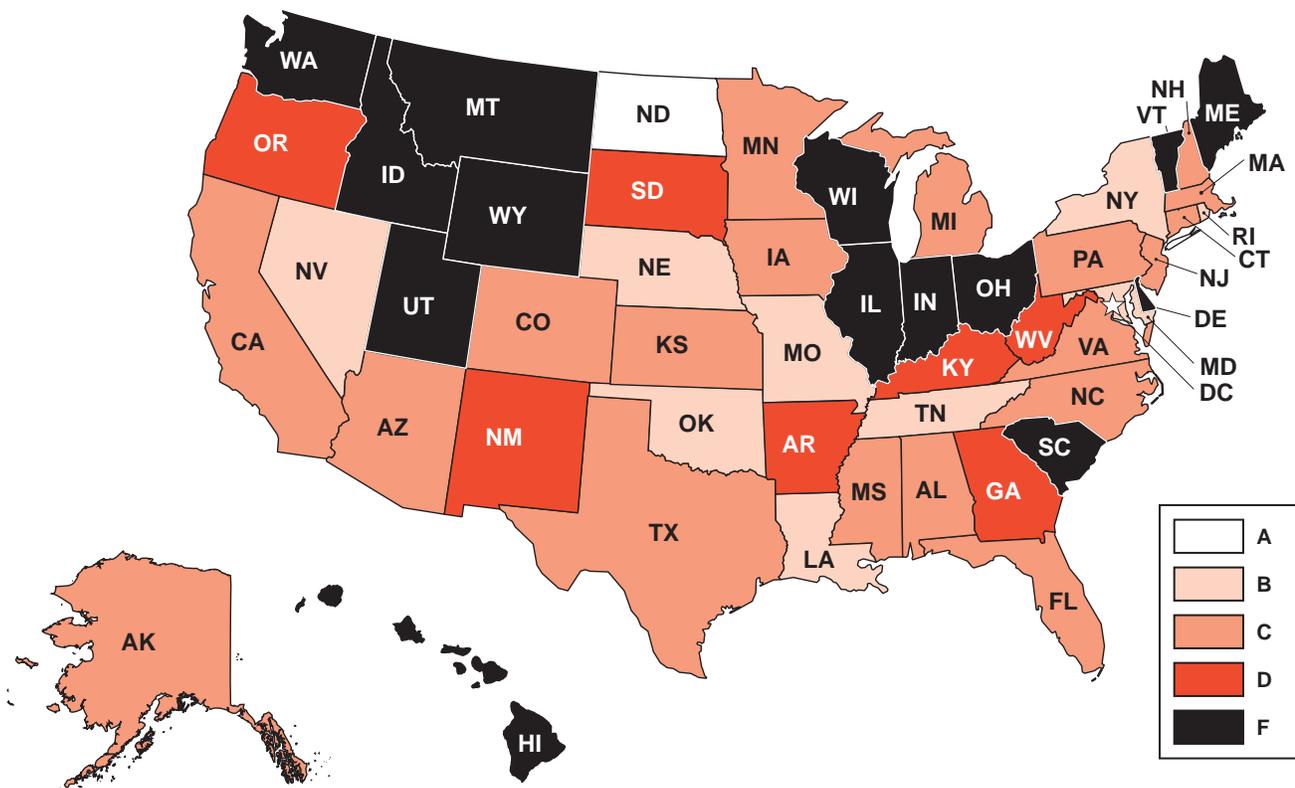
Figure 6. Letter Grades Received by States in Disaster Preparedness, 2009 and 2014



needs patients (44), mental health patients (35), patients dependent on dialysis (27), and patients dependent on medications for chronic conditions (25). Fewer states, however, include patients dependent on psychotropic medications (18) in their medical response plans.

Some *Disaster Preparedness* indicators used in the 2009 Report Card were achieved by all or virtually all states and were not included in this Report Card. New indicators were added to the category which revealed wide variations across the states and resulted in far fewer states receiving an A and far more receiving an F. The overall national grade for the category fell from a C+ to a C-. Only two states held on to A grades, the District of Columbia and North Dakota, while Louisiana, New York, and Nevada moved up in the rankings to fill out the top five places. The five bottom-ranking states were Ohio, Washington, Maine, Idaho, and Wyoming.

DISASTER PREPAREDNESS STATE GRADES



Recommendations

Emergency medicine has played a critical role in the delivery of health care for decades, serving as the foundation for treating acute illness and severe injury, addressing key public health challenges and ensuring effective medical response to disasters and mass casualty events. Today's emergency departments are providing even more vital services in their expanding role as the health-care entry point for millions of people each year. Emergency physicians make vital decisions every day about high-quality care for their patients and cost-effective treatments. They also coordinate care among providers and set the direction of care for hospitalized patients and for discharged patients in appropriate follow-up settings.

In an environment in which the nation seeks to enhance access to care, improve quality of care, and generate meaningful cost containment, emergency departments are uniquely positioned to significantly advance these goals. To that end, the American College of Emergency Physicians makes the following recommendations.

Protect access to emergency care as health care reforms are implemented. As more Americans become insured under the Affordable Care Act, many for the first time, emergency departments are likely to play a more pivotal role and to become more stressed. Measures to protect access to high-quality emergency care, such as ensuring an adequate health professional workforce and increasing hospital capacity, are essential.

Support programs that recognize the pivotal role emergency medicine plays in care coordination and transitions of care. Emergency physicians provide services that were once reserved for inpatient hospital units and other health care facilities. They mobilize medical resources to diagnose and treat patients, refer patients to other specialists, and coordinate patients' transitions to other settings for additional care. Initiatives that support and expand these efforts can help substantially enhance quality of care and reduce costs.

Reduce the incidence of hospital crowding and boarding of admitted patients in the emergency department. Timely access to quality emergency care continues to be threatened by crowding, boarding, and ambulance diversion. Further development is needed of effective low- and no-cost strategies to ensure implementation of systems to identify and prevent these problems.

Enact federal and state medical liability reforms that enhance timely access to quality care, particularly reforms that provide appropriate liability protections for EMTALA-mandated care. Failure to enact meaningful liability reform continues to create barriers to health care access, including access to essential on-call specialists in emergencies. Additionally, meaningful reforms can help reduce unnecessary health care costs associated with the widespread practice of defensive medicine.

Increase coordination and regionalization of specialized emergency services and support funding of federally authorized regional pilot programs. Regionalization helps direct patients with acute or life-threatening illness or injury to designated facilities that can provide comprehensive, specialized treatment, allowing for more effective use of limited health care resources.

Devote consistent federal and state funding to ensure adequate and sustainable local and regional disaster preparedness. Federal and state funding for emergency medical preparedness and response to natural and man-made disasters remains inadequate. Sustained investment in disaster preparedness is critical for communities and states to be able to respond in times of crisis.

Continue to increase the use of systems, standards, and information technologies to track and enhance the quality and patient safety environment. Health care systems need to provide the highest quality of care possible. To that end, all stakeholders must maintain an unwavering commitment to the continued development and implementation of initiatives that effectively measure and improve quality of care through process improvements, data collection and monitoring, and technological enhancements.

Continue pursuit of state laws that help reduce the number of preventable deaths and injuries, particularly those that address traffic-related injuries and fatalities. Many emergency visits are driven by preventable injuries or exacerbations of illnesses, such as diabetes and cardiovascular disease, which can be prevented or effectively managed. Supporting programs aimed at addressing these problems through public education and changes in state and local policy is essential.

Expand access to standardized and user-friendly state and/or federal prescription drug monitoring programs to decrease unintentional deaths by drug overdose. The epidemic of prescription drug overdose plagues communities nationwide and requires a multi-faceted response by many stakeholders. One element of this response must be to expand robust government prescription drug monitoring programs that enable providers to quickly assess the recent prescription drug history of patients.

Fund graduate medical education programs that support emergency care, especially those related to addressing physician shortages in disadvantaged areas and in rural areas. Emergency medicine residency programs must have an adequate, predictable, and stable source of funds to ensure an ample supply of residency trained emergency medicine specialists. Groups tasked with examining or revising policy relating to GME reform should include emergency medicine representatives.

Support emergency medicine research, including basic, clinical, and translational research into improving the delivery of emergency care services. The continued advancement of quality emergency medicine is dependent upon high quality research. Support is needed for all types of emergency medicine research, with a focus on developing and disseminating evidence-based best practices to emergency physicians and programs.

Alabama

Alabama continues to support *Disaster Preparedness* systems and has worked to maintain an adequate *Quality and Patient Safety Environment*. However, the state continues to struggle with workforce shortages related to *Access to Emergency Care* and high rates of preventable injury and chronic disease.

Strengths. Alabama has a relatively strong *Disaster Preparedness* system with several provisions in place to protect its citizens in the event of a disaster. For instance, the state addresses special needs patients, patients dependent on medication for chronic conditions, patients dependent on dialysis, mental health patients, and patients on psychotropic medications in its medical response plans. Furthermore, Alabama has made great improvements since the last Report Card in hospital capacity to respond to a disaster or mass casualty event, ranking among the top states for its bed surge capacity (1,634.0 beds per 1 million people), burn unit beds (11.0 per 1 million), and intensive care unit beds (350.1 per 1 million). The state also has strong liability protections in place for health care workers responding to a disaster, which will encourage a timely and effective medical response.

Alabama has been working to maintain its *Quality and Patient Safety Environment* by continuing to fund a state emergency medical services (EMS) medical director as well as quality improvement initiatives within the EMS system. The state has or is working on a stroke system of care, and it has destination policies in place that allow EMS to bypass local hospitals to take stroke patients to a hospital specialty center. In addition, 95% of patients with acute myocardial infarction are given percutaneous coronary intervention within 90 minutes, and the median time to transfer to another facility for chest pain patients is well below the average across the states (60 versus 72 minutes).

Challenges. Alabama has failed to address its health care workforce shortage since the last Report Card, severely affecting overall *Access to Emergency Care*. Despite a slight increase in the number of emergency physicians, the state ranks 50th for having only 7.5 emergency physicians per 100,000 people. Alabama has low rates of special-

ists, including neurosurgeons, orthopedists, and plastic surgeons, as well as physicians accepting Medicare (2.0 per 100 beneficiaries) and mental health providers, with an additional 1.7 full-time providers needed per 100,000 people. While the state has lower-than-average rates of adults (14.9%) and children (7.3%) with no health insurance, a relatively large proportion of adults are underinsured (9.7%), which may further impede access to care.

Contributing to Alabama's workforce shortage is an unfavorable *Medical Liability Environment*, which has not improved since the previous Report Card. The state continues to lack reforms that would require clear and convincing evidence of wrongdoing in medical liability cases involving Emergency Medical Treatment and Labor Act (EMTALA)-mandated care and medical liability caps on non-economic damages. Alabama has also failed to abolish joint and several liability or pass legislation that would prevent apologies made by health care providers from being used as evidence of wrongdoing. Finally, the average malpractice award payment is \$330,942, representing a 12.5% increase since 2009.

Alabama's workforce shortage is a critical challenge in light of the high rates of fatal injuries in several categories. Alabama has some of the nation's highest rates of traffic fatalities (16.6 per 100,000 people), bicyclist fatalities (10.9 per 100,000 cyclists), pedestrian fatalities (11.0 per 100,000 pedestrians), homicides and suicides (22.5 per 100,000 people), and unintentional fire- or burn-related deaths (2.0 per 100,000 people). Alabama's inhabitants also suffer disproportionately from chronic disease risk factors with high rates of adult and child obesity (32.0 and 18.6%, respectively) and a high percentage of adults who currently smoke (24.3%).

Recommendations. In the area of *Public Health and Injury Prevention*, there are several steps that Alabama could take to advance the health and safety of its citi-

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	30	D-	41	F
Quality & Patient Safety Environment	18	B-	28	C
Medical Liability Environment	31	D	31	D
Public Health & Injury Prevention	44	F	43	F
Disaster Preparedness	21	B-	15	C+
OVERALL	38	D+	44	D

zens. With high rates of traffic fatalities, Alabama should consider strengthening its safety belt and child safety seat legislation. The state may consider expanding primary enforcement of its current adult seat belt law to cover all vehicle seats. Similarly, child safety restraint laws may be expanded to require that children through age 8 use booster seats, as opposed to current requirements that cover children through age 5. The state also lacks smoke-free legislation that targets worksites, restaurants, and bars, despite the high rates of adults who currently smoke and the known poor chronic health outcomes associated with tobacco use.

Alabama has failed to address its health care workforce shortage.

Alabama must work diligently to increase its health care workforce and implement measures to attract and retain emergency physicians, specialists, and primary care providers. Supporting a more favorable *Medical Liability Environment* would help address this issue. As such, the state should consider instituting additional liability protections for EMTALA-mandated care, requiring pretrial screening panels to determine whether a medical liability case has merit, and placing a \$250,000 medical liability cap on non-economic damages.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	4.5	
Emergency physicians per 100,000 pop.	7.5	
Neurosurgeons per 100,000 pop.	1.7	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.8	
Plastic surgeons per 100,000 pop.	1.7	
ENT specialists per 100,000 pop.	3.9	
Registered nurses per 100,000 pop.	945.1	
Additional primary care FTEs needed per 100,000 pop.	3.2	
Additional mental health FTEs needed per 100,000 pop.	1.7	
% of children able to see provider	95.4	
Level I or II trauma centers per 1M pop.	1.0	
% of population within 60 minutes of Level I or II trauma center	75.2	
Accredited chest pain centers per 1M pop.	3.1	
% of population with an unmet need for substance abuse treatment	6.7	
Pediatric specialty centers per 1M pop.	3.5	
Physicians accepting Medicare per 100 beneficiaries	2.0	
Medicaid fee levels for office visits as a % of the national average	92.0	
% change in Medicaid fees for office visits (2007 to 2012)	0.0	
% of adults with no health insurance	14.9	
% of adults underinsured	9.7	
% of children with no health insurance	7.3	
% of children underinsured	15.2	
% of adults with Medicaid	9.4	
Emergency departments per 1M pop.	18.5	
Hospital closures in 2011	3	
Staffed inpatient beds per 100,000 pop.	384.3	
Hospital occupancy rate per 100 staffed beds	62.1	
Psychiatric care beds per 100,000 pop.	24.5	
Median minutes from ED arrival to ED departure for admitted patients	240	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		D
Lawyers per 10,000 pop.	10.6	
Lawyers per physician	0.5	
Lawyers per emergency physician	14.1	
ATRA judicial hellholes (range 2 to -6)	1	
Malpractice award payments/ 100,000 pop.	0.8	
Average malpractice award payments	\$330,942	
Databank reports per 1,000 physicians	13.1	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	7.8	
Average medical liability insurance premium for primary care physicians	\$7,484	
Average medical liability insurance premium for specialists	\$36,126	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	Yes, No offset	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	6.2	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2006)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	68.3	
% of hospitals with electronic medical records	89.4	
% of patients with AMI given PCI within 90 minutes of arrival	95	
Median time to transfer to another facility for acute coronary intervention	60	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	40.0	
% of hospitals having or planning to develop a diversity strategy/plan	34.4	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	16.6	
Bicyclist fatalities per 100,000 cyclists	10.9	
Pedestrian fatalities per 100,000 pedestrians	11.0	
% of traffic fatalities alcohol related	35	
Front occupant restraint use (%)	88.0	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	5	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	79.2	
% of adults aged 65+ who received flu vaccine in past year	62.6	
% of adults aged 65+ who ever received pneumococcal vaccine	68.3	
Fatal occupational injuries per 1M workers	37.8	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	22.5	
Unintentional fall-related fatal injuries per 100,000 pop.	4.5	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	2.0	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.7	
Unintentional poisoning-related fatal injuries per 100,000 pop.	10.7	
Total injury prevention funds per 1,000 pop.	\$286.61	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	8.7	
Binge alcohol drinkers, % of adults	13.7	
Current smokers, % of adults	24.3	
% of adults with BMI >30	32.0	
% of children obese	18.6	
Cardiovascular disease disparity ratio	2.7	
HIV diagnoses disparity ratio	7.5	
Infant mortality disparity ratio	1.8	
DISASTER PREPAREDNESS		C+
Per capita federal disaster preparedness funds	\$4.84	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.2	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	1634.0	
ICU beds per 1M pop.	350.1	
Burn unit beds per 1M pop.	11.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	6.2	
Nurses in ESAR-VHP per 1M pop.	333.3	
Behavioral health professionals in ESAR-VHP per 1M pop.	14.7	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	Yes	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	40.8	

NR = Not reported
N/A = Not applicable

Alaska

Alaska has made great strides in improving its *Disaster Preparedness*, implementing policies and procedures that allow the state to respond to natural disasters and protect its citizens. Improvements, however, are still needed in the areas of *Public Health and Injury Prevention*, *Access to Emergency Care*, and *Quality and Patient Safety Environment*.

Strengths. Alaska has made great improvements in its *Disaster Preparedness*, moving from 49th to 18th in this category since the 2009 Report Card. It ranks fourth in number of nurses registered in the Emergency System for Advanced Registration of Volunteer Health Professionals (ESAR-VHP; 853.1 per 1 million people) and 20th in number of physicians registered (31.4 per 1 million). Alaska RESPOND, the medical strike team, is also part of the national ESAR-VHP system, further enhancing medical response. Alaska plans to exercise the Patient Forward Movement in a statewide Alaska Shield 2014 Full-Scale Exercise to test additional medical teams, including out-of-state physicians. In addition, it has developed a statewide medical communication system with redundancy, and the state is in the process of procuring communications trailers and backpacks to provide additional layers of redundancy.

Alaska continues to have a strong *Medical Liability Environment*. Despite a relatively high average malpractice award payment (\$405,000), Alaska has enacted such protections as mandatory pretrial screening panels, joint and several liability reform, and a \$400,000 medical liability cap on non-economic damages. It also has the 16th lowest average medical liability insurance premiums for both primary care physicians (\$9,203) and specialists (\$39,853), as well as the second highest rate of insurers writing medical liability policies (31.8 per 1,000 physicians).

While Alaska fared poorly overall with regard to the *Quality and Patient Safety En-*

vironment, the state has made some noteworthy improvements. It ranks among the best in the nation for the proportion of hospitals adopting electronic medical records and computerized practitioner order entry and has improved the proportion of patients with acute myocardial infarction who are given percutaneous coronary intervention within 90 minutes of arrival. Alaska has also allocated funding for quality improvement of the EMS system.

Challenges. Alaska is a large, rural state with a very low population density compared to other states, and it faces unique challenges, particularly in the area of *Access to Emergency Care*. Although it has high numbers of board-certified emergency physicians (14.8 per 100,000 people) and emergency physicians (16.1 per 100,000), the state faces workforce shortages in several professions, including neurosurgeons (1.2 per 100,000), plastic surgeons (1.4 per 100,000), and registered nurses (754.3 per 100,000). Since about half the state's

High rates of preventable deaths and low vaccination rates point to the need for a stronger public health system.

population lives in the Anchorage area, home to the state's only Level II trauma center, only 57.9% of Alaska's population is within 60 minutes of Level I or II trauma center care. The state also has low rates of

adequate health insurance coverage, with 20.9% of its adults and 10.7% of its children having no health insurance at all.

Furthermore, Alaska ranks poorly in *Public Health and Injury Prevention*. It has the lowest rate of adults aged 65 and older who received an influenza vaccination in the past 12 months (51.8%) and has lower-than-average immunization rates among children aged 19–35 months (73.2%). Alaska has the highest rate of fatal occupational injuries in the nation (103.4 per 1 million workers) and among the highest rates of homicides and suicides and unintentional poisoning-related deaths, which includes drug overdoses. It also has relatively high proportions of adults who binge-drink (20.8%) and smoke (22.9%).

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	28	C-	38	F
Quality & Patient Safety Environment	45	D-	46	F
Medical Liability Environment	8	B	9	B
Public Health & Injury Prevention	39	D-	44	F
Disaster Preparedness	49	F	18	C
OVERALL	38	D+	42	D

Recommendations. Alaska's high rates of preventable deaths and low vaccination rates point to the need for a stronger public health system. The state needs to fund and support activities related to vaccination and injury prevention in order to improve the well-being of its citizens. Alaska should consider funding injury prevention efforts to address its highest-in-the-nation rate of fatal occupational injuries. The state should also consider efforts to reduce binge drinking and drug use, which likely contribute to disproportionately high rates of homicide and suicide and poisoning-related deaths.

The state also needs to continue to improve the *Quality and Patient Safety Environment* by implementing triage and destination policies for stroke and ST-elevation myocardial infarction patients and a uniform system for providing pre-arrival instructions, which provide a critical opportunity to provide life-saving care while waiting for first responders to arrive. Alaska's *Quality and Patient Safety Environment* will also be improved greatly when it incorporates the Centers for Disease Control and Prevention's Guidelines for Field Triage into its State Trauma System Plan, which ultimately will improve the care received by the state's emergency patients.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	14.8	
Emergency physicians per 100,000 pop.	16.1	
Neurosurgeons per 100,000 pop.	1.2	
Orthopedists and hand surgeon specialists per 100,000 pop.	11.5	
Plastic surgeons per 100,000 pop.	1.4	
ENT specialists per 100,000 pop.	4.2	
Registered nurses per 100,000 pop.	754.3	
Additional primary care FTEs needed per 100,000 pop.	3.6	
Additional mental health FTEs needed per 100,000 pop.	1.0	
% of children able to see provider	94.0	
Level I or II trauma centers per 1M pop.	1.4	
% of population within 60 minutes of Level I or II trauma center	57.9	
Accredited chest pain centers per 1M pop.	0.0	
% of population with an unmet need for substance abuse treatment	9.4	
Pediatric specialty centers per 1M pop.	2.7	
Physicians accepting Medicare per 100 beneficiaries	4.2	
Medicaid fee levels for office visits as a % of the national average	229.1	
% change in Medicaid fees for office visits (2007 to 2012)	26.0	
% of adults with no health insurance	20.9	
% of adults underinsured	8.8	
% of children with no health insurance	10.7	
% of children underinsured	15.5	
% of adults with Medicaid	8.0	
Emergency departments per 1M pop.	16.4	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	262.1	
Hospital occupancy rate per 100 staffed beds	63.5	
Psychiatric care beds per 100,000 pop.	34.3	
Median minutes from ED arrival to ED departure for admitted patients	274	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B
Lawyers per 10,000 pop.	13.5	
Lawyers per physician	0.6	
Lawyers per emergency physician	8.4	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	2.1	
Average malpractice award payments	\$405,000	
Databank reports per 1,000 physicians	18.5	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	31.8	
Average medical liability insurance premium for primary care physicians	\$9,203	
Average medical liability insurance premium for specialists	\$39,853	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	Yes	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		F
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	0	
Adverse event reporting required	No	
% of counties with E-911 capability	55.6	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No protocols	
State has or is working on a stroke system of care	No	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	No	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	No	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	94.1	
% of hospitals with electronic medical records	100.0	
% of patients with AMI given PCI within 90 minutes of arrival	90	
Median time to transfer to another facility for acute coronary intervention	122	
% of patients with AMI who received aspirin within 24 hours	100	
% of hospitals collecting data on race/ethnicity and primary language	40.7	
% of hospitals having or planning to develop a diversity strategy/plan	29.6	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	7.0	
Bicyclist fatalities per 100,000 cyclists	2.7	
Pedestrian fatalities per 100,000 pedestrians	1.5	
% of traffic fatalities alcohol related	33	
Front occupant restraint use (%)	89.3	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	9	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	73.2	
% of adults aged 65+ who received flu vaccine in past year	51.8	
% of adults aged 65+ who ever received pneumococcal vaccine	66.2	
Fatal occupational injuries per 1M workers	103.4	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	27.4	
Unintentional fall-related fatal injuries per 100,000 pop.	4.5	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.3	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.3	
Unintentional poisoning-related fatal injuries per 100,000 pop.	15.8	
Total injury prevention funds per 1,000 pop.	\$1,069.72	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	3.8	
Binge alcohol drinkers, % of adults	20.8	
Current smokers, % of adults	22.9	
% of adults with BMI >30	27.4	
% of children obese	14.0	
Cardiovascular disease disparity ratio	2.4	
HIV diagnoses disparity ratio	7.5	
Infant mortality disparity ratio	2.8	
DISASTER PREPAREDNESS		C
Per capita federal disaster preparedness funds	\$15.64	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	5.5	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	NR	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	1730.8	
ICU beds per 1M pop.	229.7	
Burn unit beds per 1M pop.	0.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	31.4	
Nurses in ESAR-VHP per 1M pop.	853.1	
Behavioral health professionals in ESAR-VHP per 1M pop.	12.3	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	Yes	
Liability protections for health care workers during a disaster (range 0-4)	NR	
% of RNs received disaster training	46.9	

NR = Not reported
N/A = Not applicable

Arizona

Since the last Report Card, Arizona has made significant improvements to its *Medical Liability Environment* and addressed some challenges in *Public Health and Injury Prevention*. However, the state continues to struggle with health care workforce shortages and overall *Access to Emergency Care*.

Strengths. Arizona has made great strides in improving its *Medical Liability Environment*, having instituted several reforms that help protect practitioners and reduce frivolous lawsuits. It provides additional liability protections for Emergency Medical Treatment and Labor Act (EMTALA)-mandated emergency care that require clear and convincing evidence of negligence. It has also mandated expert witness rules that require that the witness be of the same specialty as the defendant. While the state still has relatively high average medical liability insurance premiums for primary care physicians (\$17,883) and specialists (\$65,100), these rates are considerably lower than reported in 2009.

Arizona continues to improve its *Quality and Patient Safety Environment* with strong and effective policies, including destination policies in place for both stroke and ST-elevation myocardial infarction patients, as well as funding for quality improvement of the EMS system. The state ranks among the top 10 for indicators related to quality of care for patients suffering cardiac events, including the proportion of patients with acute myocardial infarction given percutaneous coronary intervention within 90 minutes of arrival (91%) and the median time to transfer to another facility for chest pain patients (54 minutes). Arizona also has a unique sudden cardiac arrest reporting and education network called SHARE (Save Hearts in Arizona Research and Education), which includes the majority of people living in Arizona.

There is a stark need for better access to mental health care and substance abuse treatment in Arizona.

Challenges. Arizona continues to struggle with *Access to Emergency Care* and ranks close to last in the nation in this category. The state ranks among the bottom 10 for access to several essential medical professionals, including registered nurses; ear, nose, and throat specialists; and orthopedists and hand surgeons. Arizona also has a great need for primary care and mental health care providers (4.3 and 2.1 full-time providers needed per 100,000 people, respectively). There is a glaring need for better access to mental health care and substance abuse treatment in Arizona; the state has one of the lowest rates of psychiatric care beds available (11.6 per 100,000 people) and one of the highest levels of unmet need for substance abuse treatment (10.1%). Emergency physicians in the state report that psychiatric patients often spend days in the emergency department (ED) waiting for admission to inpatient behavioral health treatment beds.

Despite improvements in *Public Health and Injury Prevention*, Arizona still lags in the area of early childhood immunizations: only 68.1% of children received recommended immunizations. Although it has a relatively low obesity rate among adults (24.7%), the very high rate among children (19.8%) is a growing public health emergency. The state also has some of the highest rates of pedestrian fatalities (9.1 per 100,000 pedestrians), fall-related deaths (12.2 per 100,000), and unintentional poisoning-related deaths, which include drug overdoses (14.7 per 100,000).

While Arizona has maintained its strong *Disaster Preparedness* policies and procedures, it has lagged behind other states in the number of physicians, nurses, and behavioral health providers registered in the Emergency System for Advance Registration of Volunteer Health Professionals. The state also falls below average for bed surge capacity and intensive care unit beds per 1 million, which could impede timely, safe,

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	48	F	48	F
Quality & Patient Safety Environment	29	C	14	B-
Medical Liability Environment	48	F	29	C-
Public Health & Injury Prevention	40	D-	26	D+
Disaster Preparedness	9	A-	24	C-
OVERALL	45	D+	31	D+

and effective emergency care response during a major disaster or mass casualty event.

Recommendations. Arizona desperately needs to improve *Access to Emergency Care* by both growing the state's health care workforce and increasing hospital capacity to reduce ED boarding and crowding. Additional graduate medical education funding for more residency positions could be one strategy to help address the workforce shortage issue. The state needs to cultivate an environment that attracts and retains specialists, particularly for mental health care and substance abuse care, as well as on-call specialty care. The low numbers of psychiatric care beds, staffed inpatient beds, and number of EDs overall likely contribute to boarding and crowding, as evidenced in higher-than-average ED wait times (292 minutes from ED arrival to departure for admitted patients).

Arizona must continue to improve its *Medical Liability Environment*. While the state has taken major steps forward, more attention is needed to help further reduce physician liability insurance premiums to ensure that high insurance costs do not inhibit efforts to address physician workforce shortages. Adoption of pretrial screening panels could help further weed out frivolous lawsuits and reduce unnecessary liability-related costs.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	9.8	
Emergency physicians per 100,000 pop.	13.5	
Neurosurgeons per 100,000 pop.	1.7	
Orthopedists and hand surgeon specialists per 100,000 pop.	7.4	
Plastic surgeons per 100,000 pop.	2.2	
ENT specialists per 100,000 pop.	2.3	
Registered nurses per 100,000 pop.	691.3	
Additional primary care FTEs needed per 100,000 pop.	4.3	
Additional mental health FTEs needed per 100,000 pop.	2.1	
% of children able to see provider	94.6	
Level I or II trauma centers per 1M pop.	1.1	
% of population within 60 minutes of Level I or II trauma center	89.7	
Accredited chest pain centers per 1M pop.	4.6	
% of population with an unmet need for substance abuse treatment	10.1	
Pediatric specialty centers per 1M pop.	1.8	
Physicians accepting Medicare per 100 beneficiaries	3.3	
Medicaid fee levels for office visits as a % of the national average	104.0	
% change in Medicaid fees for office visits (2007 to 2012)	-8.9	
% of adults with no health insurance	18.6	
% of adults underinsured	10.0	
% of children with no health insurance	13.5	
% of children underinsured	18.3	
% of adults with Medicaid	11.8	
Emergency departments per 1M pop.	9.3	
Hospital closures in 2011	1	
Staffed inpatient beds per 100,000 pop.	238.0	
Hospital occupancy rate per 100 staffed beds	62.6	
Psychiatric care beds per 100,000 pop.	11.6	
Median minutes from ED arrival to ED departure for admitted patients	292	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		C-
Lawyers per 10,000 pop.	14.1	
Lawyers per physician	0.6	
Lawyers per emergency physician	10.5	
ATRA judicial hellholes (range 2 to -6)	1	
Malpractice award payments/ 100,000 pop.	2.7	
Average malpractice award payments	\$315,364	
Databank reports per 1,000 physicians	39.2	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	6	
Average medical liability insurance premium for primary care physicians	\$17,883	
Average medical liability insurance premium for specialists	\$65,100	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	No	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	Yes	
Joint and several liability abolished	Yes	

NR = Not reported
N/A = Not applicable

Collateral source rule, provides for awards to be offset	Yes, No offset	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		B-
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	18.9	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	88.6	
% of hospitals with electronic medical records	92.0	
% of patients with AMI given PCI within 90 minutes of arrival	91	
Median time to transfer to another facility for acute coronary intervention	54	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	51.5	
% of hospitals having or planning to develop a diversity strategy/plan	30.3	
PUBLIC HEALTH & INJURY PREVENTION		D+
Traffic fatalities per 100,000 pop.	8.8	
Bicyclist fatalities per 100,000 cyclists	3.9	
Pedestrian fatalities per 100,000 pedestrians	9.1	
% of traffic fatalities alcohol related	32	
Front occupant restraint use (%)	82.9	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	4	
Distracted driving legislation (range 0-4)	0	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	68.1	
% of adults aged 65+ who received flu vaccine in past year	57.9	
% of adults aged 65+ who ever received pneumococcal vaccine	71.3	
Fatal occupational injuries per 1M workers	23.4	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	23.2	
Unintentional fall-related fatal injuries per 100,000 pop.	12.2	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.6	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	14.7	
Total injury prevention funds per 1,000 pop.	\$68.71	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	6.0	
Binge alcohol drinkers, % of adults	18.0	
Current smokers, % of adults	19.2	
% of adults with BMI >30	24.7	
% of children obese	19.8	
Cardiovascular disease disparity ratio	1.5	
HIV diagnoses disparity ratio	5.0	
Infant mortality disparity ratio	2.5	
DISASTER PREPAREDNESS		C-
Per capita federal disaster preparedness funds	\$5.08	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	NR	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.2	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	750.3	
ICU beds per 1M pop.	285.4	
Burn unit beds per 1M pop.	8.1	
Verified burn centers per 1M pop.	0.2	
Physicians in ESAR-VHP per 1M pop.	19.2	
Nurses in ESAR-VHP per 1M pop.	69.1	
Behavioral health professionals in ESAR-VHP per 1M pop.	5.6	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	NR	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	37.0	

Arkansas

Arkansas continues to struggle with its emergency care environment but has made laudable improvements in *Quality and Patient Safety* and *Disaster Preparedness* over the past 5 years. Reversing the trend in its *Medical Liability Environment*, strengthening current systems for ensuring quality health care and patient safety, and improving *Access to Emergency Care* will help the state face its formidable public health and injury problems.

Strengths. Arkansas moved up 12 places in *Disaster Preparedness*, largely due to its enhanced hospital capacity for responding to a disaster. The state has one of the highest per capita number of ICU beds (396.0 per 1 million people), as well as a high bed surge capacity (1,332.6 per 1 million). Since the previous Report Card, Arkansas has been accredited by the Emergency Management Accreditation Program and implemented liability protections for health care workers during a declared disaster.

Arkansas has also made improvements to its *Quality and Patient Safety Environment*. The state has or is working on a stroke system of care, as well as a percutaneous coronary intervention (PCI) network or ST-elevation myocardial infarction (STEMI) system of care, and has implemented destination policies to allow EMS to bypass local hospitals to take STEMI and stroke patients to hospital specialty centers. The state ranks fifth in the nation in the time that it takes to transfer a chest pain patient to another facility (50 minutes). Arkansas hospitals have demonstrated a commitment to quality improvement, with 77.7% collecting data on race/ethnicity and primary language and 51.5% having or planning to develop a diversity strategy.

While Arkansas received poor marks in *Access to Emergency Care* overall, it has seen a number of improvements related to its hospital capacity. In 2009, Arkansas was the only state in the nation with no Level I

or II trauma centers; now the state has four certified trauma centers, greatly improving access to life-saving emergency care. The state has the third highest number of psychiatric care beds per capita (50.0 per 100,000 people), as well as a relatively high rate of staffed inpatient beds (377.9 per 100,000 people) and low hospital occupancy rate (57.9 per 100 staffed beds). As such, the state enjoys the 13th lowest emergency department (ED) wait time (223 minutes from ED arrival to ED departure for admitted patients).

Challenges. Arkansas faces significant challenges in several areas. It continues to be one of the last states in terms of *Public Health and Injury Prevention*, with poor ratings on a wide range of indicators. Arkansas has one of the highest rates of traffic fatalities for drivers and passengers (17.9 per 100,000 people), as well as notably high rates of bicyclist fatalities (11.3 per 100,000 cyclists) and pedestrian fatalities (8.1 per 100,000 pedestrians). Arkansas fares poorly in indicators of chronic disease burden and risk. The state has one of the highest adult smoking rates (27.0%) and very high rates of obesity among adults (30.9%) and children (20.0%).

Arkansas suffers several notable workforce shortages, which greatly impede *Access to Emergency Care*. The state ranks among the bottom five for emergency physicians, orthopedists and hand surgery specialists, and plastic surgeons. The state also has the lowest per capita rate of physicians accepting Medicare (1.7 per 100 beneficiaries), and its Medicaid fee levels have remained stagnant since 2007.

Arkansas's *Medical Liability Environment* is mixed. On the positive side, the state has one of the lowest average medical liability insurance premiums for primary care physicians (\$7,119) and specialists (\$31,602). On the negative side, it has seen an increase in the average medical malpractice award payment; had its provisions for case

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	35	D-	39	F
Quality & Patient Safety Environment	50	F	41	D
Medical Liability Environment	12	C+	37	D-
Public Health & Injury Prevention	47	F	48	F
Disaster Preparedness	48	F	36	D-
OVERALL	51	D-	50	D-

certification declared unconstitutional; and has failed to enact many important liability reforms.

Recommendations. Arkansas's high rate of traffic-related fatalities points to a need for education and legislation related to traffic safety. The state should consider passing legislation to require motorcycle riders to wear a helmet and require that all car occupants use seat belts in all seats. Additionally, given the third highest rate of adults who currently smoke in the nation, public health officials in Arkansas should focus on passing smoke-free legislation for bars, restaurants, and worksites.

To help combat its workforce shortages and improve overall *Access to Emergency Care*, Arkansas should enact such medical liability reforms as a medical liability cap on non-economic damages, additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act (EMTALA), pretrial screening panels, and a complete repeal of joint and several liability. Improving the *Medical Liability Environment* will help to ensure that the state can recruit and retain a health care workforce that matches the gains made in hospital capacity and specialty facilities.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	4.6	
Emergency physicians per 100,000 pop.	8.3	
Neurosurgeons per 100,000 pop.	2.1	
Orthopedists and hand surgeon specialists per 100,000 pop.	6.9	
Plastic surgeons per 100,000 pop.	1.2	
ENT specialists per 100,000 pop.	3.2	
Registered nurses per 100,000 pop.	801.4	
Additional primary care FTEs needed per 100,000 pop.	1.5	
Additional mental health FTEs needed per 100,000 pop.	0.9	
% of children able to see provider	95.0	
Level I or II trauma centers per 1M pop.	1.4	
% of population within 60 minutes of Level I or II trauma center	17.9	
Accredited chest pain centers per 1M pop.	2.4	
% of population with an unmet need for substance abuse treatment	8.0	
Pediatric specialty centers per 1M pop.	3.7	
Physicians accepting Medicare per 100 beneficiaries	1.7	
Medicaid fee levels for office visits as a % of the national average	83.8	
% change in Medicaid fees for office visits (2007 to 2012)	0.0	
% of adults with no health insurance	20.4	
% of adults underinsured	9.8	
% of children with no health insurance	8.1	
% of children underinsured	15.0	
% of adults with Medicaid	8.9	
Emergency departments per 1M pop.	26.4	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	377.9	
Hospital occupancy rate per 100 staffed beds	57.9	
Psychiatric care beds per 100,000 pop.	50.0	
Median minutes from ED arrival to ED departure for admitted patients	223	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		D-
Lawyers per 10,000 pop.	11.7	
Lawyers per physician	0.6	
Lawyers per emergency physician	14.1	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	2.0	
Average malpractice award payments	\$286,534	
Databank reports per 1,000 physicians	25.5	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	11.8	
Average medical liability insurance premium for primary care physicians	\$7,119	
Average medical liability insurance premium for specialists	\$31,602	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

NR = Not reported
N/A = Not applicable

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		D
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	8.1	
Adverse event reporting required	No	
% of counties with E-911 capability	94.7	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	68.5	
% of hospitals with electronic medical records	85.4	
% of patients with AMI given PCI within 90 minutes of arrival	93	
Median time to transfer to another facility for acute coronary intervention	50	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	77.7	
% of hospitals having or planning to develop a diversity strategy/plan	51.5	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	17.9	
Bicyclist fatalities per 100,000 cyclists	11.3	
Pedestrian fatalities per 100,000 pedestrians	8.1	
% of traffic fatalities alcohol related	35	
Front occupant restraint use (%)	78.4	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	5	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	79.1	
% of adults aged 65+ who received flu vaccine in past year	57.3	
% of adults aged 65+ who ever received pneumococcal vaccine	68.5	
Fatal occupational injuries per 1M workers	66.9	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	22.3	
Unintentional fall-related fatal injuries per 100,000 pop.	7.8	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	2.0	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.6	
Unintentional poisoning-related fatal injuries per 100,000 pop.	8.8	
Total injury prevention funds per 1,000 pop.	\$1,199.77	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	1	
Infant mortality rate per 1,000 live births	7.3	
Binge alcohol drinkers, % of adults	14.1	
Current smokers, % of adults	27.0	
% of adults with BMI >30	30.9	
% of children obese	20.0	
Cardiovascular disease disparity ratio	2.5	
HIV diagnoses disparity ratio	5.8	
Infant mortality disparity ratio	2.5	
DISASTER PREPAREDNESS		D-
Per capita federal disaster preparedness funds	\$5.93	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	No	
Public health and emergency physician input during an ESF-8 response	Yes, No	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	4.1	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	NR	
Patients on medication for chronic conditions in medical response plan	NR	
Medical response plan for supplying dialysis	NR	
Mental health patients in medical response plan	NR	
Medical response plan for supplying psychotropic medication	NR	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	No	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	County- or city-wide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	1332.6	
ICU beds per 1M pop.	396.0	
Burn unit beds per 1M pop.	3.4	
Verified burn centers per 1M pop.	0.3	
Physicians in ESAR-VHP per 1M pop.	19.3	
Nurses in ESAR-VHP per 1M pop.	108.5	
Behavioral health professionals in ESAR-VHP per 1M pop.	9.2	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	Yes	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	36.3	

California

California continues to rank among the top 10 states for *Public Health and Injury Prevention* and has improved in three of the other four categories. However, this large and diverse state suffers from poor overall *Access to Emergency Care*, with an inadequate supply of medical facilities and low rates of health insurance coverage.

Strengths. California is a national leader in *Public Health and Injury Prevention*. It has extremely low rates of adult smoking (13.7%) and obesity (23.8%). California's infant mortality rate (4.7 per 1,000 live births) is among the lowest in the nation, and the infant mortality disparity ratio is better than average. California has implemented strong child safety seat and seat belt legislation, primary enforcement of distracted driving laws, and requires motorcycle helmet use for all riders. These state policies, in concert with the provision of outstanding trauma care in a large state where 97.7% of the population lives within 60 minutes of a Level I or II trauma center, contribute to a low overall rate of traffic fatalities (5.3 per 100,000 people).

California continues to support a favorable *Medical Liability Environment* and has been rewarded with lower-than-average medical liability insurance premiums, which will help recruit physicians to the state and improve access to emergency care. The state encourages physician apologies by preventing them from being admitted as evidence in a trial. California has enacted a \$250,000 cap on non-economic damages in medical liability cases, which helps to control health care costs by keeping medical liability insurance premiums affordable.

California has also improved in *Disaster Preparedness* since the 2009 Report Card. It is one of only 11 states that has a state budget line item for disaster preparedness funding specific to health care surge. In 2011, it conducted more than nine

emergency drills per hospital involving hospital personnel, equipment, or facilities. California has been accredited by the Emergency Management Accreditation Program.

Challenges. California continues to struggle with provider and facility shortages in *Access to Emergency Care*. Overcrowding and lack of access to needed medical facilities are critical problems for the state. California has the lowest number of emergency departments (ED) per capita (6.7 per 1 million people) and lacks adequate numbers of staffed inpatient beds (223.8 per 100,000 people) and psychiatric care beds (18.3 per 100,000 people). The state also has extremely low rates of orthopedists and hand surgeon specialists (8.5 per 100,000 people) and registered nurses (664.0 per 100,000 people), and has a shortage of physicians accepting Medicare fee-for-service patients. All these factors contribute to high ED wait times, which average 334 minutes (or 5.6 hours) from ED arrival to ED departure for admitted patients.

Financial barriers to care persist in California, impeding access to care. The state has one of the highest rates of adults with no health insurance (22.7%) and a high rate of children with no health insurance (10.8%). It also has moderately high rates of underinsurance for adults (8.2%) and children (18.9%).

While California has regionalized much of its emergency medical services (EMS), there are some key aspects of the *Quality and Patient*

Safety Environment that the state could support, including funding for quality improvement of the EMS system and the development of state field triage protocols. California lacks a statewide trauma registry and a uniform system for providing pre-arrival instructions.

Recommendations. California must work to address a number of issues in *Access to Emergency Care*, including a gap in medical facilities, financial barriers to care, and

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	51	F	42	F
Quality & Patient Safety Environment	44	D-	32	C-
Medical Liability Environment	9	B-	20	C+
Public Health & Injury Prevention	6	B+	10	B+
Disaster Preparedness	40	D+	30	C-
OVERALL	37	D+	23	C-

long wait times in the emergency department. It should invest in ensuring that its citizens can afford doctor visits. Without a concentrated effort to increase the health care workforce and support adequate facilities, the problem of overcrowding will worsen.

Despite its improved *Disaster Preparedness* grade, California should consider developing additional statewide systems and procedures to ensure that all citizens are protected in the event of a disaster. California does not have a statewide patient tracking system or a real-time or near real-time syndromic surveillance system. While this kind of surveillance system has been installed in some counties, the state could work to ensure that all counties have access to this technology.

California could also improve its overall emergency care system by enhancing its *Medical Liability Environment*, including pretrial screening panels or case certification, which would help discourage frivolous lawsuits. Additional liability protection for care mandated by the Emergency Medical Treatment and Labor Act (EMTALA) would help ensure fairness regarding the liability burden placed on emergency care providers and help encourage specialists to be on call for high-risk patients.

Overcrowding and lack of medical specialty facilities are critical problems affecting Californians' access to emergency care.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	10.5	
Emergency physicians per 100,000 pop.	12.9	
Neurosurgeons per 100,000 pop.	1.8	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.5	
Plastic surgeons per 100,000 pop.	3.1	
ENT specialists per 100,000 pop.	3.3	
Registered nurses per 100,000 pop.	664.0	
Additional primary care FTEs needed per 100,000 pop.	1.7	
Additional mental health FTEs needed per 100,000 pop.	0.4	
% of children able to see provider	93.1	
Level I or II trauma centers per 1M pop.	1.2	
% of population within 60 minutes of Level I or II trauma center	97.7	
Accredited chest pain centers per 1M pop.	0.8	
% of population with an unmet need for substance abuse treatment	9.1	
Pediatric specialty centers per 1M pop.	3.2	
Physicians accepting Medicare per 100 beneficiaries	2.9	
Medicaid fee levels for office visits as a % of the national average	123.4	
% change in Medicaid fees for office visits (2007 to 2012)	108.7	
% of adults with no health insurance	22.7	
% of adults underinsured	8.2	
% of children with no health insurance	10.8	
% of children underinsured	18.9	
% of adults with Medicaid	12.9	
Emergency departments per 1M pop.	6.7	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	223.8	
Hospital occupancy rate per 100 staffed beds	69.8	
Psychiatric care beds per 100,000 pop.	18.3	
Median minutes from ED arrival to ED departure for admitted patients	334	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		C+
Lawyers per 10,000 pop.	17.7	
Lawyers per physician	0.6	
Lawyers per emergency physician	13.7	
ATRA judicial hellholes (range 2 to -6)	-2	
Malpractice award payments/ 100,000 pop.	2.1	
Average malpractice award payments	\$143,192	
Databank reports per 1,000 physicians	27.7	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	1.1	
Average medical liability insurance premium for primary care physicians	\$9,834	
Average medical liability insurance premium for specialists	\$39,135	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	\$250,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Partially	

Collateral source rule, provides for awards to be offset	Yes, No offset	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C-
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	14.1	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No protocols	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	No	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	81.9	
% of hospitals with electronic medical records	94.6	
% of patients with AMI given PCI within 90 minutes of arrival	94	
Median time to transfer to another facility for acute coronary intervention	64	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	44.4	
% of hospitals having or planning to develop a diversity strategy/plan	35.3	
PUBLIC HEALTH & INJURY PREVENTION		B+
Traffic fatalities per 100,000 pop.	5.3	
Bicyclist fatalities per 100,000 cyclists	3.0	
Pedestrian fatalities per 100,000 pedestrians	5.9	
% of traffic fatalities alcohol related	32	
Front occupant restraint use (%)	96.6	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	80.4	
% of adults aged 65+ who received flu vaccine in past year	57.2	
% of adults aged 65+ who ever received pneumococcal vaccine	68.1	
Fatal occupational injuries per 1M workers	19.0	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	16.1	
Unintentional fall-related fatal injuries per 100,000 pop.	5.6	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.4	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	9.6	
Total injury prevention funds per 1,000 pop.	\$272.29	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	5	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	4.7	
Binge alcohol drinkers, % of adults	18.6	
Current smokers, % of adults	13.7	
% of adults with BMI >30	23.8	
% of children obese	15.1	
Cardiovascular disease disparity ratio	2.8	
HIV diagnoses disparity ratio	9.6	
Infant mortality disparity ratio	2.4	
DISASTER PREPAREDNESS		C-
Per capita federal disaster preparedness funds	\$6.98	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	9.5	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	County- or city-wide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	358.8	
ICU beds per 1M pop.	236.5	
Burn unit beds per 1M pop.	5.3	
Verified burn centers per 1M pop.	0.2	
Physicians in ESAR-VHP per 1M pop.	43.7	
Nurses in ESAR-VHP per 1M pop.	180.0	
Behavioral health professionals in ESAR-VHP per 1M pop.	8.3	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	NR	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	43.7	

NR = Not reported
N/A = Not applicable

Colorado

Colorado continues to rank first in the nation for its *Medical Liability Environment* and has improved from 13th to 5th for its overall emergency care environment since 2009. However, some serious concerns remain with regard to *Access to Emergency Care*, including high rates of uninsured and underinsured adults and children and the need for greater access to behavioral health care.

Strengths. Colorado continues to lead the nation in its *Medical Liability Environment*, having implemented and maintained legislation that allows health care providers to issue apologies to patients without those statements being admissible as evidence of wrongdoing; maintaining expert witness rules that provide for case certification and require expert witnesses to be of the same specialty as the defendant and licensed to practice medicine in the state; and allowing malpractice awards to be offset by collateral sources. The state has maintained its \$300,000 cap on non-economic damages despite continuous efforts to increase it.

In *Public Health and Injury Prevention*, Colorado has some of the lowest obesity rates for adults and children (20.7 and 10.9%, respectively) and relatively high rates of

influenza and pneumococcal vaccinations among older adults (65.9 and 75.8%, respectively). The state also has low rates of adult cigarette smoking (18.3%), supported by legislation that prohibits smoking in restaurants, bars, and private worksites.

While dropping eight places since 2009, Colorado maintains some noteworthy practices in *Disaster Preparedness*. Its medical response plan specifically addresses patients with special needs, patients dependent on medication for chronic conditions, and mental health patients. Colorado is one of only five states to require training in disaster management and response to biological and chemical terrorism for essential hospital and emergency medical services personnel. Since the previous Report Card, Colorado has become accredited by the Emergency Management Accreditation Program.

Challenges. Colorado continues to face critical issues in *Access to Emergency Care*, especially related to financial barriers to care and behavioral health capacity. Colorado continues to have one of the highest rates of uninsured people, and even those who have health insurance face financial barriers to receiving care: 17.4% of adults and 10.4% of children in Colorado lack health insurance, while an additional 8.4% of adults and 19.7% of children are underinsured.

Access to behavioral health care is a major barrier in Colorado, which has the second highest proportion of adults reporting an unmet need for substance abuse treatment (10.7%) and the lowest rate of psychiatric care beds (5.5 per 100,000 people) in the nation. Adding to this the sixth lowest rate of staffed inpatient beds (226.7 per 100,000 people), the state faces challenges in addressing emergency department boarding and crowding.

While Colorado has improved slightly in the *Quality and Patient Safety Environment*, the state is still lacking in many respects. It does not have a uniform system for providing pre-arrival instructions and scored below average in the percentage of hospitals with electronic medical records (89.7%). Additionally, while Colorado has triage and destination policies in place for trauma patients, it lacks similar policies to enhance the timeliness and quality of care for stroke and ST-elevation myocardial infarction (STEMI) patients.

Recommendations. Financial barriers to care continue to be a major burden on Colorado's people and weaken the state's overall system of emergency care. Colorado must take steps to ensure that all people not only have health insurance but the capability to obtain the care that they need when they need it. The state also should improve access to substance abuse treatment and work with hospitals to increase capacity related to psychiatric care beds and staffed inpatient beds.

Financial barriers to care continue to burden Colorado's people and the overall system of care.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	31	D-	22	D+
Quality & Patient Safety Environment	25	C	11	B-
Medical Liability Environment	1	A	1	A
Public Health & Injury Prevention	15	B-	17	B-
Disaster Preparedness	14	B+	22	C
OVERALL	13	C+	5	C+

To improve Colorado's *Quality and Patient Safety Environment*, efforts should be made to implement triage and destination policies for STEMI and stroke patients; however, the stroke and STEMI system effort is concentrated outside of state government and statewide regulatory functions, which may pose challenges to improving the overall system of emergency care. The state also should work with and encourage hospitals to collect data on race, ethnicity and primary language and to develop a diversity strategy or plan, as these are the first steps in being able to examine and address health inequities.

Despite overall high performance in *Public Health and Injury Prevention*, Colorado must work to reduce racial and ethnic disparities in cardiovascular disease and infant mortality rates in its population. The state should address the high rate of binge drinking reported among adults (20.1%), a proportion that has increased considerably since 2009. Colorado could further improve traffic safety in the state by instituting more rigorous graduated driver's license laws, requiring all motorcycle riders to use helmets, and passing a ban on all cellphone use while driving.

ACCESS TO EMERGENCY CARE		D+
Board-certified emergency physicians per 100,000 pop.	14.6	
Emergency physicians per 100,000 pop.	16.9	
Neurosurgeons per 100,000 pop.	2.1	
Orthopedists and hand surgeon specialists per 100,000 pop.	10.2	
Plastic surgeons per 100,000 pop.	2.1	
ENT specialists per 100,000 pop.	3.5	
Registered nurses per 100,000 pop.	830.9	
Additional primary care FTEs needed per 100,000 pop.	2.5	
Additional mental health FTEs needed per 100,000 pop.	0.5	
% of children able to see provider	95.5	
Level I or II trauma centers per 1M pop.	1.9	
% of population within 60 minutes of Level I or II trauma center	89.9	
Accredited chest pain centers per 1M pop.	2.9	
% of population with an unmet need for substance abuse treatment	10.7	
Pediatric specialty centers per 1M pop.	5.0	
Physicians accepting Medicare per 100 beneficiaries	4.8	
Medicaid fee levels for office visits as a % of the national average	106.2	
% change in Medicaid fees for office visits (2007 to 2012)	8.7	
% of adults with no health insurance	17.4	
% of adults underinsured	8.4	
% of children with no health insurance	10.4	
% of children underinsured	19.7	
% of adults with Medicaid	8.1	
Emergency departments per 1M pop.	13.9	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	226.7	
Hospital occupancy rate per 100 staffed beds	61.0	
Psychiatric care beds per 100,000 pop.	5.5	
Median minutes from ED arrival to ED departure for admitted patients	244	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		A
Lawyers per 10,000 pop.	21.8	
Lawyers per physician	0.8	
Lawyers per emergency physician	12.9	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.8	
Average malpractice award payments	\$246,670	
Databank reports per 1,000 physicians	15.9	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	5.9	
Average medical liability insurance premium for primary care physicians	\$12,275	
Average medical liability insurance premium for specialists	\$53,023	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Required	
Medical liability cap on non-economic damages	\$250,001 -350,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	Yes	
QUALITY & PATIENT SAFETY ENVIRONMENT		B-
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	11.6	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2006)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	80.5	
% of hospitals with electronic medical records	89.7	
% of patients with AMI given PCI within 90 minutes of arrival	93	
Median time to transfer to another facility for acute coronary intervention	52	
% of patients with AMI who received aspirin within 24 hours	100	
% of hospitals collecting data on race/ethnicity and primary language	54.5	
% of hospitals having or planning to develop a diversity strategy/plan	42.1	
PUBLIC HEALTH & INJURY PREVENTION		B-
Traffic fatalities per 100,000 pop.	7.9	
Bicyclist fatalities per 100,000 cyclists	1.7	
Pedestrian fatalities per 100,000 pedestrians	3.3	
% of traffic fatalities alcohol related	39	
Front occupant restraint use (%)	82.1	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	4	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	75.8	
% of adults aged 65+ who received flu vaccine in past year	65.9	
% of adults aged 65+ who ever received pneumococcal vaccine	75.8	
Fatal occupational injuries per 1M workers	32.0	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	21.3	
Unintentional fall-related fatal injuries per 100,000 pop.	12.9	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.6	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	11.0	
Total injury prevention funds per 1,000 pop.	\$687.33	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	2	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	5.9	
Binge alcohol drinkers, % of adults	20.1	
Current smokers, % of adults	18.3	
% of adults with BMI >30	20.7	
% of children obese	10.9	
Cardiovascular disease disparity ratio	2.8	
HIV diagnoses disparity ratio	5.9	
Infant mortality disparity ratio	2.9	
DISASTER PREPAREDNESS		C
Per capita federal disaster preparedness funds	\$5.19	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	2.0	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	County- or city-wide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	NR	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	1089.3	
ICU beds per 1M pop.	298.6	
Burn unit beds per 1M pop.	6.2	
Verified burn centers per 1M pop.	0.2	
Physicians in ESAR-VHP per 1M pop.	6.6	
Nurses in ESAR-VHP per 1M pop.	78.5	
Behavioral health professionals in ESAR-VHP per 1M pop.	43.0	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	Yes	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	35.2	

NR = Not reported
N/A = Not applicable

Connecticut

With a strong commitment to *Public Health and Injury Prevention* and many provisions to ensure adequate access to emergency care, Connecticut has a robust emergency care system. However, a difficult *Medical Liability Environment* and gaps in *Disaster Preparedness* resources need to be addressed.

Strengths. Connecticut remains one of the top 10 states for *Public Health and Injury Prevention*. The state has some of the lowest fatal injury rates in the nation, with favorable rankings in its rates of fire- or burn-related deaths, accidental firearm-related deaths, accidental poisoning deaths, and fatal occupational injuries. Its rate of homicide and suicide is the fourth lowest (12.8 per 100,000 people). Connecticut's adult population is in relatively good health as well, with some of the lowest rates of adult smoking (17.1%) and obesity (24.5%).

Connecticut has solid rankings for its *Quality and Patient Safety Environment*, with high percentages of hospitals using computerized practitioner order entry (93.9%) and electronic medical records (97.0%). The state also has implemented a prescription drug-monitoring program that monitors drug schedules II through V and has a funded state emergency medical services medical director.

Connecticut's *Access to Emergency Care* is robust, with favorable ratios of providers to population for many of the medical specialties included in this report. The state has particularly good access to emergency care services, with one of the highest rates of Level I or II trauma centers (3.6 per 1 million people) and high per capita numbers of emergency physicians. It also has 3.5 physicians accepting Medicare per 100 beneficiaries, which is higher than the national average. Connecticut's citizens have a high overall level of health insurance coverage, with only 5.3% of children and 9.6% of adults lacking insurance. This is tempered, however, by the relatively high proportion of children who are underinsured (19.0%).

Challenges. Connecticut's *Medical Liability Environment* continues to be a challenge. The state has the third highest

average medical liability insurance premiums for both primary care physicians (\$24,211) and specialists (\$110,269). The average premium for primary care physicians is more than \$10,000 higher than the national average, while specialists in the state pay nearly twice the national average. Connecticut has few protections from lawsuits in place for practitioners, a relatively high number of malpractice award payments (2.4 per 100,000 people), and the seventh highest average malpractice award payment (\$482,371).

Connecticut's lackluster grade in *Disaster Preparedness* is largely due to its failure to keep pace with other states' improvements. The state fell below the national average in its bed surge capacity (509.7 per 1 million people), burn unit beds (2.8 per 1 million), and intensive care unit beds (249.6 per 1 million). While Connecticut has the highest rate of physicians registered in its Emergency System for Advance Registration of Volunteer Health Professionals (656.8 per 1 million people), it lags behind other states in nurses and behavioral health professionals registered. It also lacks some of the policies and procedures that could enhance its ability to respond quickly to a large-scale disaster, including the lack of integration into its medical response plan of the needs of patients dependent on medication for chronic conditions, psychotropic medication, or dialysis, as well as the lack of a statewide patient-tracking system.

Recommendations. Connecticut must work to improve its *Medical Liability Environment* and be steadfast in supporting liability protections that have been put in place, such as case certification requirements. A medical liability cap on non-economic damages is also highly recommended, and mandatory pretrial screening panels could help discourage frivolous lawsuits. Additional liability protections are needed to help retain providers, discour-

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	15	C+	18	C-
Quality & Patient Safety Environment	20	B-	18	C+
Medical Liability Environment	35	D	32	D
Public Health & Injury Prevention	3	A	8	B+
Disaster Preparedness	29	C	29	C-
OVERALL	14	C+	15	C

age unnecessary lawsuits, and tamp down soaring medical liability insurance premiums and the correspondingly high average malpractice award payments.

Despite its strong health care workforce, Connecticut must improve access to quality emergency care by reducing factors that contribute to emergency department (ED) boarding and crowding. The state has one of the highest hospital occupancy rates in the nation (76.6 per 100 staffed beds) and relatively low rates of staffed inpatient beds (259.8 per 100,000 people) and psychiatric care beds (21.3

per 100,000 people). It also has few EDs (8.1 per 1 million people) and the sixth longest ED wait time in the nation: 351 minutes from ED arrival to departure for admitted patients. These issues point to a need for the state to invest in more hospital infrastructure to ensure that it can keep up with demand for services. Improving the medical infrastructure also will enable Connecticut to better respond to disasters where a surge in demand for beds and care is anticipated.

Connecticut must improve access to quality emergency care by reducing factors that contribute to emergency department boarding and crowding.

ACCESS TO EMERGENCY CARE		C-
Board-certified emergency physicians per 100,000 pop.	12.1	
Emergency physicians per 100,000 pop.	15.8	
Neurosurgeons per 100,000 pop.	2.5	
Orthopedists and hand surgeon specialists per 100,000 pop.	11.1	
Plastic surgeons per 100,000 pop.	2.7	
ENT specialists per 100,000 pop.	4.3	
Registered nurses per 100,000 pop.	1012.6	
Additional primary care FTEs needed per 100,000 pop.	3.0	
Additional mental health FTEs needed per 100,000 pop.	1.2	
% of children able to see provider	95.6	
Level I or II trauma centers per 1M pop.	3.6	
% of population within 60 minutes of Level I or II trauma center	100.0	
Accredited chest pain centers per 1M pop.	0.8	
% of population with an unmet need for substance abuse treatment	9.0	
Pediatric specialty centers per 1M pop.	3.9	
Physicians accepting Medicare per 100 beneficiaries	3.5	
Medicaid fee levels for office visits as a % of the national average	77.8	
% change in Medicaid fees for office visits (2007 to 2012)	-20.5	
% of adults with no health insurance	9.6	
% of adults underinsured	7.3	
% of children with no health insurance	5.3	
% of children underinsured	19.0	
% of adults with Medicaid	9.9	
Emergency departments per 1M pop.	8.1	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	259.8	
Hospital occupancy rate per 100 staffed beds	76.6	
Psychiatric care beds per 100,000 pop.	21.3	
Median minutes from ED arrival to ED departure for admitted patients	351	
State collects data on diversion	N/A	
MEDICAL LIABILITY ENVIRONMENT		D
Lawyers per 10,000 pop.	20.7	
Lawyers per physician	0.5	
Lawyers per emergency physician	13.1	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	2.4	
Average malpractice award payments	\$482,371	
Databank reports per 1,000 physicians	17.8	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	5.8	
Average medical liability insurance premium for primary care physicians	\$24,211	
Average medical liability insurance premium for specialists	\$110,269	
Presence of pretrial screening panels	Voluntary	
Pretrial screening panel's findings admissible as evidence	No	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Partially	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C+
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	24.2	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	93.9	
% of hospitals with electronic medical records	97.0	
% of patients with AMI given PCI within 90 minutes of arrival	94	
Median time to transfer to another facility for acute coronary intervention	73	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	54.3	
% of hospitals having or planning to develop a diversity strategy/plan	54.3	
PUBLIC HEALTH & INJURY PREVENTION		B+
Traffic fatalities per 100,000 pop.	7.4	
Bicyclist fatalities per 100,000 cyclists	4.3	
Pedestrian fatalities per 100,000 pedestrians	3.4	
% of traffic fatalities alcohol related	45	
Front occupant restraint use (%)	88.4	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	6	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	2	
% of children immunized, aged 19-35 months	81.2	
% of adults aged 65+ who received flu vaccine in past year	60.2	
% of adults aged 65+ who ever received pneumococcal vaccine	71.0	
Fatal occupational injuries per 1M workers	22.5	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	12.8	
Unintentional fall-related fatal injuries per 100,000 pop.	9.2	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.7	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	9.1	
Total injury prevention funds per 1,000 pop.	NR	
Dedicated child injury prevention funding	NR	
Dedicated elderly injury prevention funding	NR	
Dedicated occupational injury prevention funding	NR	
Gun-purchasing legislation (range 0-6)	5.5	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	5.3	
Binge alcohol drinkers, % of adults	17.9	
Current smokers, % of adults	17.1	
% of adults with BMI >30	24.5	
% of children obese	15.0	
Cardiovascular disease disparity ratio	1.4	
HIV diagnoses disparity ratio	10.7	
Infant mortality disparity ratio	2.8	
DISASTER PREPAREDNESS		C-
Per capita federal disaster preparedness funds	\$5.50	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	1.8	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	509.7	
ICU beds per 1M pop.	249.6	
Burn unit beds per 1M pop.	2.8	
Verified burn centers per 1M pop.	0.3	
Physicians in ESAR-VHP per 1M pop.	656.8	
Nurses in ESAR-VHP per 1M pop.	167.7	
Behavioral health professionals in ESAR-VHP per 1M pop.	15.6	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	32.8	

NR = Not reported
N/A = Not applicable

Delaware

Delaware dropped ten places overall due to worsening grades in *Disaster Preparedness* and *Public Health and Injury Prevention*. At the same time, however, Delaware continues to support a strong emergency medical system and has slightly improved its *Medical Liability Environment*.

Strengths. Delaware continues to support one of the nation's strongest *Quality and Patient Safety Environments* stemming largely from the state's careful development of uniform guidelines and policies for providing emergency services. Delaware has a uniform system for pre-arrival instructions, maintains a statewide trauma registry, and has triage and destination policies in place for trauma patients, ST-elevation myocardial infarction patients (STEMI), and stroke patients.

Delaware also fares well in *Access to Emergency Care*, with some of the highest rates of emergency physicians (17.8 per 100,000 people) and registered nurses (1,157.3 per 100,000) in the nation. Delaware lacks access to some classes of specialty care providers, with very poor rates of access to neurosurgeons (1.0 per 100,000 people) and ear, nose, and throat specialists (2.2 per 100,000 people), but other measures are more favorable. The state ranks fourth in the country for a child's ability to see a provider when needed (97.4%) and has a relatively low percentage of people with an unmet need for substance abuse treatment (7.8%).

Challenges. Indicator changes in the *Disaster Preparedness* category may have played some role in Delaware's grade falling precipitously since 2009, but the state ranks poorly compared to other states. Delaware has not developed mutual aid agreements with behavioral health providers to provide care during a disaster or incorporated mental health patients or patients on psychotropic medication into its medical response plan. It lacks the infrastructure to absorb a potential influx of emergency patients, with no burn unit beds and no veri-

fied burn centers, few intensive care unit beds (256.2 beds per 1 million people), and a low bed surge capacity (378.4 per 1 million). However, a state preparedness program is coordinating with hospitals in an effort to expand surge capacity and to provide burn and other specialized care. Additional funding and training is also being provided to help address the need for resources to treat burn patients.

Delaware saw a sharp drop in *Public Health and Injury Prevention* overall, with high rates of traffic fatalities and decreasing immunization rates. Delaware has some of the highest rates of bicyclist fatalities (12.6 per 100,000 cyclists) and pedestrian fatalities (8.2 per 100,000 pedestrians) in the nation, and 44% of traffic fatalities are alcohol related. One in five adults in Delaware also reported binge drinking (20.3%). While state injury prevention initiatives have been assumed by an active coalition through the Office of EMS and injury prevention funds have increased (from \$23.13 to \$66.82 per 1,000 people), this funding level is still 10 times lower than the average across the states.

Delaware's health professionals continue to face a challenging *Medical Liability Environment*. While the state has seen a decline in the number of malpractice award payments, it has one of the highest average malpractice awards

in the nation at \$507,388. The state has correspondingly high average medical liability insurance premiums for primary care physicians and specialists; these are well above the national average and have increased since 2009.

Recommendations. Delaware must continue to support *Access to Emergency Care*, specifically psychiatric care. The state ranks poorly in its availability of psychiatric care beds (23.2 per 100,000), which is a 50% decrease in capacity since 2009. Emergency psychiatric care is particularly important, and Delaware must continue to explore and expand such options as telepsychiatry and the state's Crisis and

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	8	B-	7	C+
Quality & Patient Safety Environment	9	A-	7	B+
Medical Liability Environment	45	F	34	D
Public Health & Injury Prevention	26	C-	36	D-
Disaster Preparedness	11	A-	38	F
OVERALL	10	C+	20	C-

Psychiatric Emergency Services program to address this critical need. Delaware also has one of the worst hospital occupancy rates in the nation and the second lowest rate of emergency departments (ED) per capita. These factors all contribute to the state having the second longest ED wait times (387 minutes from ED arrival to departure), which is an indicator of an overloaded system that often results in boarding and crowding in the ED.

Delaware should create a more favorable *Medical Liability Environment* by strengthening existing policies to require periodic payments and pretrial screening panels, as well as implementing a medical liability cap on non-economic damages and additional liability protections for Emergency Medical Treatment and Labor Act (EMTALA)-mandated care.

Delaware must continue to support its already strong *Quality and Patient Safety Environment* by funding quality improvement of the EMS system and continuing to be at the forefront of statewide innovations and policies that aim to improve the overall emergency care system. Finally, the state should consider increasing funding for *Public Health and Injury Prevention* efforts aimed at improving health risk behaviors, traffic safety, and childhood immunization rates.

ACCESS TO EMERGENCY CARE		C+
Board-certified emergency physicians per 100,000 pop.	9.9	
Emergency physicians per 100,000 pop.	17.8	
Neurosurgeons per 100,000 pop.	1.0	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.2	
Plastic surgeons per 100,000 pop.	2.4	
ENT specialists per 100,000 pop.	2.2	
Registered nurses per 100,000 pop.	1157.3	
Additional primary care FTEs needed per 100,000 pop.	0.7	
Additional mental health FTEs needed per 100,000 pop.	0.5	
% of children able to see provider	97.4	
Level I or II trauma centers per 1M pop.	1.1	
% of population within 60 minutes of Level I or II trauma center	100.0	
Accredited chest pain centers per 1M pop.	0.0	
% of population with an unmet need for substance abuse treatment	7.8	
Pediatric specialty centers per 1M pop.	3.3	
Physicians accepting Medicare per 100 beneficiaries	3.0	
Medicaid fee levels for office visits as a % of the national average	143.5	
% change in Medicaid fees for office visits (2007 to 2012)	14.5	
% of adults with no health insurance	11.1	
% of adults underinsured	7.9	
% of children with no health insurance	6.4	
% of children underinsured	18.3	
% of adults with Medicaid	10.9	
Emergency departments per 1M pop.	7.6	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	289.6	
Hospital occupancy rate per 100 staffed beds	74.4	
Psychiatric care beds per 100,000 pop.	23.2	
Median minutes from ED arrival to ED departure for admitted patients	387	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		D
Lawyers per 10,000 pop.	31.1	
Lawyers per physician	1.1	
Lawyers per emergency physician	17.5	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.1	
Average malpractice award payments	\$507,388	
Databank reports per 1,000 physicians	23.0	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	26.6	
Average medical liability insurance premium for primary care physicians	\$15,760	
Average medical liability insurance premium for specialists	\$62,902	
Presence of pretrial screening panels	Voluntary	
Pretrial screening panel's findings admissible as evidence	Yes	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	Yes, No offset	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		B+
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	39.3	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	100.0	
% of hospitals with electronic medical records	100.0	
% of patients with AMI given PCI within 90 minutes of arrival	94	
Median time to transfer to another facility for acute coronary intervention	67	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	58.3	
% of hospitals having or planning to develop a diversity strategy/plan	41.7	
PUBLIC HEALTH & INJURY PREVENTION		D-
Traffic fatalities per 100,000 pop.	8.3	
Bicyclist fatalities per 100,000 cyclists	12.6	
Pedestrian fatalities per 100,000 pedestrians	8.2	
% of traffic fatalities alcohol related	44	
Front occupant restraint use (%)	90.3	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	72.1	
% of adults aged 65+ who received flu vaccine in past year	63.4	
% of adults aged 65+ who ever received pneumococcal vaccine	69.2	
Fatal occupational injuries per 1M workers	20.3	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	18.4	
Unintentional fall-related fatal injuries per 100,000 pop.	5.6	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.7	

Unintentional firearm-related fatal injuries per 100,000 pop.	NR	
Unintentional poisoning-related fatal injuries per 100,000 pop.	13.9	
Total injury prevention funds per 1,000 pop.	\$66.82	
Dedicated child injury prevention funding	No	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	2	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	7.7	
Binge alcohol drinkers, % of adults	20.3	
Current smokers, % of adults	21.8	
% of adults with BMI >30	28.8	
% of children obese	16.9	
Cardiovascular disease disparity ratio	3.8	
HIV diagnoses disparity ratio	7.6	
Infant mortality disparity ratio	2.8	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$12.83	
State budget line item for health care surge	NR	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	NR	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.6	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	None	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	NR	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	378.4	
ICU beds per 1M pop.	256.2	
Burn unit beds per 1M pop.	0.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	38.2	
Nurses in ESAR-VHP per 1M pop.	214.8	
Behavioral health professionals in ESAR-VHP per 1M pop.	22.9	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	NR	
Liability protections for health care workers during a disaster (range 0-4)	NR	
% of RNs received disaster training	43.7	

NR = Not reported
N/A = Not applicable

District of Columbia

The District of Columbia remains at the top of the pack, with one of the strongest emergency care environments in the nation, stellar overall *Access to Emergency Care*, and a strong commitment to *Disaster Preparedness*. While the District has improved the *Quality and Patient Safety Environment*, it continues to struggle with the worst *Medical Liability Environment* in the nation and excessive emergency department (ED) wait times.

Strengths. The District has the top-ranked environment for *Access to Emergency Care* and is first in the nation for rates of many specialists, such as neurosurgeons; emergency physicians; and ear, nose, and throat specialists. The District has high rates of health insurance among adults and children, with only 4.3% of children and 9.3% of adults lacking health insurance. It also has the second highest per capita rate of physicians accepting Medicare (5.3 per 100 beneficiaries), as well as high Medicaid reimbursement rates for office visits, which realized the largest increase in the nation from 2007 to 2012 (121.7%).

Thanks in part to the availability of medical facilities, an ample health care workforce, and the presence of the federal government, the District continues to boast the best *Disaster Preparedness* capacity in the nation. Washingtonians have access to the highest rates of burn unit beds, intensive care unit beds, and verified burn centers. The District also has many important plans and systems in place to address the needs of medically fragile populations during an emergency.

The District made significant gains in its *Quality and Patient Safety Environment* since the 2009 Report Card by funding both quality improvements in the emergency medical services (EMS) system and an EMS medical director. There are also significantly more emergency medicine

residents in the District compared with 2009: 107.5 residents per 1 million people, for which it ranks first in the nation.

Challenges. The District of Columbia struggles with an adverse *Medical Liability Environment* that is the worst in the country. The District's courts award more malpractice awards than almost any state (4.8 per 100,000 people), and those payments are among the 10 highest (\$416,388). Practitioners in the District face sky-high average medical liability insurance premiums for both primary care physicians (\$24,010) and specialists (\$110,307). The District has enacted few laws that protect practitioners from frivolous lawsuits, and it allows only periodic payments of malpractice awards at the court's discretion.

Access to Emergency Care in the District is a dichotomy. While enjoying few financial barriers to care and an ample supply of specialists, it has some of the highest hospital occupancy rates and longest ED wait times in the nation. At an average of 452 minutes from ED arrival to ED departure, patients can expect to wait nearly 3 hours longer than the national average to be admitted into a hospital. The District also ranks second to last in the nation for its critical need for primary care providers and last for the proportion of the population with an unmet need for substance abuse treatment.

These basic access issues are particularly worrisome when considering the District's challenges in *Public Health and Injury Prevention*. The District has the highest homicide and suicide rate in the country, at 29.9 per 100,000 people, compared with the national average of 18.8 per 100,000. The District also has the highest proportion of adults engaging in binge drinking (25.0%) and the highest rate of traffic fatalities that are alcohol-related (50.0%).

Recommendations. The District must act to improve its highly unfavorable *Medi-*

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	1	A	1	A
Quality & Patient Safety Environment	28	C	9	B
Medical Liability Environment	51	F	51	F
Public Health & Injury Prevention	25	C-	24	D+
Disaster Preparedness	1	A	1	A
OVERALL	2	B-	1	B-

cal Liability Environment and rein in high malpractice awards and insurance premiums. A medical liability cap on noneconomic damages, abolishing joint and several liability, and requiring awards to be offset by collateral sources would help lower the costs of malpractice lawsuits. Pretrial screening panels or case certification provisions would help cull frivolous lawsuits before they begin. Finally, additional liability protections for Emergency Medical Treatment and Labor Act-mandated emergency care would go a long way toward protecting emergency care providers as they serve high-risk patients with little or no knowledge of the patient's medical history.

Significant attention should be given to reducing the excessively long ED wait times facing Washingtonians. To address part of the problem, the District should intensify efforts to increase access to primary care.

There is also evidence of severe racial and ethnic health disparities in the District: The infant mortality rate for Black infants (16.5 deaths per 1,000 live births) is 3.8 times the rate for White infants. Similar disparities exist for cardiovascular disease. The District must ensure that all receive the preventive care, education, and treatment that they need, and it must work to increase the number of primary care providers able to meet those needs.

The District must reduce the excessively long emergency department wait times, and address racial and ethnic health disparities affecting its people.

ACCESS TO EMERGENCY CARE		A
Board-certified emergency physicians per 100,000 pop.	18.2	
Emergency physicians per 100,000 pop.	35.4	
Neurosurgeons per 100,000 pop.	7.6	
Orthopedists and hand surgeon specialists per 100,000 pop.	17.9	
Plastic surgeons per 100,000 pop.	7.4	
ENT specialists per 100,000 pop.	10.1	
Registered nurses per 100,000 pop.	1725.3	
Additional primary care FTEs needed per 100,000 pop.	6.7	
Additional mental health FTEs needed per 100,000 pop.	0.5	
% of children able to see provider	94.8	
Level I or II trauma centers per 1M pop.	4.7	
% of population within 60 minutes of Level I or II trauma center	100.0	
Accredited chest pain centers per 1M pop.	0.0	
% of population with an unmet need for substance abuse treatment	11.9	
Pediatric specialty centers per 1M pop.	7.9	
Physicians accepting Medicare per 100 beneficiaries	5.3	
Medicaid fee levels for office visits as a % of the national average	129.7	
% change in Medicaid fees for office visits (2007 to 2012)	121.7	
% of adults with no health insurance	9.3	
% of adults underinsured	7.4	
% of children with no health insurance	4.3	
% of children underinsured	11.8	
% of adults with Medicaid	20.3	
Emergency departments per 1M pop.	12.7	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	703.8	
Hospital occupancy rate per 100 staffed beds	72.2	
Psychiatric care beds per 100,000 pop.	46.2	
Median minutes from ED arrival to ED departure for admitted patients	452	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		F
Lawyers per 10,000 pop.	458.8	
Lawyers per physician	5.7	
Lawyers per emergency physician	129.5	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	4.8	
Average malpractice award payments	\$416,388	
Databank reports per 1,000 physicians	13.5	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	11.3	
Average medical liability insurance premium for primary care physicians	\$24,010	
Average medical liability insurance premium for specialists	\$110,307	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		B
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	107.5	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	No	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	1	
% of hospitals with computerized practitioner order entry	70.0	
% of hospitals with electronic medical records	80.0	
% of patients with AMI given PCI within 90 minutes of arrival	79	
Median time to transfer to another facility for acute coronary intervention	77	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	60.0	
% of hospitals having or planning to develop a diversity strategy/plan	46.7	
PUBLIC HEALTH & INJURY PREVENTION		D+
Traffic fatalities per 100,000 pop.	1.5	
Bicyclist fatalities per 100,000 cyclists	0.5	
Pedestrian fatalities per 100,000 pedestrians	2.0	
% of traffic fatalities alcohol related	50	
Front occupant restraint use (%)	95.2	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	9	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	81.4	
% of adults aged 65+ who received flu vaccine in past year	56.7	
% of adults aged 65+ who ever received pneumococcal vaccine	63.3	
Fatal occupational injuries per 1M workers	36.4	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	29.9	
Unintentional fall-related fatal injuries per 100,000 pop.	9.6	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.8	

Unintentional firearm-related fatal injuries per 100,000 pop.	NR	
Unintentional poisoning-related fatal injuries per 100,000 pop.	12.0	
Total injury prevention funds per 1,000 pop.	NR	
Dedicated child injury prevention funding	NR	
Dedicated elderly injury prevention funding	NR	
Dedicated occupational injury prevention funding	NR	
Gun-purchasing legislation (range 0-6)	4	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	7.9	
Binge alcohol drinkers, % of adults	25.0	
Current smokers, % of adults	20.8	
% of adults with BMI >30	23.8	
% of children obese	21.4	
Cardiovascular disease disparity ratio	2.7	
HIV diagnoses disparity ratio	NR	
Infant mortality disparity ratio	3.8	
DISASTER PREPAREDNESS		A
Per capita federal disaster preparedness funds	\$107.37	
State budget line item for health care surge	NR	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.7	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	632.6	
ICU beds per 1M pop.	687.9	
Burn unit beds per 1M pop.	31.6	
Verified burn centers per 1M pop.	1.6	
Physicians in ESAR-VHP per 1M pop.	338.4	
Nurses in ESAR-VHP per 1M pop.	1069.1	
Behavioral health professionals in ESAR-VHP per 1M pop.	20.6	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	47.2	

NR = Not reported
N/A = Not applicable

Florida

Florida has implemented strong practices and policies to ensure quality care, patient safety, and disaster preparedness. However, the state is plagued by a health care workforce shortage, financial barriers to care, and limited hospital capacity, as well as a *Medical Liability Environment* that makes it exceedingly difficult to fill these gaps.

Strengths. Florida's *Quality and Patient Safety Environment* has many strengths, including dedicated funding for both quality improvement within the emergency medical services (EMS) system and a funded state EMS medical director. The state has instituted triage and destination policies for both stroke and ST-elevation myocardial infarction patients, and it maintains a statewide trauma registry. However, emergency physicians in the state warn of a risk that Florida's trauma system could become fragmented.

Florida has implemented some important *Disaster Preparedness* policies and procedures to ensure that the state is able to respond quickly to a disaster or mass casualty event. For licensure, all Florida long-term care facilities and nursing homes are required to have annual internal facility disaster drills and exercises in addition to the higher level drills and trainings conducted with state agencies. Florida has greatly improved its registration of health professionals in the Emergency System for Advance Registration of Volunteer Health Professionals, with high per capita rates of physicians, nurses, and behavioral health professionals registered. Continuing to show its dedication to improving its *Disaster Preparedness*, Florida is nearing implementation of a statewide high-tech solution for electronic patient tracking to improve on its current low-tech patient-tracking system.

Challenges. Florida faces a triple challenge in *Access to Emergency Care*: physician shortages, insufficient hospital capacity, and a lack of adequate health insurance coverage. Florida is experiencing a severe physician workforce shortage, with spe-

cialty coverage for emergency departments (ED) posing a particular challenge. Florida has an inadequate supply of neurosurgeons; emergency physicians; orthopedists and hand surgeons; ear, nose, and throat specialists; and registered nurses. Florida ranks last in the nation for children who are able to see a provider (91.7%). With full implementation of the Patient Protection and Affordable Care Act and the current lack of Medicaid expansion, access to primary care physicians may be further limited in the near future. Florida already has one of the greatest needs for additional primary care providers in the nation (4.5 providers per 100,000 people) and one of the lowest Medicaid fee levels for office visits, at 57.6% of the national average.

Florida has few psychiatric care beds (13.3 per 100,000 people) and EDs (8.1 per 1 million people), which likely contribute to long ED wait times (315 minutes from ED arrival to ED departure). Financial barriers to care also persist in Florida, which has high rates of uninsured adults and children (21.6 and 13.0%, respectively). Additionally, Florida has reportedly experienced severe medication shortages in pre-hospital and emergency care settings.

Despite having some key medical liability reforms in place, Florida has failed to make significant progress with its *Medical Liability Environment* since the 2009 Report Card. While medical liability insurance premiums for primary care physicians and specialists decreased slightly, they are still the highest in the nation. Concurrently, the state has very few insurers writing medical liability policies (2.4 per 1,000 physicians) and still lacks pretrial screening panels.

Florida's challenges in accessing needed care are particularly worrisome when coupled with its subpar performance in *Public Health and Injury Prevention*. The state has the highest rate of pedestrian fatalities (17.0 per 100,000 pedestrians), which is more than three times the average across the states, while the rate of bicyclist fatali-

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	50	F	49	F
Quality & Patient Safety Environment	10	A-	17	C+
Medical Liability Environment	27	C-	28	C
Public Health & Injury Prevention	37	D-	30	D+
Disaster Preparedness	10	A-	16	C+
OVERALL	30	C-	27	C-

ties is more than twice the national average. These rates point to a need for concentrated public education on safe driving and focused enforcement of these laws. The state is moving forward in this area, having passed legislation in 2013 that bans texting for all drivers.

Recommendations. Many critical gaps in *Access to Emergency Care* threaten to overburden the emergency care system in Florida. The state needs to recruit, train, and retain all types of health professionals, including emergency physicians and specialists willing to be on call in the ED. At the same time, the state must increase Medicaid reimbursement levels that have steadily declined for the past decade, support increased hospital capacity to reduce the likelihood of ED boarding and crowding, and improve health insurance coverage for adults and children.

Improving the *Medical Liability Environment* further may help Florida in attracting and retaining health care providers. The state must make an effort to encourage additional insurers to write medical liability policies in the state and reduce the highest-in-the-nation insurance premiums. Implementing pretrial screening panels and requiring that expert witnesses be licensed to practice medicine in the state also may discourage frivolous lawsuits.

Many critical gaps in Access to Emergency Care threaten to overburden the emergency care system.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	9.0	
Emergency physicians per 100,000 pop.	12.0	
Neurosurgeons per 100,000 pop.	2.1	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.7	
Plastic surgeons per 100,000 pop.	3.3	
ENT specialists per 100,000 pop.	3.2	
Registered nurses per 100,000 pop.	863.6	
Additional primary care FTEs needed per 100,000 pop.	4.5	
Additional mental health FTEs needed per 100,000 pop.	0.4	
% of children able to see provider	91.7	
Level I or II trauma centers per 1M pop.	0.8	
% of population within 60 minutes of Level I or II trauma center	98.2	
Accredited chest pain centers per 1M pop.	4.0	
% of population with an unmet need for substance abuse treatment	8.4	
Pediatric specialty centers per 1M pop.	2.4	
Physicians accepting Medicare per 100 beneficiaries	2.4	
Medicaid fee levels for office visits as a % of the national average	57.6	
% change in Medicaid fees for office visits (2007 to 2012)	-3.8	
% of adults with no health insurance	21.6	
% of adults underinsured	9.9	
% of children with no health insurance	13.0	
% of children underinsured	19.2	
% of adults with Medicaid	8.5	
Emergency departments per 1M pop.	8.1	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	299.5	
Hospital occupancy rate per 100 staffed beds	64.8	
Psychiatric care beds per 100,000 pop.	13.3	
Median minutes from ED arrival to ED departure for admitted patients	315	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		C
Lawyers per 10,000 pop.	22.0	
Lawyers per physician	0.8	
Lawyers per emergency physician	18.3	
ATRA judicial hellholes (range 2 to -6)	-2	
Malpractice award payments/ 100,000 pop.	3.6	
Average malpractice award payments	\$212,364	
Databank reports per 1,000 physicians	29.0	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	2.4	
Average medical liability insurance premium for primary care physicians	\$31,133	
Average medical liability insurance premium for specialists	\$128,555	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	Yes	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C+
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	9.9	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	76.3	
% of hospitals with electronic medical records	95.3	
% of patients with AMI given PCI within 90 minutes of arrival	96	
Median time to transfer to another facility for acute coronary intervention	58	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	37.9	
% of hospitals having or planning to develop a diversity strategy/plan	34.4	
PUBLIC HEALTH & INJURY PREVENTION		D+
Traffic fatalities per 100,000 pop.	9.8	
Bicyclist fatalities per 100,000 cyclists	10.8	
Pedestrian fatalities per 100,000 pedestrians	17.0	
% of traffic fatalities alcohol related	36	
Front occupant restraint use (%)	88.1	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	3	
Distracted driving legislation (range 0-4)	1	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	77.8	
% of adults aged 65+ who received flu vaccine in past year	57.6	
% of adults aged 65+ who ever received pneumococcal vaccine	69.8	
Fatal occupational injuries per 1M workers	25.5	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	21.3	
Unintentional fall-related fatal injuries per 100,000 pop.	11.5	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.7	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	14.3	
Total injury prevention funds per 1,000 pop.	\$29.83	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	2	
Anti-smoking legislation (range 0-3)	2	
Infant mortality rate per 1,000 live births	6.5	
Binge alcohol drinkers, % of adults	17.1	
Current smokers, % of adults	19.3	
% of adults with BMI >30	26.6	
% of children obese	13.4	
Cardiovascular disease disparity ratio	1.7	
HIV diagnoses disparity ratio	14.8	
Infant mortality disparity ratio	2.4	
DISASTER PREPAREDNESS		C+
Per capita federal disaster preparedness funds	\$4.27	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.6	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	494.4	
ICU beds per 1M pop.	274.2	
Burn unit beds per 1M pop.	4.0	
Verified burn centers per 1M pop.	0.2	
Physicians in ESAR-VHP per 1M pop.	50.0	
Nurses in ESAR-VHP per 1M pop.	286.3	
Behavioral health professionals in ESAR-VHP per 1M pop.	27.1	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	38.7	

NR = Not reported
N/A = Not applicable

Georgia

Georgia's strong *Medical Liability Environment* continues to be its biggest asset, although the state has made considerable progress in improving its *Quality and Patient Safety Environment*. Georgia continues, however, to suffer from health care workforce shortages and financial barriers to care, putting *Access to Emergency Care* in this state among the worst in the nation.

Strengths. Georgia continues to support a strong *Medical Liability Environment* with protections for health care providers. It prohibits apologies by providers from being used as evidence of wrongdoing and has enacted additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act (EMTALA), which protects providers caring for very high-risk patients with little or no knowledge of their medical history. The state has numerous expert witness rules and is one of three states that require expert witnesses to be licensed to practice medicine in the state. Despite the positive overall environment, however, Georgia's medical liability cap on non-economic damages was ruled unconstitutional in 2010, and other challenges persist.

Georgia has demonstrated a strong commitment to improving the *Quality and Patient Safety Environment* by incorporating Centers for Disease Control and Prevention guidelines into its state field triage protocols. Georgia continues to fund a state emergency medical services (EMS) medical director and has destination policies in place that allow EMS to bypass local hospitals to take stroke, ST-elevation myocardial infarction, and trauma patients to a hospital specialty center.

While some work is still needed, Georgia has made improvements in *Disaster Preparedness*. The state's medical response plan now includes patients with special needs, mental health patients, and patients dependent on medications or dialysis. Georgia has also implemented a paper-based

statewide patient tracking system and is in the process of implementing an electronic patient-tracking system for everyday use as well as disaster use. It has one of the top 10 bed surge capacities in the nation (1,507.0 beds per 1 million people). The state also has a high number of burn unit beds (9.4 beds per 1 million), although there is a noted shortage of intensive care unit beds (204.2 per 1 million).

Challenges. Georgia's biggest challenge is ensuring that all people have adequate *Access to Emergency Care*. The state has low per capita rates of specialists, including emergency physicians; neurosurgeons; orthopedists and hand surgeons; plastic surgeons; ear, nose, and throat specialists; and registered nurses. Access to mental health care is a particular problem for Georgia, with only 17.9 psychiatric care beds for every 100,000 people and a need for additional mental health care providers. The state has a shortage of physicians accepting Medicare fee-for-service patients (2.7 per 100 beneficiaries). Georgia's population struggles with adequate insurance coverage: 22.2% of adults and 10.9% of children have no health insurance, and both groups have high proportions of people who are underinsured (9.1 and 18.5%, respectively).

Georgia has a mixed report card in *Public Health and Injury Prevention*. The state is second in the nation in early childhood immunizations (83.9%). At the same time, it has some of the lowest rates of influenza and pneumococcal vaccination among older adults (55.2 and 66.5%, respectively). Georgia has the third lowest rate of traffic fatalities that are alcohol-related (26%), but it also has very high rates of bicyclist fatalities (8.3 per 100,000 cyclists) and pedestrian fatalities (9.4 per 100,000 pedestrians).

Recommendations. Georgia's most pressing concern is attracting needed specialists and other health care providers to the state to improve *Access to Emergency Care*. In

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	44	F	46	F
Quality & Patient Safety Environment	37	D+	26	C
Medical Liability Environment	4	A	12	B-
Public Health & Injury Prevention	24	C-	31	D+
Disaster Preparedness	22	C+	32	D+
OVERALL	31	C-	29	D+

addition, improved health insurance coverage for adults and children in Georgia is necessary to ensure that they can afford care when needed.

Additionally, Georgia must address the racial and ethnic disparities that persist for cardiovascular disease, HIV diagnoses, and infant mortality. The state has the seventh highest cardiovascular disease disparity ratio, with Native Americans having rates of cardiovascular disease that are 2.8 times higher than the race with the lowest likelihood of developing heart disease. Similarly, non-Hispanic Black infants are 3.1 times more likely to die in the first year of life than the race that is least likely. Georgia should work to ensure that all of its citizens have adequate access to preventive health care, education, treatment, and support to reduce these disparities.

Although Georgia has many strong *Disaster Preparedness* policies, it is nearly last in the nation in terms of physicians, nurses, and behavioral health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals. Engaging health care professionals in disaster preparedness is needed to support Georgia's ability to respond quickly and effectively during a disaster or mass casualty event.

Georgia's biggest challenge is ensuring that all people have adequate access to emergency care.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	8.0	
Emergency physicians per 100,000 pop.	10.4	
Neurosurgeons per 100,000 pop.	1.6	
Orthopedists and hand surgeon specialists per 100,000 pop.	7.5	
Plastic surgeons per 100,000 pop.	1.9	
ENT specialists per 100,000 pop.	3.2	
Registered nurses per 100,000 pop.	664.9	
Additional primary care FTEs needed per 100,000 pop.	2.6	
Additional mental health FTEs needed per 100,000 pop.	1.0	
% of children able to see provider	95.9	
Level I or II trauma centers per 1M pop.	1.1	
% of population within 60 minutes of Level I or II trauma center	89.6	
Accredited chest pain centers per 1M pop.	2.6	
% of population with an unmet need for substance abuse treatment	7.5	
Pediatric specialty centers per 1M pop.	2.6	
Physicians accepting Medicare per 100 beneficiaries	2.7	
Medicaid fee levels for office visits as a % of the national average	137.1	
% change in Medicaid fees for office visits (2007 to 2012)	54.5	
% of adults with no health insurance	22.2	
% of adults underinsured	9.1	
% of children with no health insurance	10.9	
% of children underinsured	18.5	
% of adults with Medicaid	7.4	
Emergency departments per 1M pop.	10.1	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	304.9	
Hospital occupancy rate per 100 staffed beds	67.7	
Psychiatric care beds per 100,000 pop.	17.9	
Median minutes from ED arrival to ED departure for admitted patients	279	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B-
Lawyers per 10,000 pop.	14.7	
Lawyers per physician	0.6	
Lawyers per emergency physician	14.1	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.7	
Average malpractice award payments	\$358,985	
Databank reports per 1,000 physicians	20.2	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	4.4	
Average medical liability insurance premium for primary care physicians	\$14,572	
Average medical liability insurance premium for specialists	\$58,811	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	Yes	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	Yes	
QUALITY & PATIENT SAFETY ENVIRONMENT		C
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	9.4	
Adverse event reporting required	Yes	
% of counties with E-911 capability	97.5	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	71.7	
% of hospitals with electronic medical records	95.0	
% of patients with AMI given PCI within 90 minutes of arrival	93	
Median time to transfer to another facility for acute coronary intervention	58	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	50.3	
% of hospitals having or planning to develop a diversity strategy/plan	43.7	
PUBLIC HEALTH & INJURY PREVENTION		D+
Traffic fatalities per 100,000 pop.	10.8	
Bicyclist fatalities per 100,000 cyclists	8.3	
Pedestrian fatalities per 100,000 pedestrians	9.4	
% of traffic fatalities alcohol related	26	
Front occupant restraint use (%)	93.0	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	7	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	83.9	
% of adults aged 65+ who received flu vaccine in past year	55.2	
% of adults aged 65+ who ever received pneumococcal vaccine	66.5	
Fatal occupational injuries per 1M workers	23.2	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	18.2	
Unintentional fall-related fatal injuries per 100,000 pop.	6.4	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.1	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.3	
Unintentional poisoning-related fatal injuries per 100,000 pop.	10.1	
Total injury prevention funds per 1,000 pop.	\$320.98	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	Yes	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	6.4	
Binge alcohol drinkers, % of adults	16.6	
Current smokers, % of adults	21.2	
% of adults with BMI >30	28.0	
% of children obese	16.5	
Cardiovascular disease disparity ratio	2.8	
HIV diagnoses disparity ratio	16.2	
Infant mortality disparity ratio	3.1	
DISASTER PREPAREDNESS		D+
Per capita federal disaster preparedness funds	\$4.72	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.7	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	In metro areas	
Bed surge capacity per 1M pop.	1507.5	
ICU beds per 1M pop.	204.2	
Burn unit beds per 1M pop.	9.4	
Verified burn centers per 1M pop.	0.2	
Physicians in ESAR-VHP per 1M pop.	2.5	
Nurses in ESAR-VHP per 1M pop.	56.8	
Behavioral health professionals in ESAR-VHP per 1M pop.	2.6	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	37.3	

NR = Not reported
N/A = Not applicable



Hawaii

Hawaii boasts a strong commitment to *Public Health and Injury Prevention*, for which it ranks second in the nation, as well as a top-notch emergency medical services (EMS) system focused on patient safety and quality of care. However, a severe gap in hospital capacity impedes the state's ability to respond to both everyday emergency care needs and potential disasters or mass casualty events.

Strengths. Hawaii continues to stand out in *Public Health and Injury Prevention*. The state has both low rates of chronic disease and low rates of fatal injuries in almost all measured categories. These stellar numbers are supported by the state's fiscal commitment to injury prevention, with high per capita injury prevention funding (\$961.64 for every 1,000 people) and funding sources specifically set aside for prevention of occupational injuries, childhood injuries, and injuries among older adults. Hawaii also has some of the lowest rates of adult and child obesity in the nation.

Hawaii has greatly improved its *Quality and Patient Safety Environment* since the last Report Card. The state has adopted a uniform system for providing pre-arrival instructions and has implemented a statewide trauma registry. Hawaii is ninth in the nation in terms of hospitals with computerized practitioner order entry (87.0%). It provides funding for quality improvement within the EMS system and has a funded state EMS medical director, demonstrating a strong commitment to quality improvement and system oversight.

Although Hawaii has numerous challenges related to *Access to Emergency Care*, the state ranks among the five best states for the proportion of adults (91.0%) and children (95.9%) with health insurance. Rates of underinsurance for both adults and children are also well below the national average.

Challenges. Hawaii's poor grade in *Access to Emergency Care* is primarily due to a lack of adequate hospital capacity, which can lead to dire outcomes. The closure of two hospitals in 2011 could be a contributing factor to a sharp need for beds and treatment centers, and Hawaii's isolated geography keeps its people from taking advantage of facilities in other states. Hawaii has one of the highest per capita rates of emergency physicians but few emergency departments (ED; 9.3 per 1 million people). Its hospitals are nearly at capacity, with the second highest hospital occupancy rate in the nation (77.1 per 100 staffed beds) and low numbers of staffed inpatient beds overall (231.9 per 1 million people), which contributes to long waits in the ED (330 minutes from ED arrival to departure). Other contributing factors to Hawaii's poor grade include low Medicaid reimbursement rates and shortages in some specialties, such as neurosurgeons and ear, nose, and throat specialists.

Hawaii's infrastructure problem is echoed by challenges in *Disaster Preparedness*. The state has no verified burn centers and low numbers of burn unit beds (2.2 per 1 million people), the lowest per capita rate of intensive care unit (ICU) beds in the nation (117.8 per 1 million), and the second lowest bed surge capacity (229.8 beds per 1 million). These infrastructure issues will greatly hamper Hawaii's ability to respond to a large-scale disaster or mass casualty event.

Hawaii's subpar grade for its *Medical Liability Environment* is aided by relatively low numbers of malpractice award payments (1.5 per 100,000 people) and average medical liability insurance premiums for primary care physicians (\$10,432) and specialists (\$44,860). Offsetting these relative advantages are few protections for the state's health care workforce and the highest average malpractice award payments in the nation (\$681,839).

Gaps in hospital and treatment facility capacity are highly problematic and lead to poor overall access to emergency care.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	22	C	44	F
Quality & Patient Safety Environment	39	D+	16	B-
Medical Liability Environment	16	C+	30	D+
Public Health & Injury Prevention	5	A-	2	A
Disaster Preparedness	24	C+	41	F
OVERALL	16	C+	24	C-

Recommendations. Hawaii has high rates of insurance and plenty of doctors overall, but gaps in hospital and treatment facility capacity are highly problematic and lead to overcrowding, long waits in the ED, and poor overall *Access to Emergency Care*. Increasing the availability of medical facilities, ICU beds, burn beds, EDs, and inpatient beds would go a long way toward improving the state's access to emergency medical care and increase its ability to respond to large-scale disasters.

Hawaii should consider adopting medical liability reforms such as reducing the medical liability cap on non-economic damages to \$250,000, requiring awards to be offset by collateral sources, and requiring periodic payments of malpractice awards. These reforms can reduce the incidence of defensive medicine and encourage more specialists to provide on-call services to emergency patients. Additionally, Hawaii should implement expert witness rules requiring case certification; ensure that expert witnesses are of the same specialty as the defendant; and institute liability protections for care mandated by the Emergency Medical Treatment and Labor Act, which requires emergency care providers to perform life-saving procedures without a pre-existing patient relationship and little to no knowledge of a patient's medical history.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	15.7	
Emergency physicians per 100,000 pop.	16.7	
Neurosurgeons per 100,000 pop.	1.1	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.8	
Plastic surgeons per 100,000 pop.	1.9	
ENT specialists per 100,000 pop.	2.9	
Registered nurses per 100,000 pop.	740.9	
Additional primary care FTEs needed per 100,000 pop.	0.4	
Additional mental health FTEs needed per 100,000 pop.	0.3	
% of children able to see provider	96.2	
Level I or II trauma centers per 1M pop.	0.7	
% of population within 60 minutes of Level I or II trauma center	61.7	
Accredited chest pain centers per 1M pop.	0.0	
% of population with an unmet need for substance abuse treatment	9.9	
Pediatric specialty centers per 1M pop.	0.7	
Physicians accepting Medicare per 100 beneficiaries	3.3	
Medicaid fee levels for office visits as a % of the national average	79.4	
% change in Medicaid fees for office visits (2007 to 2012)	0.0	
% of adults with no health insurance	9.0	
% of adults underinsured	6.3	
% of children with no health insurance	4.1	
% of children underinsured	13.3	
% of adults with Medicaid	12.5	
Emergency departments per 1M pop.	9.3	
Hospital closures in 2011	2	
Staffed inpatient beds per 100,000 pop.	231.9	
Hospital occupancy rate per 100 staffed beds	77.1	
Psychiatric care beds per 100,000 pop.	24.6	
Median minutes from ED arrival to ED departure for admitted patients	330	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		D+
Lawyers per 10,000 pop.	12.2	
Lawyers per physician	0.4	
Lawyers per emergency physician	7.3	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.5	
Average malpractice award payments	\$681,839	
Databank reports per 1,000 physicians	12.0	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	13.4	
Average medical liability insurance premium for primary care physicians	\$10,432	
Average medical liability insurance premium for specialists	\$44,860	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	No	
Periodic payments	No	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Partially	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		B-
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	0	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	87.0	
% of hospitals with electronic medical records	91.3	
% of patients with AMI given PCI within 90 minutes of arrival	88	
Median time to transfer to another facility for acute coronary intervention	219	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	50.0	
% of hospitals having or planning to develop a diversity strategy/plan	42.9	
PUBLIC HEALTH & INJURY PREVENTION		A
Traffic fatalities per 100,000 pop.	6.2	
Bicyclist fatalities per 100,000 cyclists	2.5	
Pedestrian fatalities per 100,000 pedestrians	3.5	
% of traffic fatalities alcohol related	50	
Front occupant restraint use (%)	96.0	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	80.7	
% of adults aged 65+ who received flu vaccine in past year	64.7	
% of adults aged 65+ who ever received pneumococcal vaccine	67.7	
Fatal occupational injuries per 1M workers	35.5	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	14.6	
Unintentional fall-related fatal injuries per 100,000 pop.	7.1	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	NR	

Unintentional firearm-related fatal injuries per 100,000 pop.	NR	
Unintentional poisoning-related fatal injuries per 100,000 pop.	7.6	
Total injury prevention funds per 1,000 pop.	\$961.64	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	Yes	
Gun-purchasing legislation (range 0-6)	3.5	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	6.2	
Binge alcohol drinkers, % of adults	21.5	
Current smokers, % of adults	16.8	
% of adults with BMI >30	21.9	
% of children obese	11.5	
Cardiovascular disease disparity ratio	1.5	
HIV diagnoses disparity ratio	NR	
Infant mortality disparity ratio	1.3	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$9.38	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	No State ESF-8 plan	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	4.3	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	No	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	229.8	
ICU beds per 1M pop.	117.8	
Burn unit beds per 1M pop.	2.2	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	25.1	
Nurses in ESAR-VHP per 1M pop.	185.3	
Behavioral health professionals in ESAR-VHP per 1M pop.	14.4	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	41.1	

NR = Not reported
N/A = Not applicable

Idaho

While Idaho continues to boast one of the best *Medical Liability Environments* in the nation, it still lacks focused planning in *Disaster Preparedness* and key provisions for improving the *Quality and Patient Safety Environment*, and it suffers from a severe workforce shortage.

Strengths. Idaho's *Medical Liability Environment* benefits from several important reforms that have been implemented over the years. The state's medical liability cap on non-economic damages reduces out-of-control medical malpractice payments, and mandatory pretrial screening panels help weed out frivolous lawsuits. Idaho also has instituted apology laws and abolished joint and several liability. The environment is further strengthened by a relatively high number of insurers writing medical liability policies (25.5 per 1,000 physicians) and only 1.4 malpractice award payments for every 100,000 people.

Idaho showed some strengths in *Public Health and Injury Prevention*, having among the lowest HIV diagnosis and infant mortality disparity ratios in the nation (1.1 and 1.4, respectively). The highest HIV diagnosis rate (among Hispanic persons) is only 1.1 times

greater than the lowest rate. Idaho's denizens also demonstrate healthy habits: Few adults smoke (17.2%) or engage in binge

drinking (16.6%), and Idaho's infant mortality rate is among the top 10 in the nation (4.8 per 1,000 live births).

Although Idaho ranks poorly in *Access to Emergency Care*, there are some bright spots. It has the lowest hospital occupancy rate in the country, with 52.6 of 100 staffed beds occupied. The state has good access to emergency departments (ED) and an admirably low median time from ED arrival to departure (238 minutes). The vast majority of the state's children can see a provider when necessary (96.7%).

Challenges. Idaho ranks among the bottom 10 states for its *Quality and Patient Safety Environment* due to a lack of funding and relatively few policies and proce-

dures designed to better support the safety and quality of emergency medical care. The state lacks funding for a state emergency medical services (EMS) medical director and does not require adverse event reporting, which would help discover and prevent medication- and medical equipment-related issues. Idaho lacks statewide field triage protocols and a uniform system for providing pre-arrival instructions, which could help in the administration of life-saving care while awaiting EMS arrival. Only half of all hospitals in the state collect data on race/ethnicity and primary language, and fewer have or are planning for a diversity strategy (26.9%).

In *Access to Emergency Care*, Idaho continues to struggle with a severe workforce shortage, with low rates of numerous specialty care providers. The state needs an additional 3.6 primary care providers and 1.2 mental health providers per 100,000 people, pointing to a sharp problem in accessing basic care. The state has relatively few staffed inpatient beds for its population (243.3 per 100,000 people), and the shortage of psychiatric care beds has intensified substantially since 2009, dropping from 29.0 to 13.8 per 100,000 people.

Finally, Idaho's *Disaster Preparedness* policies are in need of enhancement and revision. Idaho is one of the weakest states

in this category largely due to a lack of state-level disaster planning. For instance, the state does not have just-in-time training systems in place; nor does it have state or regional strike teams or medical assistance teams. Idaho also lacks a patient-tracking system and a process for incorporating emergency physician input into state planning.

Recommendations. Idaho could benefit greatly from improving its *Quality and Patient Safety Environment*. In 2013, the state passed legislation to begin developing systems of care for stroke and heart attack, which could standardize care across the state and improve patient outcomes. The state should also invest in a funded EMS

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	42	F	43	F
Quality & Patient Safety Environment	48	D-	45	F
Medical Liability Environment	6	B+	3	A-
Public Health & Injury Prevention	29	D+	33	D+
Disaster Preparedness	50	F	48	F
OVERALL	46	D	41	D

medical director position to oversee the implementation of these systems; it should also develop a uniform system for providing pre-arrival instructions and field trauma triage protocols. These changes would go a long way toward improving patient safety and the quality of care throughout the state.

Idaho should take steps to strengthen its *Disaster Preparedness*. It needs to incorporate emergency physician input into the state's planning and share its all-hazards plan with all EMS and essential hospital personnel. Idaho also should incorporate plans for medically fragile populations, such as patients dependent on medication for chronic conditions and mental health patients, into its medical response plan. Finally, implementing state or regional strike teams or medical assistance teams would help enhance the state's ability to respond quickly in an emergency.

Idaho must work to improve *Access to Emergency Care* by addressing the specialist (particularly on-call specialist) and primary care workforce shortages. Failure to improve access to on-call specialists in the ED ultimately may result in poor health outcomes. The state should also address its limited mental health care resources.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	9.0	
Emergency physicians per 100,000 pop.	11.7	
Neurosurgeons per 100,000 pop.	1.7	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.8	
Plastic surgeons per 100,000 pop.	1.4	
ENT specialists per 100,000 pop.	2.4	
Registered nurses per 100,000 pop.	736.2	
Additional primary care FTEs needed per 100,000 pop.	3.6	
Additional mental health FTEs needed per 100,000 pop.	1.2	
% of children able to see provider	96.7	
Level I or II trauma centers per 1M pop.	1.3	
% of population within 60 minutes of Level I or II trauma center	30.9	
Accredited chest pain centers per 1M pop.	2.5	
% of population with an unmet need for substance abuse treatment	8.8	
Pediatric specialty centers per 1M pop.	4.4	
Physicians accepting Medicare per 100 beneficiaries	3.1	
Medicaid fee levels for office visits as a % of the national average	NR	
% change in Medicaid fees for office visits (2007 to 2012)	NR	
% of adults with no health insurance	19.0	
% of adults underinsured	8.1	
% of children with no health insurance	11.3	
% of children underinsured	17.3	
% of adults with Medicaid	6.4	
Emergency departments per 1M pop.	20.1	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	243.3	
Hospital occupancy rate per 100 staffed beds	52.6	
Psychiatric care beds per 100,000 pop.	13.8	
Median minutes from ED arrival to ED departure for admitted patients	238	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		A-
Lawyers per 10,000 pop.	13.3	
Lawyers per physician	0.7	
Lawyers per emergency physician	11.4	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.4	
Average malpractice award payments	\$471,936	
Databank reports per 1,000 physicians	23.7	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	25.5	
Average medical liability insurance premium for primary care physicians	\$5,909	
Average medical liability insurance premium for specialists	\$28,703	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	No	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	\$250,001 -350,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		F
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	0	
Adverse event reporting required	No	
% of counties with E-911 capability	97.8	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No protocols	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	No	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	71.4	
% of hospitals with electronic medical records	92.9	
% of patients with AMI given PCI within 90 minutes of arrival	98	
Median time to transfer to another facility for acute coronary intervention	52	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	50.0	
% of hospitals having or planning to develop a diversity strategy/plan	26.9	
PUBLIC HEALTH & INJURY PREVENTION		D+
Traffic fatalities per 100,000 pop.	12.4	
Bicyclist fatalities per 100,000 cyclists	1.8	
Pedestrian fatalities per 100,000 pedestrians	2.6	
% of traffic fatalities alcohol related	33	
Front occupant restraint use (%)	79.1	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	4	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	68.8	
% of adults aged 65+ who received flu vaccine in past year	56.3	
% of adults aged 65+ who ever received pneumococcal vaccine	68.0	
Fatal occupational injuries per 1M workers	44.9	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	19.7	
Unintentional fall-related fatal injuries per 100,000 pop.	9.6	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.9	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.3	
Unintentional poisoning-related fatal injuries per 100,000 pop.	8.3	
Total injury prevention funds per 1,000 pop.	\$26.73	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	1	
Infant mortality rate per 1,000 live births	4.8	
Binge alcohol drinkers, % of adults	16.6	
Current smokers, % of adults	17.2	
% of adults with BMI >30	27.1	
% of children obese	10.6	
Cardiovascular disease disparity ratio	1.8	
HIV diagnoses disparity ratio	1.1	
Infant mortality disparity ratio	1.4	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$8.50	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	No	
Emergency physician input into the state planning process	No	
Public health and emergency physician input during an ESF-8 response	Yes, No	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	1.9	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	Local-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	None	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	533.3	
ICU beds per 1M pop.	309.6	
Burn unit beds per 1M pop.	0.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	18.2	
Nurses in ESAR-VHP per 1M pop.	391.7	
Behavioral health professionals in ESAR-VHP per 1M pop.	57.0	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	NR	
Liability protections for health care workers during a disaster (range 0-4)	NR	
% of RNs received disaster training	37.9	

NR = Not reported
N/A = Not applicable

Illinois

Illinois's fall from 27th to 45th place for its overall emergency care environment is largely due to major setbacks in its already challenging *Medical Liability Environment* and a failure to keep pace with other states in improving *Disaster Preparedness*.

Strengths. Illinois's strongest performance was for the *Quality and Patient Safety Environment*, largely due to a number of important policies and procedures that have been put in place. Illinois has a strong prescription drug monitoring program and a statewide trauma registry, which help ensure patient safety and quality improvement. It has also developed or is developing a system of care for stroke patients and ST-elevation myocardial infarction patients. These plans, along with triage and destination policies, help ensure that these patients receive prompt care in the most appropriate setting to enhance their chances for favorable outcomes. The state is currently adopting the new trauma triage guidelines for pre-hospital and trauma center activation, using the Centers for Disease Control and Prevention recommendations as baseline criteria.

Illinois has improved slightly in *Access to Emergency Care* over the past 5 years, having increased its per capita rates of emergency physicians, neurosurgeons, plastic surgeons, and registered nurses. It also has better-than-average health insurance coverage for children, with only 6.2% of children lacking insurance and 16.5% underinsured.

Illinois has several strengths in *Public Health and Injury Prevention*, especially in traffic safety. The state has one of the lowest rates of traffic fatalities (6.1 per 100,000 people) and a high rate of seatbelt use (92.9% of front-seat occupants). Strong child safety seat and seatbelt legislation and distracted driving laws are currently in place, and the state has below-average rates of bicyclist and pedestrian deaths.

Challenges. Illinois's ranking for its *Medical Liability Environment* fell sharply, from 34th to 50th in the nation, placing it near the bottom for medical liability support for emergency care. The state has fallen behind in the types of medical liability reforms enacted in other states over the past 5 years and has earned a reputation as a litigation environment unfavorable to defendants and prone to excessive verdicts. Compounding these issues, provisions for periodic payments and the state's medical liability cap on non-economic damages were ruled unconstitutional in 2010. Currently, Illinois has the second highest average malpractice award payments in the nation (\$599,439). Average medical liability insurance premiums for primary care physicians are also second highest in the country and premiums for specialists are \$36,000 more per year than the national average. Illinois currently has virtually no medical liability reforms in place to discourage frivolous lawsuits.

In *Public Health and Injury Prevention*, Illinois could do more to combat causes of chronic disease and illness in its population. The state has very low rates of immunization against influenza and pneumonia for older adults and a relatively high rate of binge drinking among adults (23%). Despite an average rate of adult obesity, the child obesity rate in Illinois is among the highest in the country (19.3%). Illinois also has a high cardiovascular disease disparity ratio, indicating that there are populations in the state who may not be receiving adequate preventive care.

Recommendations. The most pressing problem in Illinois is the state of its *Medical Liability Environment*. Without reform and a reversal of recent trends, the state risks losing its most qualified doctors and medical professionals to states where there is more protection against unnecessary lawsuits and excessive verdicts. Unfortunately, medical liability reform has not fared well in the Illinois court system to date.

Without medical liability reform, the state risks losing its most qualified doctors and medical professionals.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	39	D-	24	D
Quality & Patient Safety Environment	8	A-	22	C+
Medical Liability Environment	34	D	50	F
Public Health & Injury Prevention	28	D+	29	D+
Disaster Preparedness	8	A-	43	F
OVERALL	27	C	45	D

While changes in a number of *Disaster Preparedness* indicators from 2009 may partially explain the significant grade drop, Illinois now ranks well below most other states in this category. In 2012, the state's Department of Public Health sought legislation to enhance immunity for its health care responders during an emergency but was unsuccessful. Adopting liability protections might help the state increase the per capita numbers of physicians, nurses, and behavioral health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals, which are currently among the lowest in the nation.

Dwindling Medicaid reimbursement rates are another challenge for accessing needed care, especially with full implementation of the Patient Protection and Affordable Care Act and Medicaid expansion underway. The state has one of the lowest Medicaid fee levels for office visits, at only 57.9% of the national average, and rates have been stagnant since 2007. Illinois needs to increase Medicaid payments to attract more physicians to serve the Medicaid population and meet the state's growing need for primary care.

ACCESS TO EMERGENCY CARE D

Board-certified emergency physicians per 100,000 pop.	12.1
Emergency physicians per 100,000 pop.	15.1
Neurosurgeons per 100,000 pop.	2.2
Orthopedists and hand surgeon specialists per 100,000 pop.	8.6
Plastic surgeons per 100,000 pop.	2.3
ENT specialists per 100,000 pop.	3.2
Registered nurses per 100,000 pop.	962.5
Additional primary care FTEs needed per 100,000 pop.	3.2
Additional mental health FTEs needed per 100,000 pop.	0.6
% of children able to see provider	94.1
Level I or II trauma centers per 1M pop.	3.3
% of population within 60 minutes of Level I or II trauma center	95.8
Accredited chest pain centers per 1M pop.	3.2
% of population with an unmet need for substance abuse treatment	9.0
Pediatric specialty centers per 1M pop.	2.4
Physicians accepting Medicare per 100 beneficiaries	2.5
Medicaid fee levels for office visits as a % of the national average	57.9
% change in Medicaid fees for office visits (2007 to 2012)	0.0
% of adults with no health insurance	17.5
% of adults underinsured	6.7
% of children with no health insurance	6.2
% of children underinsured	16.5
% of adults with Medicaid	9.7
Emergency departments per 1M pop.	12.9
Hospital closures in 2011	1
Staffed inpatient beds per 100,000 pop.	288.6
Hospital occupancy rate per 100 staffed beds	64.1
Psychiatric care beds per 100,000 pop.	21.1
Median minutes from ED arrival to ED departure for admitted patients	265
State collects data on diversion	Yes

MEDICAL LIABILITY ENVIRONMENT F

Lawyers per 10,000 pop.	22.0
Lawyers per physician	0.7
Lawyers per emergency physician	14.6
ATRA judicial hellholes (range 2 to -6)	-4
Malpractice award payments/ 100,000 pop.	1.4
Average malpractice award payments	\$599,439
Databank reports per 1,000 physicians	17.6
Provider apology is inadmissible as evidence	No
Patient compensation fund	No
Number of insurers writing medical liability policies per 1,000 physicians	2.9
Average medical liability insurance premium for primary care physicians	\$27,593
Average medical liability insurance premium for specialists	\$94,220
Presence of pretrial screening panels	No
Pretrial screening panel's findings admissible as evidence	N/A
Periodic payments	No
Medical liability cap on non-economic damages	None
Additional liability protection for EMTALA-mandated emergency care	No
Joint and several liability abolished	No

Collateral source rule, provides for awards to be offset	Yes
State provides for case certification	Yes
Expert witness must be of the same specialty as the defendant	No
Expert witness must be licensed to practice medicine in the state	No

QUALITY & PATIENT SAFETY ENVIRONMENT C+

Funding for quality improvement within the EMS system	No
Funded state EMS medical director	Yes
Emergency medicine residents per 1M pop.	30.1
Adverse event reporting required	No
% of counties with E-911 capability	85.4
Uniform system for providing pre-arrival instructions	Yes
CDC guidelines are basis for state field triage protocols	NR
State has or is working on a stroke system of care	Yes
Triage and destination policy in place for stroke patients	Yes
State has or is working on a PCI network or a STEMI system of care	Yes
Triage and destination policy in place for STEMI patients	Yes
Statewide trauma registry	Yes
Triage and destination policy in place for trauma patients	Yes
Prescription drug monitoring program (range 0-4)	3
% of hospitals with computerized practitioner order entry	85.0
% of hospitals with electronic medical records	95.0
% of patients with AMI given PCI within 90 minutes of arrival	94
Median time to transfer to another facility for acute coronary intervention	45
% of patients with AMI who received aspirin within 24 hours	99
% of hospitals collecting data on race/ethnicity and primary language	67.0
% of hospitals having or planning to develop a diversity strategy/plan	50.2

PUBLIC HEALTH & INJURY PREVENTION D+

Traffic fatalities per 100,000 pop.	6.1
Bicyclist fatalities per 100,000 cyclists	3.0
Pedestrian fatalities per 100,000 pedestrians	3.4
% of traffic fatalities alcohol related	35
Front occupant restraint use (%)	92.9
Helmet use required for all motorcycle riders	No
Child safety seat/seat belt legislation (range 0-10)	8
Distracted driving legislation (range 0-4)	4
Graduated drivers' license legislation (range 0-5)	0
% of children immunized, aged 19-35 months	77.3
% of adults aged 65+ who received flu vaccine in past year	54.7
% of adults aged 65+ who ever received pneumococcal vaccine	62.5
Fatal occupational injuries per 1M workers	29.2
Homicides and suicides (non-motor vehicle) per 100,000 pop.	15.9
Unintentional fall-related fatal injuries per 100,000 pop.	7.0
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.8

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2
Unintentional poisoning-related fatal injuries per 100,000 pop.	9.0
Total injury prevention funds per 1,000 pop.	\$162.29
Dedicated child injury prevention funding	No
Dedicated elderly injury prevention funding	No
Dedicated occupational injury prevention funding	No
Gun-purchasing legislation (range 0-6)	3.5
Anti-smoking legislation (range 0-3)	3
Infant mortality rate per 1,000 live births	6.8
Binge alcohol drinkers, % of adults	23.0
Current smokers, % of adults	20.9
% of adults with BMI >30	27.1
% of children obese	19.3
Cardiovascular disease disparity ratio	2.8
HIV diagnoses disparity ratio	11.0
Infant mortality disparity ratio	2.7

DISASTER PREPAREDNESS F

Per capita federal disaster preparedness funds	\$8.47
State budget line item for health care surge	Yes
ESF-8 plan shared with all EMS and essential hospital personnel	No
Emergency physician input into the state planning process	Yes
Public health and emergency physician input during an ESF-8 response	Yes, No
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	15.4
Accredited by the Emergency Management Accreditation Program	Yes
Special needs patients in medical response plan	Yes
Patients on medication for chronic conditions in medical response plan	No
Medical response plan for supplying dialysis	No
Mental health patients in medical response plan	No
Medical response plan for supplying psychotropic medication	No
Mutual aid agreements with behavioral health providers	Local-level
Long-term care and nursing home facilities must have written disaster plan	Yes
State able to report number of exercises with long-term care or nursing home facilities	No
"Just-in-time" training systems in place	NR
Statewide medical communication system with one layer of redundancy	Yes
Statewide patient tracking system	No
Statewide real-time or near real-time syndromic surveillance system	Yes
Real-time surveillance system in place for common ED presentations	NR
Bed surge capacity per 1M pop.	290.0
ICU beds per 1M pop.	248.5
Burn unit beds per 1M pop.	5.0
Verified burn centers per 1M pop.	0.2
Physicians in ESAR-VHP per 1M pop.	3.1
Nurses in ESAR-VHP per 1M pop.	20.0
Behavioral health professionals in ESAR-VHP per 1M pop.	1.4
Strike teams or medical assistance teams	Yes
Disaster training required for essential hospital, EMS personnel	No
Liability protections for health care workers during a disaster (range 0-4)	3
% of RNs received disaster training	36.4

NR = Not reported
N/A = Not applicable

Indiana

Indiana has improved its *Medical Liability Environment* and *Access to Emergency Care* grades but still faces numerous challenges, including a need for state-level planning and coordination to improve the *Quality and Patient Safety Environment*, as well as *Disaster Preparedness*.

Strengths. Indiana's *Medical Liability Environment* improved somewhat since 2009 and now boasts the second lowest average malpractice award payment in the nation (\$122,334). The state has implemented many important reforms that contribute to this low rate, including apology inadmissibility laws, mandatory pretrial screening panels, rules that require malpractice awards to be offset by collateral sources, and a medical liability cap on total damages. Indiana also has a patient compensation fund in place to help cover monetary awards in medical malpractice cases. Indiana providers enjoy lower-than-average medical liability insurance premiums for primary care physicians (\$10,154) and specialists (\$49,113).

Although Indiana faces significant workforce challenges with low per capita rates of neurosurgeons; orthopedists and hand surgeons; plastic surgeons; and ear, nose, and throat specialists, the state has some strengths in *Access to Emergency Care*.

The state has a relatively adequate number of medical facilities, with a very low hospital occupancy rate (60.6 per 100 staffed beds) and better-than-average emergency department wait times (239 minutes), staffed inpatient beds (313.3 per 100,000 people), and psychiatric care beds (24.6 per 100,000). Indiana has some of the lowest rates of adults and children with no health insurance (14.2 and 5.6%, respectively). It has an unfortunately low Medicaid fee level for office visits, at 66.1% of the national average, though this represents a 16.8% fee level increase since 2007.

Indiana must address the severe shortage of specialists to improve care for its people.

Challenges. Indiana faces many challenges in *Disaster Preparedness* due to lack of written procedures for emergency response coordination and a fractured emergency response system. The state does not have an Emergency Support Function 8 (ESF-8) or all-hazards plan. Although Indiana has a statewide medical communication system and a statewide just-in-time training system, other statewide planning and coordination efforts are lacking, including statewide patient tracking and real-time syndromic surveillance systems. In terms of infrastructure, however, Indiana has a high per capita rate of intensive care unit beds and verified burn centers, although the state's bed surge capacity is quite low.

Indiana's *Quality and Patient Safety Environment* grade has declined, largely because of its failure to implement policies at a pace consistent with the rest of the nation. For instance, Indiana is one of few states that have not begun developing a stroke or a ST-elevation myocardial infarction (STEMI) system of care. The state also lacks destination policies for stroke and STEMI patients.

Indiana continues to face challenges related to *Public Health and Injury Prevention*, particularly in the area of child and infant health. For instance, the state has a relatively low percentage of young children who have received recommended immunizations (73.4%) and one of the higher infant mortality rates in the nation (7.6

per 1,000 live births). It also has a relatively high infant mortality disparity ratio, with non-Hispanic Black infants being 2.8 times more likely to die in the first year than the racial and ethnic group with the lowest infant mortality rate.

Recommendations. Indiana must address the severe shortage of specialists to improve care for its people. The positive changes to the *Medical Liability Environment* that have resulted in low insurance premiums are a good start toward recruiting and retaining more providers; however,

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	29	D	20	D+
Quality & Patient Safety Environment	26	C	39	D
Medical Liability Environment	29	D+	23	C
Public Health & Injury Prevention	41	D-	35	D
Disaster Preparedness	31	C	42	F
OVERALL	40	D+	40	D+

a concerted effort is needed to significantly increase the number of providers available and willing to be on call in the emergency department.

Indiana's *Disaster Preparedness* planning is in need of substantial improvement, starting with improved coordination between the various agencies responsible for emergency response and involvement of the state's public health and emergency physicians in emergency response planning. Improving the state's medical response plans and implementing more training opportunities should follow from these first steps.

Indiana should work to improve its *Quality and Patient Safety Environment* by developing policies and procedures that ensure that patients get the care they need. A uniform system for providing pre-arrival instructions and destination policies for stroke and STEMI patients would go a long way toward improving the state's emergency medical system of care. The Indiana House of Representatives has established a taskforce to examine the need for and establishment of a state EMS physician medical director to improve the quality of services delivered. The findings of this taskforce must be thoughtfully considered, as it represents a potentially promising step toward improving the system of care.

ACCESS TO EMERGENCY CARE		D+
Board-certified emergency physicians per 100,000 pop.	8.6	
Emergency physicians per 100,000 pop.	10.3	
Neurosurgeons per 100,000 pop.	1.5	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.0	
Plastic surgeons per 100,000 pop.	1.6	
ENT specialists per 100,000 pop.	2.7	
Registered nurses per 100,000 pop.	938.4	
Additional primary care FTEs needed per 100,000 pop.	1.2	
Additional mental health FTEs needed per 100,000 pop.	0.5	
% of children able to see provider	96.1	
Level I or II trauma centers per 1M pop.	0.9	
% of population within 60 minutes of Level I or II trauma center	97.0	
Accredited chest pain centers per 1M pop.	7.2	
% of population with an unmet need for substance abuse treatment	8.4	
Pediatric specialty centers per 1M pop.	3.5	
Physicians accepting Medicare per 100 beneficiaries	2.5	
Medicaid fee levels for office visits as a % of the national average	66.1	
% change in Medicaid fees for office visits (2007 to 2012)	16.8	
% of adults with no health insurance	14.2	
% of adults underinsured	8.1	
% of children with no health insurance	5.6	
% of children underinsured	18.0	
% of adults with Medicaid	10.9	
Emergency departments per 1M pop.	15.6	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	313.3	
Hospital occupancy rate per 100 staffed beds	60.6	
Psychiatric care beds per 100,000 pop.	24.6	
Median minutes from ED arrival to ED departure for admitted patients	239	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		C
Lawyers per 10,000 pop.	11.0	
Lawyers per physician	0.5	
Lawyers per emergency physician	10.7	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	2.5	
Average malpractice award payments	\$122,334	
Databank reports per 1,000 physicians	27.9	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	Yes	
Number of insurers writing medical liability policies per 1,000 physicians	6.5	
Average medical liability insurance premium for primary care physicians	\$10,154	
Average medical liability insurance premium for specialists	\$49,113	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	Yes	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		D
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	8.6	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	No	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	No	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	88.6	
% of hospitals with electronic medical records	96.0	
% of patients with AMI given PCI within 90 minutes of arrival	92	
Median time to transfer to another facility for acute coronary intervention	63	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	53.4	
% of hospitals having or planning to develop a diversity strategy/plan	46.0	
PUBLIC HEALTH & INJURY PREVENTION		D
Traffic fatalities per 100,000 pop.	10.4	
Bicyclist fatalities per 100,000 cyclists	5.3	
Pedestrian fatalities per 100,000 pedestrians	3.8	
% of traffic fatalities alcohol related	32	
Front occupant restraint use (%)	93.2	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	73.4	
% of adults aged 65+ who received flu vaccine in past year	60.6	
% of adults aged 65+ who ever received pneumococcal vaccine	70.5	
Fatal occupational injuries per 1M workers	38.6	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	18.0	
Unintentional fall-related fatal injuries per 100,000 pop.	5.6	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.2	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.3	
Unintentional poisoning-related fatal injuries per 100,000 pop.	11.0	
Total injury prevention funds per 1,000 pop.	\$0.85	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	Yes	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	7.6	
Binge alcohol drinkers, % of adults	17.8	
Current smokers, % of adults	25.6	
% of adults with BMI >30	30.8	
% of children obese	14.3	
Cardiovascular disease disparity ratio	1.8	
HIV diagnoses disparity ratio	8.7	
Infant mortality disparity ratio	2.8	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$4.55	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	No State ESF-8 plan	
Emergency physician input into the state planning process	NR	
Public health and emergency physician input during an ESF-8 response	No	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	8.3	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	No	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	Local-level	
Long-term care and nursing home facilities must have written disaster plan	No	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	317.6	
ICU beds per 1M pop.	356.1	
Burn unit beds per 1M pop.	4.1	
Verified burn centers per 1M pop.	0.5	
Physicians in ESAR-VHP per 1M pop.	23.9	
Nurses in ESAR-VHP per 1M pop.	156.9	
Behavioral health professionals in ESAR-VHP per 1M pop.	1.5	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No, Yes	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	28.8	

NR = Not reported
N/A = Not applicable

 **Iowa**

Iowa ranks 11th in the nation for its overall emergency care environment, with a strong commitment to *Public Health and Injury Prevention* and notable improvements in its *Disaster Preparedness* and *Quality and Patient Safety Environment*. However, the state faces critical health care workforce shortages and must continue to improve the *Medical Liability Environment*.

Strengths. Iowa's best performance was in *Public Health and Injury Prevention*. Iowa supports relatively high injury prevention funding (\$588.66 per 1,000 people) and enjoys low fatal injury rates. For instance, it has the eighth lowest rate of homicide and suicide (14.2 per 100,000 people). For motor vehicle accidents, it has a very low rate of traffic fatalities that are alcohol-related (27%), and one of the lowest pedestrian fatality rates in the country (1.7 per 100,000 pedestrians). Iowa fares well with immunizations, ranking second in the nation for influenza vaccination among older adults (70.2%). It has an exceedingly low infant mortality rate (4.9 per 1,000 live births) and a below-average rate of childhood obesity (13.6%).

Iowa has made notable improvements to its *Disaster Preparedness* practices and policies since the last Report Card, more than doubling bed surge capacity (1,742.6 beds per 1 million people) to the third highest in the country, as well as incorporating patients dependent on medication for chronic conditions into its medical response plan. It also has the fifth highest percentage of nurses who have received disaster training (47.2%), and it has substantially increased the per capita rates of physicians, nurses, and behavioral health providers registered in the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), though these rates still fall well below the national average.

Limited access to health care providers, including the lowest per capita rate of emergency physicians in the nation, burdens the Iowa health care system.

Challenges. Although Iowa has a strong showing in many areas of *Access to Emergency Care*, the state is facing a severe shortage of health care providers. It has the lowest per capita rate of emergency physicians in the nation, (6.8 per 100,000 people). Iowa also lacks neurosurgeons, plastic surgeons, and orthopedists and hand surgeons, ranking almost last in the nation for all these specialties. It is below average in terms of access to physicians accepting Medicare fee-for-service patients, a trend that is likely to worsen as the population ages. The state's Medicaid fee levels have declined by 1.2% since 2007, a troubling trend in light of the state's decision to expand Medicaid under the Affordable Care Act.

Iowa has developed a percutaneous coronary intervention network or a ST-elevation myocardial infarction (STEMI) system of care and increased the number of emergency medicine residents since the last Report Card, which has helped to improve its overall standing in *Quality and Patient Safety Environment*. However, the state lacks important provisions, including triage and destination policies for stroke and STEMI patients that allow emergency medical services (EMS) to bypass local hospitals for medical specialty centers.

Iowans also could benefit from the implementation of a uniform system for providing pre-arrival instructions, which could help to administer life-saving care while awaiting EMS arrival.

Iowa's *Medical Liability Environment* ranks squarely in the middle of the pack. Although Iowa has relatively low average medical liability insurance premiums for primary care physicians (\$7,280) and specialists (\$32,184), it has few protections in place for providers, including those responsible for administering emergency care.

Recommendations. Limited access to specialists and other health care providers

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	9	B-	13	C-
Quality & Patient Safety Environment	42	D	27	C
Medical Liability Environment	32	D	27	C
Public Health & Injury Prevention	12	B	14	B
Disaster Preparedness	23	C+	14	C+
OVERALL	19	C	11	C

continues to burden the Iowa health care system. The state must work to attract and retain a skilled health care workforce to handle the growing health care needs of its population. Increasing Medicaid fee levels to meet or exceed the national average may help address the problem, as would a more favorable *Medical Liability Environment*.

Iowa should enact liability protections for providers administering care mandated by the Emergency Medical Treatment and Labor Act: care to high-risk patients when the provider does not have a preexisting patient relationship and has little to no knowledge of a patient's medical history. Additionally, pretrial screening panels or provisions for case certification could help discourage frivolous lawsuits, and a medical liability cap on non-economic damages could prevent excessive verdicts.

Despite its stellar score in *Public Health and Injury Prevention*, Iowa has one of the higher rates of fatal occupational injuries (48.5 per 1 million workers). Dedication of funds specifically for occupational injury prevention may be useful in addressing this concern. Iowa also needs to reach out to medical professionals and increase registration in ESAR-VHP to increase the state's ability to respond quickly to a major disaster or mass casualty event.

ACCESS TO EMERGENCY CARE		C-
Board-certified emergency physicians per 100,000 pop.	4.3	
Emergency physicians per 100,000 pop.	6.8	
Neurosurgeons per 100,000 pop.	1.3	
Orthopedists and hand surgeon specialists per 100,000 pop.	7.2	
Plastic surgeons per 100,000 pop.	1.1	
ENT specialists per 100,000 pop.	3.8	
Registered nurses per 100,000 pop.	1084.5	
Additional primary care FTEs needed per 100,000 pop.	2.1	
Additional mental health FTEs needed per 100,000 pop.	0.8	
% of children able to see provider	97.6	
Level I or II trauma centers per 1M pop.	2.0	
% of population within 60 minutes of Level I or II trauma center	80.1	
Accredited chest pain centers per 1M pop.	2.3	
% of population with an unmet need for substance abuse treatment	9.3	
Pediatric specialty centers per 1M pop.	6.2	
Physicians accepting Medicare per 100 beneficiaries	2.7	
Medicaid fee levels for office visits as a % of the national average	93.5	
% change in Medicaid fees for office visits (2007 to 2012)	-1.2	
% of adults with no health insurance	11.6	
% of adults underinsured	5.5	
% of children with no health insurance	4.9	
% of children underinsured	15.9	
% of adults with Medicaid	10.4	
Emergency departments per 1M pop.	40.0	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	344.4	
Hospital occupancy rate per 100 staffed beds	57.8	
Psychiatric care beds per 100,000 pop.	28.0	
Median minutes from ED arrival to ED departure for admitted patients	198	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		C
Lawyers per 10,000 pop.	9.7	
Lawyers per physician	0.4	
Lawyers per emergency physician	14.2	
ATRA judicial hellholes (range 2 to -6)	1	
Malpractice award payments/ 100,000 pop.	1.7	
Average malpractice award payments	\$256,226	
Databank reports per 1,000 physicians	28.2	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	11.5	
Average medical liability insurance premium for primary care physicians	\$7,280	
Average medical liability insurance premium for specialists	\$32,184	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	7.8	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2006)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	85.1	
% of hospitals with electronic medical records	93.4	
% of patients with AMI given PCI within 90 minutes of arrival	94	
Median time to transfer to another facility for acute coronary intervention	59	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	85.7	
% of hospitals having or planning to develop a diversity strategy/plan	54.0	
PUBLIC HEALTH & INJURY PREVENTION		B
Traffic fatalities per 100,000 pop.	11.9	
Bicyclist fatalities per 100,000 cyclists	3.7	
Pedestrian fatalities per 100,000 pedestrians	1.7	
% of traffic fatalities alcohol related	27	
Front occupant restraint use (%)	93.5	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	5	
Distracted driving legislation (range 0-4)	1	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	78.9	
% of adults aged 65+ who received flu vaccine in past year	70.2	
% of adults aged 65+ who ever received pneumococcal vaccine	70.9	
Fatal occupational injuries per 1M workers	48.5	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	14.2	
Unintentional fall-related fatal injuries per 100,000 pop.	12.9	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.1	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	6.7	
Total injury prevention funds per 1,000 pop.	\$588.66	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0.5	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	4.9	
Binge alcohol drinkers, % of adults	23.1	
Current smokers, % of adults	20.4	
% of adults with BMI >30	29.0	
% of children obese	13.6	
Cardiovascular disease disparity ratio	1.4	
HIV diagnoses disparity ratio	8.5	
Infant mortality disparity ratio	2.5	

DISASTER PREPAREDNESS		C+
Per capita federal disaster preparedness funds	\$5.90	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	4.3	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	1742.6	
ICU beds per 1M pop.	272.6	
Burn unit beds per 1M pop.	5.2	
Verified burn centers per 1M pop.	0.3	
Physicians in ESAR-VHP per 1M pop.	10.1	
Nurses in ESAR-VHP per 1M pop.	113.2	
Behavioral health professionals in ESAR-VHP per 1M pop.	4.9	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	NR	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	47.2	

NR = Not reported
N/A = Not applicable

Kansas

With its strong *Medical Liability Environment*, Kansas enjoys relatively solid access to health care providers and hospital facilities. However, the state should concentrate on improvements to the *Quality and Patient Safety Environment* to ensure that its citizens are receiving uniform care that will enhance outcomes in emergencies.

Strengths. Kansas has the fourth best *Medical Liability Environment* in the nation, boasting strong protections for health care providers. The state has the seventh lowest average malpractice award payments (\$154,127) and well-below-average medical liability insurance premiums for both primary care physicians (\$8,610) and specialists (\$37,651). Kansas has enacted many reforms that discourage frivolous lawsuits, including voluntary pretrial screening panels whose findings are admissible as evidence and rules on expert witness qualifications. The state's \$250,000 cap on non-economic damages was also recently upheld by the state's Supreme Court.

While declining somewhat in *Access to Emergency Care* since 2009, Kansas continues to enjoy a solid health care workforce with better than average numbers of orthopedists and hand surgeons; plastic surgeons; and registered nurses. The state fared well for access to emergency care facilities, with the third highest per capita rate of emergency departments (ED) (44.7 per 1 million people) and the second lowest ED wait times (180

minutes from ED arrival to departure for admitted patients), despite having one of the lowest rates of emergency physicians in the nation (8.3 per 100,000 people). Kansas has the third lowest hospital occupancy rate in the nation and ranks among the top 10 states in access to accredited chest pain centers and pediatric specialty centers.

Kansas has made several improvements in *Disaster Preparedness* since the last Report Card. The state's medical response plan

now includes special needs patients, patients dependent on medication for chronic conditions, and patients dependent on dialysis. Public health and emergency physician input is included during an Emergency Support Function 8 response, and emergency physicians have input into state disaster planning. In addition, Kansas has a strong infrastructure for a disaster or mass casualty event, with high rates of burn unit beds and intensive care unit beds.

Challenges. Kansas's poor grade in *Quality and Patient Safety Environment* is due to a lack of guidelines and protocols for its emergency medical services (EMS) system. For instance, Kansas lacks a uniform system for providing pre-arrival instructions that could aid in providing life-saving care in an emergency and does not have state field triage protocols. Outside of the major metropolitan areas, Kansas does not have triage and destination policies in place for trauma, ST-elevation myocardial infarction (STEMI), or stroke patients. The state has not dedicated funding for quality improvement within the EMS system and lacks a funded state EMS medical director to oversee quality improvement and patient safety in the state.

Although the state performed better than average in *Public Health and Injury Prevention*, Kansas has a few concerning indicators. The state has a very high rate of fatal occupational injuries (56.1 per 1 million workers), which is only

slightly lower than reported in the previous Report Card, and has no funding sources specifically dedicated for occupational injury prevention. Kansas also has a high rate of traffic fatalities, and lacks a ban on handheld cellphone use while driving.

Recommendations. Kansas must invest in quality improvement efforts that will benefit its population, such as instituting a uniform system for providing pre-arrival instructions. The state must consider

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	7	B-	14	C-
Quality & Patient Safety Environment	38	D+	44	F
Medical Liability Environment	3	A	4	A-
Public Health & Injury Prevention	22	C	18	C+
Disaster Preparedness	37	D+	26	C-
OVERALL	8	C+	16	C

funding a state EMS medical director position to oversee development and implementation of field triage guidelines and destination policies for stroke, STEMI, and trauma patients to take full advantage of the state's relative abundance of trauma centers and chest pain centers.

The state must continue to support and build on the success it has realized in establishing its first emergency residency program in order to increase the number of emergency physicians, as well as board-certified emergency physicians, practicing in the state. Expanding the size of its residency program would be a significant step in this direction. Kansas also must work to address its high rates of uninsured and underinsured children (9.4 and 21.1%, respectively) to ensure all are able to access care when they need it.

Kansas should continue to improve its *Disaster Preparedness* by increasing the number of health care providers registered with the Emergency System for Advance Registration of Volunteer Health Professionals. The state has a very low rate of physicians registered (5.9 per 1 million people) and only an average rate of nurses registered (189.5 per 1 million).

ACCESS TO EMERGENCY CARE		C-
Board-certified emergency physicians per 100,000 pop.	7.9	
Emergency physicians per 100,000 pop.	8.3	
Neurosurgeons per 100,000 pop.	1.5	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.9	
Plastic surgeons per 100,000 pop.	2.4	
ENT specialists per 100,000 pop.	3.4	
Registered nurses per 100,000 pop.	981.7	
Additional primary care FTEs needed per 100,000 pop.	2.3	
Additional mental health FTEs needed per 100,000 pop.	0.7	
% of children able to see provider	96.3	
Level I or II trauma centers per 1M pop.	2.1	
% of population within 60 minutes of Level I or II trauma center	78.7	
Accredited chest pain centers per 1M pop.	5.2	
% of population with an unmet need for substance abuse treatment	8.7	
Pediatric specialty centers per 1M pop.	5.2	
Physicians accepting Medicare per 100 beneficiaries	2.8	
Medicaid fee levels for office visits as a % of the national average	89.0	
% change in Medicaid fees for office visits (2007 to 2012)	0.0	
% of adults with no health insurance	14.9	
% of adults underinsured	6.7	
% of children with no health insurance	9.4	
% of children underinsured	21.1	
% of adults with Medicaid	7.1	
Emergency departments per 1M pop.	44.7	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	418.3	
Hospital occupancy rate per 100 staffed beds	56.5	
Psychiatric care beds per 100,000 pop.	39.0	
Median minutes from ED arrival to ED departure for admitted patients	180	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		A-
Lawyers per 10,000 pop.	12.9	
Lawyers per physician	0.5	
Lawyers per emergency physician	15.6	
ATRA judicial hellholes (range 2 to -6)	1	
Malpractice award payments/ 100,000 pop.	3.1	
Average malpractice award payments	\$154,127	
Databank reports per 1,000 physicians	26.7	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	Yes	
Number of insurers writing medical liability policies per 1,000 physicians	10.7	
Average medical liability insurance premium for primary care physicians	\$8,610	
Average medical liability insurance premium for specialists	\$37,651	
Presence of pretrial screening panels	Voluntary	
Pretrial screening panel's findings admissible as evidence	Yes	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	\$250,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		F
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	6.2	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No protocols	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	No	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	63.8	
% of hospitals with electronic medical records	75.9	
% of patients with AMI given PCI within 90 minutes of arrival	95	
Median time to transfer to another facility for acute coronary intervention	66	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	74.1	
% of hospitals having or planning to develop a diversity strategy/plan	39.2	
PUBLIC HEALTH & INJURY PREVENTION		C+
Traffic fatalities per 100,000 pop.	14.3	
Bicyclist fatalities per 100,000 cyclists	4.2	
Pedestrian fatalities per 100,000 pedestrians	2.6	
% of traffic fatalities alcohol related	34	
Front occupant restraint use (%)	82.9	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	81.1	
% of adults aged 65+ who received flu vaccine in past year	67.6	
% of adults aged 65+ who ever received pneumococcal vaccine	70.8	
Fatal occupational injuries per 1M workers	56.1	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	17.2	
Unintentional fall-related fatal injuries per 100,000 pop.	11.2	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.1	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	7.6	
Total injury prevention funds per 1,000 pop.	\$415.63	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	1	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	6.2	
Binge alcohol drinkers, % of adults	17.0	
Current smokers, % of adults	22.0	
% of adults with BMI >30	29.6	
% of children obese	14.2	
Cardiovascular disease disparity ratio	2.1	
HIV diagnoses disparity ratio	8.4	
Infant mortality disparity ratio	2.6	
DISASTER PREPAREDNESS		C-
Per capita federal disaster preparedness funds	\$6.12	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.4	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	612.6	
ICU beds per 1M pop.	335.8	
Burn unit beds per 1M pop.	9.7	
Verified burn centers per 1M pop.	0.7	
Physicians in ESAR-VHP per 1M pop.	5.9	
Nurses in ESAR-VHP per 1M pop.	189.5	
Behavioral health professionals in ESAR-VHP per 1M pop.	37.8	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	37.9	

NR = Not reported
N/A = Not applicable

Kentucky

With ample medical facilities and high rates of insured children, Kentucky has improved somewhat in *Access to Emergency Care*. However, the state's poor *Medical Liability Environment* and lack of provisions to improve the *Quality and Patient Safety Environment* bring the state's overall emergency care environment to fifth worst in the nation.

Strengths. Kentucky ranks 12th in the nation in *Access to Emergency Care*, largely due to improvements in key measures since the previous Report Card. Kentucky's citizens enjoy increasing access to accredited chest pain centers (5.5 per 1 million people) and above-average per capita rates of pediatric specialty centers (3.9 per 1 million people). Access to behavioral health care is also relatively strong, with a low rate of unmet need for substance abuse treatment (7.3%) and one of the nation's highest per capita rates of psychiatric care beds (34.5 per 100,000 people). Kentucky has also increased Medicaid fee levels for office visits by 58.0% since 2007, although those payments continue to lag behind the national average.

Kentucky also has some bright spots in *Disaster Preparedness*, including the fifth highest bed surge capacity (1,707.8 per 1 million people). The state's disaster preparedness plans are relatively comprehensive, and statewide systems are in place, such as a just-in-time training system and a statewide medical communication system with one layer of redundancy.

Challenges. Kentucky continues to suffer from a poor *Medical Liability Environment*, having made no progress since the previous Report Card and failing to enact even the most basic reforms, such as apology inadmissibility laws that would allow providers to apologize to patients and their families for unfortunate circumstances without fear that it will be used against them as evidence in court.

The state also lacks pretrial screening panels and a process for case certification by expert witnesses.

Kentucky lags in its *Quality and Patient Safety Environment*. Although it does have a funded state EMS medical director, Kentucky lacks some state-level protocols that can ensure that emergency patients receive life-saving care, such as a uniform system for providing pre-arrival instructions, and triage and destination policies for ST-elevation myocardial infarction (STEMI) patients. The state does not require adverse event reporting, which can help track and prevent medication errors and unfavorable patient outcomes.

In the area of *Public Health and Injury Prevention*, Kentucky has some bright spots, such as the fourth highest rate of childhood

immunizations and above-average rates of influenza vaccinations for older adults. These indicators are tempered by high health risk factors. Kentucky has the highest rate of adult smoking in

the nation (29.0%), and weak antismoking laws increase opportunities for second-hand smoke exposure. Kentucky also has among the highest rates of adult and child obesity in the country (30.4 and 19.7%, respectively). Additionally, a high cardiovascular disease disparity ratio indicates that some racial and ethnic groups lack access to proper prevention and medical care.

Recommendations. Kentucky must work to improve its failing grade in *Quality and Patient Safety* by continuing to develop and improve statewide emergency response policies. The state should investigate implementing statewide policies to improve and standardize care, including destination policies for STEMI and stroke patients, which could benefit from the state's relatively high rate of accredited chest pain centers.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	19	C	12	C
Quality & Patient Safety Environment	49	F	43	F
Medical Liability Environment	47	F	48	F
Public Health & Injury Prevention	35	D	34	D
Disaster Preparedness	28	C+	33	D
OVERALL	44	D+	47	D

Kentucky is long overdue for improving its *Medical Liability Environment*. The state must work to implement expert witness rules that require experts to be of the same specialty as the defendant and licensed to practice medicine in the state. Requiring case certification by expert witnesses may also reduce the number of frivolous malpractice cases brought to court, alleviating this burden on providers, patients, and the court system as a whole. Kentucky should also consider implementing additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act (EMTALA), which requires physicians to provide lifesaving care, often without a preexisting patient relationship and little to no knowledge of a patient's medical history.

While Kentucky's decision to expand Medicaid under the Patient Protection and Affordable Care Act undoubtedly will help increase health insurance coverage among adults, the state must continue to increase reimbursements for providers accepting Medicaid. While Kentucky has increased fee levels since 2007, these rates still fall below the national average and may not be sufficient to attract and retain primary care providers needed to meet increasing health care demands.

ACCESS TO EMERGENCY CARE C

Board-certified emergency physicians per 100,000 pop.	7.0
Emergency physicians per 100,000 pop.	11.7
Neurosurgeons per 100,000 pop.	1.9
Orthopedists and hand surgeon specialists per 100,000 pop.	8.7
Plastic surgeons per 100,000 pop.	2.2
ENT specialists per 100,000 pop.	3.0
Registered nurses per 100,000 pop.	1026.1
Additional primary care FTEs needed per 100,000 pop.	1.3
Additional mental health FTEs needed per 100,000 pop.	0.8
% of children able to see provider	96.5
Level I or II trauma centers per 1M pop.	0.5
% of population within 60 minutes of Level I or II trauma center	90.1
Accredited chest pain centers per 1M pop.	5.5
% of population with an unmet need for substance abuse treatment	7.3
Pediatric specialty centers per 1M pop.	3.9
Physicians accepting Medicare per 100 beneficiaries	2.4
Medicaid fee levels for office visits as a % of the national average	93.0
% change in Medicaid fees for office visits (2007 to 2012)	58.0
% of adults with no health insurance	17.4
% of adults underinsured	9.8
% of children with no health insurance	4.6
% of children underinsured	17.2
% of adults with Medicaid	10.8
Emergency departments per 1M pop.	18.5
Hospital closures in 2011	0
Staffed inpatient beds per 100,000 pop.	376.9
Hospital occupancy rate per 100 staffed beds	60.9
Psychiatric care beds per 100,000 pop.	34.5
Median minutes from ED arrival to ED departure for admitted patients	244
State collects data on diversion	No

MEDICAL LIABILITY ENVIRONMENT F

Lawyers per 10,000 pop.	12.3
Lawyers per physician	0.5
Lawyers per emergency physician	10.5
ATRA judicial hellholes (range 2 to -6)	0
Malpractice award payments/ 100,000 pop.	2.4
Average malpractice award payments	\$259,211
Databank reports per 1,000 physicians	41.9
Provider apology is inadmissible as evidence	No
Patient compensation fund	No
Number of insurers writing medical liability policies per 1,000 physicians	8.9
Average medical liability insurance premium for primary care physicians	\$12,089
Average medical liability insurance premium for specialists	\$52,883
Presence of pretrial screening panels	No
Pretrial screening panel's findings admissible as evidence	N/A
Periodic payments	At court's discretion
Medical liability cap on non-economic damages	None
Additional liability protection for EMTALA-mandated emergency care	No
Joint and several liability abolished	Yes

Collateral source rule, provides for awards to be offset	No
State provides for case certification	No
Expert witness must be of the same specialty as the defendant	No
Expert witness must be licensed to practice medicine in the state	No

QUALITY & PATIENT SAFETY ENVIRONMENT F

Funding for quality improvement within the EMS system	No
Funded state EMS medical director	Yes
Emergency medicine residents per 1M pop.	12.8
Adverse event reporting required	No
% of counties with E-911 capability	96.7
Uniform system for providing pre-arrival instructions	No
CDC guidelines are basis for state field triage protocols	No protocols
State has or is working on a stroke system of care	Yes
Triage and destination policy in place for stroke patients	No
State has or is working on a PCI network or a STEMI system of care	Yes
Triage and destination policy in place for STEMI patients	No
Statewide trauma registry	Yes
Triage and destination policy in place for trauma patients	Yes
Prescription drug monitoring program (range 0-4)	3
% of hospitals with computerized practitioner order entry	67.9
% of hospitals with electronic medical records	92.7
% of patients with AMI given PCI within 90 minutes of arrival	93
Median time to transfer to another facility for acute coronary intervention	65
% of patients with AMI who received aspirin within 24 hours	99
% of hospitals collecting data on race/ethnicity and primary language	54.6
% of hospitals having or planning to develop a diversity strategy/plan	45.4

PUBLIC HEALTH & INJURY PREVENTION D

Traffic fatalities per 100,000 pop.	15.9
Bicyclist fatalities per 100,000 cyclists	4.7
Pedestrian fatalities per 100,000 pedestrians	5.0
% of traffic fatalities alcohol related	28
Front occupant restraint use (%)	82.2
Helmet use required for all motorcycle riders	No
Child safety seat/seat belt legislation (range 0-10)	7
Distracted driving legislation (range 0-4)	2
Graduated drivers' license legislation (range 0-5)	1
% of children immunized, aged 19-35 months	82.4
% of adults aged 65+ who received flu vaccine in past year	64.2
% of adults aged 65+ who ever received pneumococcal vaccine	70.0
Fatal occupational injuries per 1M workers	36.6
Homicides and suicides (non-motor vehicle) per 100,000 pop.	19.2
Unintentional fall-related fatal injuries per 100,000 pop.	6.6
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.7

Unintentional firearm-related fatal injuries per 100,000 pop.	0.5
Unintentional poisoning-related fatal injuries per 100,000 pop.	21.9
Total injury prevention funds per 1,000 pop.	\$221.51
Dedicated child injury prevention funding	Yes
Dedicated elderly injury prevention funding	No
Dedicated occupational injury prevention funding	Yes
Gun-purchasing legislation (range 0-6)	0
Anti-smoking legislation (range 0-3)	0
Infant mortality rate per 1,000 live births	6.8
Binge alcohol drinkers, % of adults	16.1
Current smokers, % of adults	29.0
% of adults with BMI >30	30.4
% of children obese	19.7
Cardiovascular disease disparity ratio	3.5
HIV diagnoses disparity ratio	8.3
Infant mortality disparity ratio	2.5

DISASTER PREPAREDNESS D

Per capita federal disaster preparedness funds	\$5.03
State budget line item for health care surge	No
ESF-8 plan shared with all EMS and essential hospital personnel	Yes
Emergency physician input into the state planning process	Yes
Public health and emergency physician input during an ESF-8 response	Yes, No
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	2.5
Accredited by the Emergency Management Accreditation Program	No
Special needs patients in medical response plan	Yes
Patients on medication for chronic conditions in medical response plan	Yes
Medical response plan for supplying dialysis	No
Mental health patients in medical response plan	Yes
Medical response plan for supplying psychotropic medication	No
Mutual aid agreements with behavioral health providers	State-level
Long-term care and nursing home facilities must have written disaster plan	Yes
State able to report number of exercises with long-term care or nursing home facilities	Yes
"Just-in-time" training systems in place	Statewide
Statewide medical communication system with one layer of redundancy	Yes
Statewide patient tracking system	No
Statewide real-time or near real-time syndromic surveillance system	No
Real-time surveillance system in place for common ED presentations	No
Bed surge capacity per 1M pop.	1707.8
ICU beds per 1M pop.	285.1
Burn unit beds per 1M pop.	3.0
Verified burn centers per 1M pop.	0.0
Physicians in ESAR-VHP per 1M pop.	11.9
Nurses in ESAR-VHP per 1M pop.	209.6
Behavioral health professionals in ESAR-VHP per 1M pop.	14.8
Strike teams or medical assistance teams	Yes
Disaster training required for essential hospital, EMS personnel	No, Yes
Liability protections for health care workers during a disaster (range 0-4)	3
% of RNs received disaster training	39.8

NR = Not reported
N/A = Not applicable

Louisiana

Louisiana continues to support one of the best *Disaster Preparedness* systems in the nation, with robust training and well-developed plans and policies in place. However, the state has faltered in its *Quality and Patient Safety Environment*, which lacks similar statewide policies and procedures for providing superior care.

Strengths. Louisiana's *Disaster Preparedness* is third best in the nation. The state has strong protocols and plans to help ensure the safety of medically fragile patients and a demonstrated commitment to including stakeholders' input in the state's planning. Louisiana has robust systems for preparing emergency workers, with just-in-time training systems available statewide and a well-above-average rate of nurses who have received disaster training (42.2%). The state's medical workforce is engaged, with the fifth highest per capita rate of physicians registered in the Emergency System for Advance Registration of Volunteer Health Professionals (146.7 per 1 million people). Louisiana also has secured additional liability protections for health care workers during a disaster by passing Uniform Emergency Volunteer Health Practitioners Act model legislation.

Louisiana's *Medical Liability Environment* is moderate and boasts the lowest average malpractice award payments in the nation at \$75,882—a 75% decrease since the previous Report Card—although the number of award payments has increased significantly (3.6 per 1,000 physicians), as has the number of National Practitioner Databank Reports (55.6 per 1,000 physicians), which indicates the high number of cases that are reviewed. Louisiana has enacted several reforms that protect its health care workforce, including mandatory pre-trial screening panels whose findings are admissible as evidence, required periodic payments of awards, and a medical liability cap on damages.

Louisiana should invest in improvements to the emergency medical services system and increase access to emergency care.

Challenges. Adequate *Access to Emergency Care* continues to be a major concern in Louisiana, which has among the highest rates of adults and children without health insurance (23.9 and 11.6%, respectively) and a desperate need for primary care and mental health care providers. Access to trauma centers is particularly problematic as well, with the fewest Level I or II trauma centers per capita (0.4 per 1 million people) and a low proportion of its population living within 60 minutes of a Level I or II trauma center (59.1%).

While Louisiana's provisions for quality and patient safety are among the weakest in the nation, initiatives are underway to address some of the key areas of concern. For example, while the state does not fund quality improvement efforts within the emergency medical services (EMS) system, the Bureau of Health Standards requires mandatory reporting of quality assurance for ambulance licensure and renewals. Additionally, while the state does not currently have ST-elevation myocardial infarction (STEMI) or stroke systems of care, the Louisiana Emergency Response Network has been working with its provider partners throughout the state to make substantial progress towards developing those systems.

Louisiana continues to face many challenges in the area of *Public Health and Injury Prevention*. Traffic safety is a pressing concern: Louisiana has the second highest rate of pedestrian deaths in the nation (12.0 per 100,000 pedestrians) as well as high rates of motor vehicle occupant deaths (13.7 per 100,000 people). Louisiana's people also face dire health risk factors, with high proportions of adults who smoke (25.7%) and high rates of obesity among adults and children (33.4 and 21.1%, respectively). The state has among the 10 highest infant mortality rates (7.6 deaths per 1,000 live births) and infant mortality disparity ratios (3.3), which means that the mortality

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	33	D-	34	F
Quality & Patient Safety Environment	41	D	49	F
Medical Liability Environment	17	C	26	C
Public Health & Injury Prevention	51	F	45	F
Disaster Preparedness	3	A	3	B+
OVERALL	36	D+	42	D

rate among non-Hispanic Black infants is more than three times higher than the racial and ethnic group with the lowest rate.

Recommendations. Louisiana should work to improve its *Quality and Patient Safety Environment* by investing in improvements to the EMS system and funding a state EMS medical director. The state should continue efforts to fully implement systems of care for stroke and STEMI patients.

Louisiana must make a concentrated effort to address the poor health risk factors affecting the health and well-being of all through outreach and education aimed at reducing smoking and obesity, as well as measures to improve access to primary and preventive care. A public health commitment to improving traffic safety for motorists, bicyclists, and pedestrians alike is also needed.

The state's poor showing in *Access to Emergency Care* could be improved by a focus on ensuring that Louisiana's denizens have access to adequate health insurance. At the same time, the state must invest in provider recruitment and retention to fill the gaps in access to primary care.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	8.6	
Emergency physicians per 100,000 pop.	13.9	
Neurosurgeons per 100,000 pop.	2.4	
Orthopedists and hand surgeon specialists per 100,000 pop.	10.0	
Plastic surgeons per 100,000 pop.	2.1	
ENT specialists per 100,000 pop.	5.4	
Registered nurses per 100,000 pop.	892.7	
Additional primary care FTEs needed per 100,000 pop.	3.4	
Additional mental health FTEs needed per 100,000 pop.	1.4	
% of children able to see provider	94.3	
Level I or II trauma centers per 1M pop.	0.4	
% of population within 60 minutes of Level I or II trauma center	59.1	
Accredited chest pain centers per 1M pop.	2.2	
% of population with an unmet need for substance abuse treatment	8.7	
Pediatric specialty centers per 1M pop.	6.3	
Physicians accepting Medicare per 100 beneficiaries	2.6	
Medicaid fee levels for office visits as a % of the national average	86.8	
% change in Medicaid fees for office visits (2007 to 2012)	44.6	
% of adults with no health insurance	23.9	
% of adults underinsured	8.6	
% of children with no health insurance	11.6	
% of children underinsured	15.3	
% of adults with Medicaid	10.9	
Emergency departments per 1M pop.	15.9	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	414.2	
Hospital occupancy rate per 100 staffed beds	59.6	
Psychiatric care beds per 100,000 pop.	21.3	
Median minutes from ED arrival to ED departure for admitted patients	266	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		C
Lawyers per 10,000 pop.	15.9	
Lawyers per physician	0.6	
Lawyers per emergency physician	11.4	
ATRA judicial hellholes (range 2 to -6)	-1	
Malpractice award payments/ 100,000 pop.	3.6	
Average malpractice award payments	\$75,882	
Databank reports per 1,000 physicians	55.6	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	Yes	
Number of insurers writing medical liability policies per 1,000 physicians	5.9	
Average medical liability insurance premium for primary care physicians	\$17,358	
Average medical liability insurance premium for specialists	\$65,738	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	Yes	
Periodic payments	Required	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		F
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	25.9	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	No	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	No	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	63.6	
% of hospitals with electronic medical records	87.0	
% of patients with AMI given PCI within 90 minutes of arrival	90	
Median time to transfer to another facility for acute coronary intervention	102	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	30.1	
% of hospitals having or planning to develop a diversity strategy/plan	22.6	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	13.7	
Bicyclist fatalities per 100,000 cyclists	9.8	
Pedestrian fatalities per 100,000 pedestrians	12.0	
% of traffic fatalities alcohol related	38	
Front occupant restraint use (%)	77.7	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	6	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	79.5	
% of adults aged 65+ who received flu vaccine in past year	70.2	
% of adults aged 65+ who ever received pneumococcal vaccine	69.1	
Fatal occupational injuries per 1M workers	54.0	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	24.0	
Unintentional fall-related fatal injuries per 100,000 pop.	4.5	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.6	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.9	
Unintentional poisoning-related fatal injuries per 100,000 pop.	11.4	
Total injury prevention funds per 1,000 pop.	\$80.87	
Dedicated child injury prevention funding	No	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	2	
Infant mortality rate per 1,000 live births	7.6	
Binge alcohol drinkers, % of adults	16.1	
Current smokers, % of adults	25.7	
% of adults with BMI >30	33.4	
% of children obese	21.1	
Cardiovascular disease disparity ratio	1.6	
HIV diagnoses disparity ratio	7.0	
Infant mortality disparity ratio	3.3	
DISASTER PREPAREDNESS		B+
Per capita federal disaster preparedness funds	\$5.24	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.3	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	2066.5	
ICU beds per 1M pop.	354.4	
Burn unit beds per 1M pop.	9.1	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	146.7	
Nurses in ESAR-VHP per 1M pop.	194.9	
Behavioral health professionals in ESAR-VHP per 1M pop.	19.3	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	42.2	

NR = Not reported
N/A = Not applicable

Maine

Maine boasts the third strongest overall emergency care environment in the nation, bolstered by high levels of *Access to Emergency Care*; a dedication to improving the *Quality and Patient Safety Environment*; and low rates of health risk factors and fatal injuries. However, the state's poor *Disaster Preparedness* score indicates that it may not be adequately prepared for large-scale emergencies.

Strengths. Maine continues its stellar performance in *Access to Emergency Care*, with the third highest mark in the nation. Only 11.0% of adults and 6.3% of children in the state have no health insurance. Additionally, only 8.2% of adults report an unmet need for substance abuse treatment. Overall the state's supply of health care providers compares favorably to most states, however gaps remain, including a lack of specialists such as neurosurgeons; plastic surgeons; ear, nose, and throat specialists; and, according to emergency physicians in the state, ophthalmologists and oral surgeons.

Maine has demonstrated a strong commitment to *Public Health and Injury Prevention*, with the fourth highest per capita injury prevention funds in the nation (\$1,232.77 per 1,000 people) and funding that is dedicated to preventing injuries among both children and the elderly. Although Maine has a higher-than-average rate of traffic fatalities, few are alcohol-related, and the state has below-average rates of fatalities among bicyclists (2.7 per 100,000 cyclists) and pedestrians (2.0 per 100,000 pedestrians). In terms of health risk factors, Maine has relatively low rates of adult binge drinking and childhood obesity, although a high proportion of adults smoke cigarettes (22.8%).

Maine's dedication to its *Quality and Patient Safety Environment* has lifted the state to rank among the top 10 in the nation. Maine has dedicated funding for quality improvement within its emergency medical services (EMS) system, as well as an

EMS medical director. It has destination policies in place for stroke, ST-elevation myocardial infarction, and trauma patients. In addition, Maine hospitals are more likely than those in most other states to have adopted computerized practitioner order entry (92.3%) and electronic medical records (97.4%).

Challenges. While Maine has some of the highest rates of physicians and nurses registered in the Emergency System for Advance Registration of Volunteer Health Professionals (97.1 and 662.1 per 1 million people, respectively), the state has implemented very few elements of *Disaster Preparedness* planning at the state level. The state does not have an Emergency Support Function 8 (ESF-8) plan in place and conducts planning for hospital surge only at the regional level. Instead, Maine has three trauma referral centers that are charged with helping regional health care organizations to carry out emergency planning and exercises. While regional-level planning can be robust and effective, particularly

in a rural state, the lack of state-level planning may be problematic in the event of a large disaster or mass casualty event. These challenges could

be alleviated by providing clear guidelines in a medical response plan for addressing special-needs and medication-dependent patients in a disaster.

Maine's *Medical Liability Environment* reflects some positive reforms, although more work could be done. The state has relatively low average medical liability insurance premiums for primary care physicians (\$8,563) and specialists (\$38,035). Of concern is the state's relatively high average malpractice award payment (\$443,372), which is a significant increase since the 2009 Report Card.

While *Access to Emergency Care* fares well overall, emergency physicians in the state report that there are often long waits for psychiatric care beds, especially for children. Some waits in the emergency department are reported to last 8 days.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	2	B+	3	B
Quality & Patient Safety Environment	15	B+	6	B+
Medical Liability Environment	28	D+	21	C
Public Health & Injury Prevention	16	B-	7	A-
Disaster Preparedness	46	D-	49	F
OVERALL	7	C+	3	B-

Recommendations. Maine should consider instituting state-level policies and procedures for *Disaster Preparedness* to provide guidance to, enhance, and support the current regionalized efforts. In particular, a statewide medical communication system with redundancy could help coordinate the emergency responses in the event of a disaster impacting multiple regions. The ability to communicate quickly and securely between responding agencies and units could prove critical to providing quick and appropriate care in the event of a large disaster or mass casualty event.

Maine should work to strengthen its *Medical Liability Environment* by passing additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act (EMTALA) in which providers care for high-risk patients without a preexisting patient relationship and little to no knowledge of a patient's medical history. Instituting liability protections in these cases may attract additional specialists who provide critical on-call services to the emergency department. The state should also consider requiring expert witnesses to be of the same specialty as the defendant and licensed to practice medicine in Maine.

ACCESS TO EMERGENCY CARE B

Board-certified emergency physicians per 100,000 pop.	14.7
Emergency physicians per 100,000 pop.	19.6
Neurosurgeons per 100,000 pop.	1.4
Orthopedists and hand surgeon specialists per 100,000 pop.	10.4
Plastic surgeons per 100,000 pop.	1.4
ENT specialists per 100,000 pop.	2.6
Registered nurses per 100,000 pop.	1114.8
Additional primary care FTEs needed per 100,000 pop.	0.6
Additional mental health FTEs needed per 100,000 pop.	0.3
% of children able to see provider	96.5
Level I or II trauma centers per 1M pop.	2.3
% of population within 60 minutes of Level I or II trauma center	88.6
Accredited chest pain centers per 1M pop.	1.5
% of population with an unmet need for substance abuse treatment	8.2
Pediatric specialty centers per 1M pop.	2.3
Physicians accepting Medicare per 100 beneficiaries	3.1
Medicaid fee levels for office visits as a % of the national average	83.7
% change in Medicaid fees for office visits (2007 to 2012)	38.9
% of adults with no health insurance	11.0
% of adults underinsured	6.1
% of children with no health insurance	6.3
% of children underinsured	18.1
% of adults with Medicaid	19.0
Emergency departments per 1M pop.	28.6
Hospital closures in 2011	0
Staffed inpatient beds per 100,000 pop.	303.6
Hospital occupancy rate per 100 staffed beds	64.4
Psychiatric care beds per 100,000 pop.	29.6
Median minutes from ED arrival to ED departure for admitted patients	281
State collects data on diversion	No

MEDICAL LIABILITY ENVIRONMENT C

Lawyers per 10,000 pop.	12.3
Lawyers per physician	0.4
Lawyers per emergency physician	6.2
ATRA judicial hellholes (range 2 to -6)	0
Malpractice award payments/ 100,000 pop.	1.8
Average malpractice award payments	\$443,372
Databank reports per 1,000 physicians	27.2
Provider apology is inadmissible as evidence	Yes
Patient compensation fund	No
Number of insurers writing medical liability policies per 1,000 physicians	13.2
Average medical liability insurance premium for primary care physicians	\$8,563
Average medical liability insurance premium for specialists	\$38,035
Presence of pretrial screening panels	Mandatory
Pretrial screening panel's findings admissible as evidence	No
Periodic payments	Upon request
Medical liability cap on non-economic damages	\$350,001 -500,000
Additional liability protection for EMTALA-mandated emergency care	No
Joint and several liability abolished	No

Collateral source rule, provides for awards to be offset	Yes
State provides for case certification	No
Expert witness must be of the same specialty as the defendant	No
Expert witness must be licensed to practice medicine in the state	No

QUALITY & PATIENT SAFETY ENVIRONMENT B+

Funding for quality improvement within the EMS system	Yes
Funded state EMS medical director	Yes
Emergency medicine residents per 1M pop.	18.1
Adverse event reporting required	Yes
% of counties with E-911 capability	100.0
Uniform system for providing pre-arrival instructions	Yes
CDC guidelines are basis for state field triage protocols	No
State has or is working on a stroke system of care	No
Triage and destination policy in place for stroke patients	Yes
State has or is working on a PCI network or a STEMI system of care	No
Triage and destination policy in place for STEMI patients	Yes
Statewide trauma registry	No
Triage and destination policy in place for trauma patients	Yes
Prescription drug monitoring program (range 0-4)	2
% of hospitals with computerized practitioner order entry	92.3
% of hospitals with electronic medical records	97.4
% of patients with AMI given PCI within 90 minutes of arrival	96
Median time to transfer to another facility for acute coronary intervention	48
% of patients with AMI who received aspirin within 24 hours	100
% of hospitals collecting data on race/ethnicity and primary language	85.7
% of hospitals having or planning to develop a diversity strategy/plan	50.0

PUBLIC HEALTH & INJURY PREVENTION A-

Traffic fatalities per 100,000 pop.	11.1
Bicyclist fatalities per 100,000 cyclists	2.7
Pedestrian fatalities per 100,000 pedestrians	2.0
% of traffic fatalities alcohol related	29
Front occupant restraint use (%)	81.6
Helmet use required for all motorcycle riders	No
Child safety seat/seat belt legislation (range 0-10)	8
Distracted driving legislation (range 0-4)	2
Graduated drivers' license legislation (range 0-5)	1
% of children immunized, aged 19-35 months	79.1
% of adults aged 65+ who received flu vaccine in past year	61.6
% of adults aged 65+ who ever received pneumococcal vaccine	72.7
Fatal occupational injuries per 1M workers	32.8
Homicides and suicides (non-motor vehicle) per 100,000 pop.	16.4
Unintentional fall-related fatal injuries per 100,000 pop.	6.3
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.8

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1
Unintentional poisoning-related fatal injuries per 100,000 pop.	8.7
Total injury prevention funds per 1,000 pop.	\$1,232.77
Dedicated child injury prevention funding	Yes
Dedicated elderly injury prevention funding	Yes
Dedicated occupational injury prevention funding	No
Gun-purchasing legislation (range 0-6)	1
Anti-smoking legislation (range 0-3)	3
Infant mortality rate per 1,000 live births	5.4
Binge alcohol drinkers, % of adults	17.3
Current smokers, % of adults	22.8
% of adults with BMI >30	27.8
% of children obese	12.5
Cardiovascular disease disparity ratio	2.2
HIV diagnoses disparity ratio	20.3
Infant mortality disparity ratio	NR

DISASTER PREPAREDNESS F

Per capita federal disaster preparedness funds	\$9.67
State budget line item for health care surge	No
ESF-8 plan shared with all EMS and essential hospital personnel	No State ESF-8 plan
Emergency physician input into the state planning process	No
Public health and emergency physician input during an ESF-8 response	Yes, No
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.5
Accredited by the Emergency Management Accreditation Program	No
Special needs patients in medical response plan	No
Patients on medication for chronic conditions in medical response plan	No
Medical response plan for supplying dialysis	No
Mental health patients in medical response plan	No
Medical response plan for supplying psychotropic medication	No
Mutual aid agreements with behavioral health providers	State-level
Long-term care and nursing home facilities must have written disaster plan	Yes
State able to report number of exercises with long-term care or nursing home facilities	Yes
"Just-in-time" training	Across coalitions
Statewide medical communication system with one layer of redundancy	No
Statewide patient tracking system	No
Statewide real-time or near real-time syndromic surveillance system	Yes
Real-time surveillance system in place for common ED presentations	In metro areas
Bed surge capacity per 1M pop.	1026.9
ICU beds per 1M pop.	261.8
Burn unit beds per 1M pop.	4.5
Verified burn centers per 1M pop.	0.0
Physicians in ESAR-VHP per 1M pop.	97.1
Nurses in ESAR-VHP per 1M pop.	662.1
Behavioral health professionals in ESAR-VHP per 1M pop.	13.5
Strike teams or medical assistance teams	Yes
Disaster training required for essential hospital, EMS personnel	No
Liability protections for health care workers during a disaster (range 0-4)	NR
% of RNs received disaster training	37.6

NR = Not reported
N/A = Not applicable

Maryland

Maryland has a statewide model of emergency care. The high grades in *Quality and Patient Safety Environment*, *Public Health and Injury Prevention*, and *Disaster Preparedness* reflect a relentless commitment to these areas. However, the state has not kept pace with other states regarding medical liability reform and faces some hospital capacity shortages.

Strengths. Maryland has the highest *Quality and Patient Safety Environment* ranking in the nation. The state has enacted multiple policies and procedures to ensure that its patients receive swift and effective care, including triage and destination policies for trauma, stroke, and ST-elevation myocardial infarction (STEMI) patients. Maryland maintains a statewide trauma registry, and nearly all its hospitals have adopted computerized practitioner order entry (93.9%) and electronic medical records (95.9%). To ensure that the state's diverse population receives quality care, more than half its hospitals have or are planning for a diversity strategy, and 60.9% collect data on patient race and ethnicity and primary language. Finally, Maryland has made a financial commitment to quality and patient safety, with dedicated funds for a state emergency medical services (EMS) medical director and for quality improvement in the EMS system.

Maryland is 10th in the nation in *Disaster Preparedness* and has incorporated many important state-level policies and procedures. The state has developed medical response plans that address the requirements of special needs patients and patients dependent on medication. Maryland's just-in-time training systems are in place statewide, and almost 40% of the state's registered nurses have received disaster training. Maryland's statewide patient tracking system and surveillance system

for common emergency department (ED) presentations help ensure that the state is able to identify and respond to evolving disasters.

Maryland also rates highly in *Public Health and Injury Prevention* due to strong legislation aimed at improving public health and traffic safety, such as banning all smoking in bars, restaurants, and worksites; distracted driving bans; and child safety seat and seat belt legislation. The state also benefits from low rates of unintentional injury. Maryland has the lowest rate of poisoning deaths, which include drug overdoses, in the nation.

Challenges. Maryland has not, however, kept pace with developments in the *Medical Liability Environment*, slipping to 47th in the nation. Although the state has implemented some needed medical liability reforms, such as a cap on non-economic damages and pretrial screening panels, it has relatively high average malpractice awards (\$374,121) and a high per capita number of malpractice award payments (3.4 per 100,000 people). Maryland has one of the highest average medical liability insurance premiums for specialists at \$96,807, more than 1.7 times the national average, and a relatively high average medical liability insurance premium for primary care physicians (\$18,089).

In *Access to Emergency Care*, there are signs that Maryland's emergency medicine infrastructure is

strained. The state has one of the longest median ED wait times (367 minutes from ED arrival to departure for admitted patients) and a high hospital occupancy rate (74.7 per 100 staffed beds). Maryland also has few EDs per capita (8.3 per 1 million people), despite relatively high rates of emergency physicians.

Maryland should support efforts to increase capacity for emergency care and alleviate crowding in the emergency department.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	25	C-	23	D
Quality & Patient Safety Environment	2	A	1	A
Medical Liability Environment	39	D-	47	F
Public Health & Injury Prevention	11	B	9	B+
Disaster Preparedness	2	A	10	B-
OVERALL	4	B-	10	C

Recommendations. Maryland would benefit most from reforms aimed at lowering the state's high medical liability insurance rates and malpractice awards. Adopting structured settlements would better match the award to the ongoing needs of the plaintiff. Collateral source rule reform would help to ensure that plaintiffs are not doubly compensated and be advantageous to the state. Strengthening the state's currently weak apology law would protect physician apologies from being admissible in liability cases.

Maryland should support efforts to increase capacity for emergency care and alleviate crowding in EDs. A failure to address this growing issue may result in loss of quality of care and poor health outcomes for patients.

Although Maryland fared well in *Public Health and Injury Prevention* overall, the state lags in some traffic safety indicators. Maryland must work to reduce its high proportion of traffic fatalities that are alcohol-related (40.0%) and high rates of bicyclist and pedestrian fatalities. Maryland should concentrate on ensuring the safety of all road users, educating drivers on the dangers of drinking and driving.

ACCESS TO EMERGENCY CARE D

Board-certified emergency physicians per 100,000 pop.	12.7
Emergency physicians per 100,000 pop.	15.1
Neurosurgeons per 100,000 pop.	2.9
Orthopedists and hand surgeon specialists per 100,000 pop.	12.0
Plastic surgeons per 100,000 pop.	3.3
ENT specialists per 100,000 pop.	4.9
Registered nurses per 100,000 pop.	849.7
Additional primary care FTEs needed per 100,000 pop.	2.8
Additional mental health FTEs needed per 100,000 pop.	0.5
% of children able to see provider	95.8
Level I or II trauma centers per 1M pop.	0.7
% of population within 60 minutes of Level I or II trauma center	99.3
Accredited chest pain centers per 1M pop.	1.5
% of population with an unmet need for substance abuse treatment	7.9
Pediatric specialty centers per 1M pop.	2.7
Physicians accepting Medicare per 100 beneficiaries	3.1
Medicaid fee levels for office visits as a % of the national average	99.4
% change in Medicaid fees for office visits (2007 to 2012)	5.7
% of adults with no health insurance	15.0
% of adults underinsured	6.5
% of children with no health insurance	10.0
% of children underinsured	17.4
% of adults with Medicaid	7.5
Emergency departments per 1M pop.	8.3
Hospital closures in 2011	0
Staffed inpatient beds per 100,000 pop.	270.1
Hospital occupancy rate per 100 staffed beds	74.7
Psychiatric care beds per 100,000 pop.	29.4
Median minutes from ED arrival to ED departure for admitted patients	367
State collects data on diversion	Yes

MEDICAL LIABILITY ENVIRONMENT F

Lawyers per 10,000 pop.	18.7
Lawyers per physician	0.4
Lawyers per emergency physician	12.4
ATRA judicial hellholes (range 2 to -6)	-3
Malpractice award payments/ 100,000 pop.	3.4
Average malpractice award payments	\$374,121
Databank reports per 1,000 physicians	27.6
Provider apology is inadmissible as evidence	Yes
Patient compensation fund	No
Number of insurers writing medical liability policies per 1,000 physicians	3.8
Average medical liability insurance premium for primary care physicians	\$18,089
Average medical liability insurance premium for specialists	\$96,807
Presence of pretrial screening panels	Mandatory
Pretrial screening panel's findings admissible as evidence	No
Periodic payments	At court's discretion
Medical liability cap on non-economic damages	>\$500,000
Additional liability protection for EMTALA-mandated emergency care	No
Joint and several liability abolished	No

Collateral source rule, provides for awards to be offset	No
State provides for case certification	Yes
Expert witness must be of the same specialty as the defendant	No
Expert witness must be licensed to practice medicine in the state	No

QUALITY & PATIENT SAFETY ENVIRONMENT A

Funding for quality improvement within the EMS system	Yes
Funded state EMS medical director	Yes
Emergency medicine residents per 1M pop.	14.1
Adverse event reporting required	Yes
% of counties with E-911 capability	100.0
Uniform system for providing pre-arrival instructions	Yes
CDC guidelines are basis for state field triage protocols	Yes (2011)
State has or is working on a stroke system of care	Yes
Triage and destination policy in place for stroke patients	Yes
State has or is working on a PCI network or a STEMI system of care	Yes
Triage and destination policy in place for STEMI patients	Yes
Statewide trauma registry	Yes
Triage and destination policy in place for trauma patients	Yes
Prescription drug monitoring program (range 0-4)	2
% of hospitals with computerized practitioner order entry	93.9
% of hospitals with electronic medical records	95.9
% of patients with AMI given PCI within 90 minutes of arrival	91
Median time to transfer to another facility for acute coronary intervention	NR
% of patients with AMI who received aspirin within 24 hours	99
% of hospitals collecting data on race/ethnicity and primary language	60.9
% of hospitals having or planning to develop a diversity strategy/plan	53.6

PUBLIC HEALTH & INJURY PREVENTION B+

Traffic fatalities per 100,000 pop.	6.6
Bicyclist fatalities per 100,000 cyclists	4.9
Pedestrian fatalities per 100,000 pedestrians	8.1
% of traffic fatalities alcohol related	40
Front occupant restraint use (%)	94.2
Helmet use required for all motorcycle riders	Yes
Child safety seat/seat belt legislation (range 0-10)	8
Distracted driving legislation (range 0-4)	4
Graduated drivers' license legislation (range 0-5)	1
% of children immunized, aged 19-35 months	81.1
% of adults aged 65+ who received flu vaccine in past year	62.8
% of adults aged 65+ who ever received pneumococcal vaccine	69.9
Fatal occupational injuries per 1M workers	22.6
Homicides and suicides (non-motor vehicle) per 100,000 pop.	17.3
Unintentional fall-related fatal injuries per 100,000 pop.	7.8
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.0

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1
Unintentional poisoning-related fatal injuries per 100,000 pop.	2.1
Total injury prevention funds per 1,000 pop.	\$281.39
Dedicated child injury prevention funding	Yes
Dedicated elderly injury prevention funding	No
Dedicated occupational injury prevention funding	No
Gun-purchasing legislation (range 0-6)	3
Anti-smoking legislation (range 0-3)	3
Infant mortality rate per 1,000 live births	6.8
Binge alcohol drinkers, % of adults	18.0
Current smokers, % of adults	19.1
% of adults with BMI >30	28.3
% of children obese	15.1
Cardiovascular disease disparity ratio	1.9
HIV diagnoses disparity ratio	NR
Infant mortality disparity ratio	2.8

DISASTER PREPAREDNESS B-

Per capita federal disaster preparedness funds	\$6.20
State budget line item for health care surge	No
ESF-8 plan shared with all EMS and essential hospital personnel	Yes
Emergency physician input into the state planning process	Yes
Public health and emergency physician input during an ESF-8 response	Yes
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	1.3
Accredited by the Emergency Management Accreditation Program	Yes
Special needs patients in medical response plan	Yes
Patients on medication for chronic conditions in medical response plan	Yes
Medical response plan for supplying dialysis	Yes
Mental health patients in medical response plan	Yes
Medical response plan for supplying psychotropic medication	Yes
Mutual aid agreements with behavioral health providers	State-level
Long-term care and nursing home facilities must have written disaster plan	Yes
State able to report number of exercises with long-term care or nursing home facilities	Yes
"Just-in-time" training systems in place	Statewide
Statewide medical communication system with one layer of redundancy	Yes
Statewide patient tracking system	Yes
Statewide real-time or near real-time syndromic surveillance system	Yes
Real-time surveillance system in place for common ED presentations	Statewide
Bed surge capacity per 1M pop.	537.5
ICU beds per 1M pop.	255.6
Burn unit beds per 1M pop.	3.4
Verified burn centers per 1M pop.	0.2
Physicians in ESAR-VHP per 1M pop.	47.8
Nurses in ESAR-VHP per 1M pop.	165.2
Behavioral health professionals in ESAR-VHP per 1M pop.	29.6
Strike teams or medical assistance teams	Yes
Disaster training required for essential hospital, EMS personnel	NR
Liability protections for health care workers during a disaster (range 0-4)	4
% of RNs received disaster training	39.2

NR = Not reported
N/A = Not applicable

Massachusetts

Massachusetts is the second highest ranked state in the nation for its overall emergency medical care system, with a statewide commitment to *Access to Emergency Care*, *Public Health and Injury Prevention*, and the *Quality and Patient Safety Environment*. However, Massachusetts continues to lag behind other states with regard to its *Medical Liability Environment* and has not improved in *Disaster Preparedness*.

Strengths. Massachusetts ranks first in the nation in *Public Health and Injury Prevention*, bolstered by dedicated funding for injury prevention efforts for both children and the elderly as well as low rates of fatal injuries. Notably, Massachusetts has the lowest rate of homicide and suicide (11.2 per 100,000 people) in the nation and one of the lowest rates of fire- and burn-related deaths (0.5 per 100,000). The state has high rates of vaccinations for both children and older adults and low rates of chronic disease risk factors among adults, such as smoking (18.2%) and obesity (22.7%).

The *Quality and Patient Safety Environment* in Massachusetts continues to surpass most other states. Massachusetts maintains a statewide trauma registry and has triage and destination policies in place for trauma, stroke, and ST-elevation myocardial infarction (STEMI) patients, which allow emergency medical services teams to bypass local hospitals for medical specialty centers.

The state has also developed and implemented state field triage protocols based on CDC guidelines and maintains a prescription drug monitoring program (PDMP) that monitors schedule II-V drugs. As PDMP regulations are finalized, the state should continue to ensure that emergency providers are not burdened by a mandate to check the program when it is not clinically indicated.

Massachusetts patients enjoy good *Access to Emergency Care*. The state has high per capita rates of specialists, emergency physicians, and registered nurses, as well as the

lowest rates of adults and children with no health insurance (3.6% and 2.5%, respectively), largely due to its health insurance mandate. Massachusetts has a high rate of Medicare fee-for-service physicians (4.1 per 100 beneficiaries) and the need for additional primary care and mental health providers is less than in most states. The state's Medicaid fee levels are slightly higher than the national average (107.1%).

Challenges. Massachusetts' *Medical Liability Environment* lags behind the rest of the country, with relatively few liability reforms in place and one of the highest average malpractice award payments in the country at \$519,991—more than \$200,000 higher than the national average. There have been small advances in this area in recent years. Massachusetts included apology inadmissibility language in the state's new health care reform law, and the state developed a demonstration project to examine the benefits of a "Disclosure, Apology and Offer" system for early resolution of medical malpractice claims. Massachusetts must continue to build on these efforts to bring the state's excessive medical malpractice awards more in line with national averages.

In *Access to Emergency Care*, Massachusetts still has a relatively high proportion of adults with an unmet need for substance abuse treatment (9.9%), although the state is working on addressing this gap. Stakeholders have worked to improve the

response to all behavioral health patients, including those patients with substance abuse and dual diagnoses. This includes working to see that insurers eliminate pre-authorization screening to ensure that these patients are treated the way other patients are treated. The state should work to stem the reduction in the number of psychiatric beds per capita that has occurred over the past five years.

Recommendations. Massachusetts must work to improve its *Medical Liability Environment*. One particularly important reform would be passing additional liability

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	3	B	4	B
Quality & Patient Safety Environment	6	A	5	B+
Medical Liability Environment	33	D	40	D-
Public Health & Injury Prevention	1	A	1	A
Disaster Preparedness	19	B	20	C
OVERALL	1	B	2	B-

protection for Emergency Medical Treatment and Labor Act-mandated emergency care. Massachusetts' policymakers should also closely monitor the effectiveness of the state's new "Disclosure, Apology, and Offer" demonstration project as part of an ongoing effort to identify, adopt, and expand meaningful reforms that can help contain high costs associated with medical malpractice litigation and further support the provision of quality patient care.

Massachusetts scores relatively well in *Disaster Preparedness*, but it has one of the lowest bed surge capacities in the nation (248.6 beds for every 1 million people). Massachusetts also has a relatively low capacity of intensive care unit beds (248.4 per 1 million people). Similarly, while Massachusetts has overall superior *Access to Emergency Care*, the relative lack of emergency departments (ED) (9.6 per 1 million) and high hospital occupancy rate (75.0 per 100 staffed beds) point to an overwhelmed emergency care infrastructure. This is reflected in long ED wait times (311 minutes from ED arrival to ED departure for admitted patients) that are higher than the national average. Massachusetts should work to increase hospital capacity to ensure that admirable levels of timely, high-quality care can continue to be provided throughout the state.

Massachusetts should work to increase hospital capacity.

ACCESS TO EMERGENCY CARE		B
Board-certified emergency physicians per 100,000 pop.	14.2	
Emergency physicians per 100,000 pop.	19.7	
Neurosurgeons per 100,000 pop.	2.6	
Orthopedists and hand surgeon specialists per 100,000 pop.	12.7	
Plastic surgeons per 100,000 pop.	3.3	
ENT specialists per 100,000 pop.	4.2	
Registered nurses per 100,000 pop.	1317.4	
Additional primary care FTEs needed per 100,000 pop.	0.7	
Additional mental health FTEs needed per 100,000 pop.	0.3	
% of children able to see provider	97.3	
Level I or II trauma centers per 1M pop.	1.4	
% of population within 60 minutes of Level I or II trauma center	99.0	
Accredited chest pain centers per 1M pop.	0.2	
% of population with an unmet need for substance abuse treatment	9.9	
Pediatric specialty centers per 1M pop.	2.1	
Physicians accepting Medicare per 100 beneficiaries	4.1	
Medicaid fee levels for office visits as a % of the national average	107.1	
% change in Medicaid fees for office visits (2007 to 2012)	17.8	
% of adults with no health insurance	3.6	
% of adults underinsured	6.9	
% of children with no health insurance	2.5	
% of children underinsured	17.5	
% of adults with Medicaid	17.7	
Emergency departments per 1M pop.	9.6	
Hospital closures in 2011	1	
Staffed inpatient beds per 100,000 pop.	321.2	
Hospital occupancy rate per 100 staffed beds	75.0	
Psychiatric care beds per 100,000 pop.	27.4	
Median minutes from ED arrival to ED departure for admitted patients	311	
State collects data on diversion	N/A	
MEDICAL LIABILITY ENVIRONMENT		D-
Lawyers per 10,000 pop.	24.5	
Lawyers per physician	0.5	
Lawyers per emergency physician	12.4	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.4	
Average malpractice award payments	\$519,991	
Databank reports per 1,000 physicians	17.3	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	2.4	
Average medical liability insurance premium for primary care physicians	\$15,235	
Average medical liability insurance premium for specialists	\$77,658	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	Yes	
Periodic payments	No	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		B+
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	33.1	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	92.7	
% of hospitals with electronic medical records	97.6	
% of patients with AMI given PCI within 90 minutes of arrival	95	
Median time to transfer to another facility for acute coronary intervention	59	
% of patients with AMI who received aspirin within 24 hours	100	
% of hospitals collecting data on race/ethnicity and primary language	52.3	
% of hospitals having or planning to develop a diversity strategy/plan	46.8	
PUBLIC HEALTH & INJURY PREVENTION		A
Traffic fatalities per 100,000 pop.	3.8	
Bicyclist fatalities per 100,000 cyclists	1.9	
Pedestrian fatalities per 100,000 pedestrians	2.1	
% of traffic fatalities alcohol related	39	
Front occupant restraint use (%)	73.2	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	5	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	80.3	
% of adults aged 65+ who received flu vaccine in past year	66.9	
% of adults aged 65+ who ever received pneumococcal vaccine	72.2	
Fatal occupational injuries per 1M workers	16.5	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	11.2	
Unintentional fall-related fatal injuries per 100,000 pop.	7.9	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.5	

Unintentional firearm-related fatal injuries per 100,000 pop.	< 0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	10.5	
Total injury prevention funds per 1,000 pop.	\$2,950.94	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	4	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	4.4	
Binge alcohol drinkers, % of adults	20.6	
Current smokers, % of adults	18.2	
% of adults with BMI >30	22.7	
% of children obese	14.5	
Cardiovascular disease disparity ratio	2.5	
HIV diagnoses disparity ratio	NR	
Infant mortality disparity ratio	2.7	
DISASTER PREPAREDNESS		C
Per capita federal disaster preparedness funds	\$6.54	
State budget line item for health care surge	NR	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.2	
Accredited by the Emergency Management Accreditation Program	Conditionally	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	In metro areas	
Bed surge capacity per 1M pop.	248.6	
ICU beds per 1M pop.	248.4	
Burn unit beds per 1M pop.	10.5	
Verified burn centers per 1M pop.	0.5	
Physicians in ESAR-VHP per 1M pop.	87.6	
Nurses in ESAR-VHP per 1M pop.	537.2	
Behavioral health professionals in ESAR-VHP per 1M pop.	50.9	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No, Yes	
Liability protections for health care workers during a disaster (range 0-4)	1	
% of RNs received disaster training	35.4	

NR = Not reported
N/A = Not applicable



Michigan

Michigan has made extensive improvements in its *Quality and Patient Safety Environment*, implementing key policies and practices to improve the timeliness of emergency care. However, the state's weak *Medical Liability Environment* and issues with adequate hospital capacity continue to hamper progress in improving the overall emergency care environment.

Strengths. Michigan has worked to improve its *Quality and Patient Safety Environment* over the past 5 years. The state has implemented a statewide trauma registry. The vast majority of the state's hospitals have adopted computerized practitioner order entry (91.1%) and electronic medical records (97.5%). Michigan has also begun the process of implementing overall trauma system and destination protocols and is developing administrative rules that will address verification and designation of STEMI and stroke centers, along with triage criteria and destination protocols.

While Michigan has fallen further behind other states in *Disaster Preparedness*, it maintains a number of policies and procedures to ensure that it can mount a coordinated and effective disaster response. The state has conducted many drills and exercises involving hospitals (4.5 per hospital in 2011) and tracks exercises involving long-term care and nursing home facilities.

Special needs patients, patients dependent on dialysis, and mental health patients are included in Michigan's medical response plan, and there is a statewide patient tracking system in place. The state is accredited by the Emergency Management Accreditation Program and has moderate levels of health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals. In terms of hospital capacity, Michigan has better than average access to burn centers and burn unit beds, although its bed surge capacity is relatively low, compared with the rest of the nation.

Michigan must work to improve access to emergency care by reducing financial barriers to care.

Challenges. Michigan's main challenge is ensuring *Access to Emergency Care*. Although the state has high per capita rates of emergency physicians, it has below average rates of specialists, such as orthopedists and hand surgeons; plastic surgeons; and ear, nose, and throat specialists. There is also concern that Michigan lacks an adequate supply of psychiatric care beds (21.5 per 100,000 people) and staffed inpatient beds (286.9 per 100,000 people). In addition, financial barriers to care may impede access to preventive and emergency care, with a high proportion of adults reporting that they delayed or declined care due to cost (9.3%). Michigan's Medicaid fee levels for office visits are also among the lowest in the nation, at 60.5% of the national average.

In *Public Health and Injury Prevention*, Michigan falls below average on many indicators, and some worrying numbers stand out: Michigan ranks among the worst in the nation for adult obesity (31.3%) and a relatively high proportion of adults currently smoke (23.3%). The state has one of the lowest rates of pneumonia vaccination among older adults (67.1%). The proportion of older adults receiving an annual influenza vaccination has decreased significantly since the last Report Card, from 71.3% to 58.0%, which may also indicate financial barriers to care.

Recommendations. Michigan should continue to strengthen its *Medical Liability Environment*, particularly by passing additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act (EMTALA), such as those requiring clear and convincing evidence of gross negligence, as has been proposed in legislation in recent years. This will help ensure access to emergency care, especially the availability of on-call specialists, which is a major concern in the state. Other potential reforms include abolishing joint and several liability and establishing pretrial screening panels to discourage unfounded lawsuits.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	37	D-	32	F
Quality & Patient Safety Environment	47	D-	33	C-
Medical Liability Environment	41	D-	33	D
Public Health & Injury Prevention	21	C	27	D+
Disaster Preparedness	12	B+	25	C-
OVERALL	43	D+	46	D

Michigan must work to improve *Access to Emergency Care* by reducing financial barriers to care and increasing its capacity to care for high-risk patients. The state would also benefit from a concerted immunization outreach and education effort, especially for its older population.

In April 2012, a new law went into effect in Michigan allowing motorcycle riders 21 years of age and older to ride without a helmet. Subsequently, a report from the Governors' Highway Safety Association showed a substantial increase in motorcycle fatalities during the first 9 months of 2012. In addition to the significantly heightened risk of fatal and serious injury associated with repeal of the state's all-rider helmet law, the new law requires helmetless riders to maintain only \$20,000 in medical insurance, leaving injured motorcyclists and their families vulnerable to uncovered medical bills. While reinstatement of the all-rider helmet law should be a priority, the state should take steps to ensure that helmetless motorcyclists have adequate insurance to cover treatment of significant injuries and to ensure access to care. Similar attention should be paid to maintaining the state's no-fault automobile insurance provisions that do not limit medical coverage for those severely injured in automobile crashes.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	13.8	
Emergency physicians per 100,000 pop.	17.8	
Neurosurgeons per 100,000 pop.	1.9	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.0	
Plastic surgeons per 100,000 pop.	2.1	
ENT specialists per 100,000 pop.	3.2	
Registered nurses per 100,000 pop.	907.9	
Additional primary care FTEs needed per 100,000 pop.	2.1	
Additional mental health FTEs needed per 100,000 pop.	0.6	
% of children able to see provider	95.3	
Level I or II trauma centers per 1M pop.	2.2	
% of population within 60 minutes of Level I or II trauma center	91.7	
Accredited chest pain centers per 1M pop.	1.7	
% of population with an unmet need for substance abuse treatment	9.1	
Pediatric specialty centers per 1M pop.	2.1	
Physicians accepting Medicare per 100 beneficiaries	3.0	
Medicaid fee levels for office visits as a % of the national average	60.5	
% change in Medicaid fees for office visits (2007 to 2012)	-7.0	
% of adults with no health insurance	14.7	
% of adults underinsured	9.3	
% of children with no health insurance	5.4	
% of children underinsured	16.9	
% of adults with Medicaid	11.9	
Emergency departments per 1M pop.	13.4	
Hospital closures in 2011	1	
Staffed inpatient beds per 100,000 pop.	286.9	
Hospital occupancy rate per 100 staffed beds	66.8	
Psychiatric care beds per 100,000 pop.	21.5	
Median minutes from ED arrival to ED departure for admitted patients	291	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		D
Lawyers per 10,000 pop.	13.9	
Lawyers per physician	0.5	
Lawyers per emergency physician	7.8	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	2.6	
Average malpractice award payments	\$184,095	
Databank reports per 1,000 physicians	21.8	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	3.2	
Average medical liability insurance premium for primary care physicians	\$20,233	
Average medical liability insurance premium for specialists	\$65,941	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	No	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C-
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	66.2	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	No	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	91.1	
% of hospitals with electronic medical records	97.5	
% of patients with AMI given PCI within 90 minutes of arrival	93	
Median time to transfer to another facility for acute coronary intervention	55	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	66.7	
% of hospitals having or planning to develop a diversity strategy/plan	58.0	
PUBLIC HEALTH & INJURY PREVENTION		D+
Traffic fatalities per 100,000 pop.	7.8	
Bicyclist fatalities per 100,000 cyclists	4.8	
Pedestrian fatalities per 100,000 pedestrians	5.2	
% of traffic fatalities alcohol related	33	
Front occupant restraint use (%)	94.5	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	7	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	76.4	
% of adults aged 65+ who received flu vaccine in past year	58.0	
% of adults aged 65+ who ever received pneumococcal vaccine	67.1	
Fatal occupational injuries per 1M workers	30.5	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	18.6	
Unintentional fall-related fatal injuries per 100,000 pop.	8.5	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.2	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	10.7	
Total injury prevention funds per 1,000 pop.	\$248.11	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	3.5	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	7.1	
Binge alcohol drinkers, % of adults	19.7	
Current smokers, % of adults	23.3	
% of adults with BMI >30	31.3	
% of children obese	14.8	
Cardiovascular disease disparity ratio	1.8	
HIV diagnoses disparity ratio	17.2	
Infant mortality disparity ratio	2.8	
DISASTER PREPAREDNESS		C-
Per capita federal disaster preparedness funds	\$4.75	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	4.5	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training	Across coalitions	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	578.1	
ICU beds per 1M pop.	279.8	
Burn unit beds per 1M pop.	8.0	
Verified burn centers per 1M pop.	0.3	
Physicians in ESAR-VHP per 1M pop.	20.0	
Nurses in ESAR-VHP per 1M pop.	201.8	
Behavioral health professionals in ESAR-VHP per 1M pop.	35.2	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	2	
% of RNs received disaster training	33.1	

NR = Not reported
N/A = Not applicable

Minnesota

Minnesota's commitment to *Public Health and Injury Prevention* is reflected in low fatal injury rates and a fairly healthy population. Additionally, its citizens enjoy comparatively good access to physicians and medical facilities. However, Minnesota has fallen behind in putting uniform policies and practices in place for promoting quick and effective response to emergencies both during disasters and in everyday situations.

Strengths. Minnesota continues to rank among the top performing states in *Public Health and Injury Prevention*, with a demonstrated commitment to injury prevention funding for children and the elderly and a high level of overall funding (\$485.48 per 1,000 people). It has very low rates of homicides and suicides; fire- and burn-related deaths; and poisoning-related deaths, which include drug overdoses. Minnesota's only poor rating is its rate of fall-related deaths (14.8 per 100,000 people), which is significantly higher than the national average (9.5 per 100,000 people). The state has relatively high rates of immunizations among both older adults and children and one of the lowest infant mortality rates in the nation (4.5 deaths per 1,000 births).

Minnesota has improved its *Access to Emergency Care* ranking since the previous Report Card and boasts the highest per capita rate of physicians accepting Medicare in the nation (5.5 for every 100 beneficiaries). The state has relatively high Medicaid fee levels for office visits (112.1% of the national average). Minnesota fares well with low proportions of adults with no health insurance (10.1%) and inadequate insurance (6.5%) and a fairly low proportion of children with no health insurance (6.4%). There are some insurance gaps, however, as the state's children have the highest rate of underinsurance in the nation (23.2%). Minnesota has fair per capita rates of specialists and certain facilities, such as emergency departments and level I and II trauma centers, but has exceedingly low rates of accredited chest pain centers.

Challenges. Minnesota's ranking in the *Quality and Patient Safety Environment* fell substantially, in part due to a lack of state-wide policies and procedures for enhancing emergency medical services (EMS) systems. The state did not report funding for a state EMS medical director position. Minnesota also lacks a uniform system for providing pre-arrival instructions that could offer an opportunity to provide life-saving care, and it does not have state field triage protocols in place. It has, however, increased the number of emergency medicine residents to be close to the national average and has been working on a percutaneous coronary intervention (PCI) network or ST-elevation myocardial infarction (STEMI) system of care.

The strength of Minnesota's *Disaster Preparedness* planning has also slipped compared with other states. Minnesota has particularly strong systems in place to ensure an adequately trained medical response, with just-in-time training systems in place statewide and a high percentage of nurses who have received disaster training (48.2%). However, Minnesota's medical response plan does not specifically address patients dependent on medication for chronic conditions, patients dependent on dialysis, patients on psychotropic medication, and mental health patients. Despite a high bed surge capacity (1428.1 per 1 million people) and availability of burn unit beds (11.2 per 1 million people), Minnesota has a very low number of ICU beds available in the event of a disaster (226.4 per 1 million people).

Recommendations. Minnesota should work to further enhance its safeguards for quality and patient safety in its emergency care system by exploring destination policies to ensure that stroke and STEMI patients are triaged to the most appropriate medical facilities. Adopting other state-level standards, such as field triage protocols and uniform systems for providing

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	20	C	15	C-
Quality & Patient Safety Environment	19	B-	40	D
Medical Liability Environment	26	C-	13	B-
Public Health & Injury Prevention	10	B	6	A-
Disaster Preparedness	7	A-	28	C-
OVERALL	6	C+	12	C

pre-arrival instructions, would also improve the overall environment.

Minnesota's *Medical Liability Environment* could be stronger. While the state has the second lowest medical liability insurance premiums for primary care physicians (\$4,202) and specialists (\$16,674), it lacks some needed liability protections for health care providers. The state does not have a cap on non-economic damages, which may help reduce what are some of the highest average malpractice award payments in the nation (\$584,175). Minnesota should also protect its emergency care providers with additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act.

Minnesota should explore its high rates of binge drinking and lack of access to substance abuse treatment and ensure that there are systems and processes in place for education, outreach, and treatment. The state should also take note of the few psychiatric care beds available (17.7 per 100,000 people) and work to fill the gap in mental health providers (0.5 full-time providers needed per 100,000 people), which may alleviate emergency department boarding of mental health patients.

ACCESS TO EMERGENCY CARE		C-
Board-certified emergency physicians per 100,000 pop.	9.1	
Emergency physicians per 100,000 pop.	13.3	
Neurosurgeons per 100,000 pop.	2.0	
Orthopedists and hand surgeon specialists per 100,000 pop.	11.6	
Plastic surgeons per 100,000 pop.	1.9	
ENT specialists per 100,000 pop.	3.5	
Registered nurses per 100,000 pop.	1059.6	
Additional primary care FTEs needed per 100,000 pop.	0.9	
Additional mental health FTEs needed per 100,000 pop.	0.5	
% of children able to see provider	97.0	
Level I or II trauma centers per 1M pop.	1.7	
% of population within 60 minutes of Level I or II trauma center	89.9	
Accredited chest pain centers per 1M pop.	0.6	
% of population with an unmet need for substance abuse treatment	10.1	
Pediatric specialty centers per 1M pop.	2.2	
Physicians accepting Medicare per 100 beneficiaries	5.5	
Medicaid fee levels for office visits as a % of the national average	112.1	
% change in Medicaid fees for office visits (2007 to 2012)	101.3	
% of adults with no health insurance	10.1	
% of adults underinsured	6.5	
% of children with no health insurance	6.4	
% of children underinsured	23.2	
% of adults with Medicaid	10.7	
Emergency departments per 1M pop.	17.7	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	301.5	
Hospital occupancy rate per 100 staffed beds	66.2	
Psychiatric care beds per 100,000 pop.	17.7	
Median minutes from ED arrival to ED departure for admitted patients	202	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B-
Lawyers per 10,000 pop.	18.1	
Lawyers per physician	0.6	
Lawyers per emergency physician	13.7	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	0.9	
Average malpractice award payments	\$584,175	
Databank reports per 1,000 physicians	8.2	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	4.4	
Average medical liability insurance premium for primary care physicians	\$4,202	
Average medical liability insurance premium for specialists	\$16,674	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		D
Funding for quality improvement within the EMS system	NR	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	16.2	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No protocols	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	No	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	86.8	
% of hospitals with electronic medical records	97.8	
% of patients with AMI given PCI within 90 minutes of arrival	94	
Median time to transfer to another facility for acute coronary intervention	54	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	58.8	
% of hospitals having or planning to develop a diversity strategy/plan	41.9	
PUBLIC HEALTH & INJURY PREVENTION		A-
Traffic fatalities per 100,000 pop.	6.9	
Bicyclist fatalities per 100,000 cyclists	2.2	
Pedestrian fatalities per 100,000 pedestrians	2.1	
% of traffic fatalities alcohol related	36	
Front occupant restraint use (%)	92.7	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	79.0	
% of adults aged 65+ who received flu vaccine in past year	63.6	
% of adults aged 65+ who ever received pneumococcal vaccine	74.2	
Fatal occupational injuries per 1M workers	21.7	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	13.4	
Unintentional fall-related fatal injuries per 100,000 pop.	14.8	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.6	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	6.7	
Total injury prevention funds per 1,000 pop.	\$485.48	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	1	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	4.5	
Binge alcohol drinkers, % of adults	22.1	
Current smokers, % of adults	19.1	
% of adults with BMI >30	25.7	
% of children obese	14.0	
Cardiovascular disease disparity ratio	2.6	
HIV diagnoses disparity ratio	14.9	
Infant mortality disparity ratio	2.4	
DISASTER PREPAREDNESS		C-
Per capita federal disaster preparedness funds	\$5.56	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	10.8	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	1428.1	
ICU beds per 1M pop.	226.4	
Burn unit beds per 1M pop.	11.2	
Verified burn centers per 1M pop.	0.4	
Physicians in ESAR-VHP per 1M pop.	22.1	
Nurses in ESAR-VHP per 1M pop.	315.5	
Behavioral health professionals in ESAR-VHP per 1M pop.	9.1	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	48.2	

NR = Not reported
N/A = Not applicable

Mississippi

Mississippi has solid response plans in place for *Disaster Preparedness*, a good supply of specialty medical care facilities, and reforms in place to discourage unfounded medical malpractice litigation. However, the state suffers from several challenging issues in *Public Health and Injury Prevention* and a subpar *Quality and Patient Safety Environment*.

Strengths. Mississippi supports a relatively strong *Medical Liability Environment*. The state provides for case certification by an expert witness, which can help identify lawsuits without merit, and it has abolished joint and several liability. Mississippi has capped medical liability awards for non-economic damages at a moderate rate and the average malpractice award payments are the 6th lowest in the nation (\$153,415). These reforms have helped lower medical liability insurance premiums: The premiums for primary care physicians are just \$7,062, more than \$6,000 below the national average; and \$36,223 for specialists, more than \$21,000 below the national average.

While Mississippi faces a critical health care workforce shortage, the state ranks well in *Access to Emergency Care* overall due in large part to high levels of hospital capacity. Its population enjoys high per capita rates of pediatric specialty centers and emergency departments (ED), and it has the highest rate of psychiatric care beds in the nation (52.7 per 100,000 people). In conjunction with a low hospital occupancy rate and the third highest rate of staffed inpatient beds, the state has one of the lowest ED wait times in the country (217 minutes from ED arrival to ED departure).

In *Disaster Preparedness*, Mississippi has numerous policies in place to respond uniformly and effectively to a disaster. For instance, the state has an Emergency Support Function 8 (ESF-8) plan that is shared with all emergency medical services and essen-

tial hospital personnel, and it incorporates public health and emergency physician input during an ESF-8 response. The state also has a medical communication system with one layer of redundancy, a statewide patient-tracking system, and a statewide syndromic surveillance system.

Challenges. Mississippi has failed to improve in *Public Health and Injury Prevention*, with high rates of fatal injury and poor marks in health risk factors. It has the highest rates of adult and child obesity in the nation (34.9% and 21.7%, respectively) as well as high adult smoking rates (26.0%). Mississippi's infant mortality rate is 9.7 deaths per 1,000 live births, compared with the national average of 6.2. It has some of the highest rates of homicides and suicides, fire- and burn-related deaths, and accidental firearm deaths in the country. Most critically, traffic safety in Mississippi is a major concern: The state has the second highest rate of motor vehicle occupant deaths (19.8 per 100,000 people), the highest rate of bicyclist deaths (14.1 per 100,000 cyclists), and one of the highest rates of pedestrian deaths (10.4 per 100,000 pedestrians).

Although Mississippi has many policies and procedures in place to enhance the *Quality and Patient Safety Environment*, it has slipped in these rankings, largely because its hospitals have not kept pace with most states regarding adoption of technological advances. Only 59.8% of the state's hospitals have computer-

ized practitioner order entry, compared with 77.1% nationally; and only 79.4% have adopted electronic medical records, far less than the national average of 92.0%. Fewer than half the state's hospitals are collecting data on race and ethnicity and primary language.

Recommendations. Mississippi has several troubling trends in *Public Health and Injury Prevention*. A focus on lowering the state's adult and child obesity rates is critical. Mis-

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	27	C-	16	C-
Quality & Patient Safety Environment	24	C	38	D+
Medical Liability Environment	19	C	22	C
Public Health & Injury Prevention	49	F	50	F
Disaster Preparedness	27	C+	19	C
OVERALL	34	C-	26	C-

Mississippi's high rate of smoking should be addressed by enhancing current laws to ban all smoking in bars, restaurants, and workplaces. Finally, Mississippi's roads are dangerous, with very high numbers of deaths for drivers and passengers, cyclists, and pedestrians. Enhancing and enforcing existing traffic safety laws, as well as a concerted educational and outreach effort is needed to help make roadways safer for all road users.

Mississippi has a severe workforce shortage and must work to recruit and retain emergency physicians, orthopedists and hand surgeons, and primary care providers in particular. While the state's Medicaid fee levels for office visits are 122.1% of the national average and have trended positively since 2007, the state must do more to attract providers to fill this critical gap.

Finally, Mississippi's *Disaster Preparedness* grade was hampered by a lack of infrastructure for responding to the diverse needs of patients during a natural disaster or mass casualty event. The state has no physicians, nurses, or behavioral health providers registered in the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), and it has no burn unit beds. Enhancing volunteer health provider capacity would help the state respond quickly and effectively to disasters.

Mississippi has the highest rates of adult and child obesity in the nation, and traffic safety is a major concern.

ACCESS TO EMERGENCY CARE		C-
Board-certified emergency physicians per 100,000 pop.	6.0	
Emergency physicians per 100,000 pop.	9.1	
Neurosurgeons per 100,000 pop.	1.9	
Orthopedists and hand surgeon specialists per 100,000 pop.	7.2	
Plastic surgeons per 100,000 pop.	1.8	
ENT specialists per 100,000 pop.	3.7	
Registered nurses per 100,000 pop.	995.5	
Additional primary care FTEs needed per 100,000 pop.	7.4	
Additional mental health FTEs needed per 100,000 pop.	1.7	
% of children able to see provider	94.5	
Level I or II trauma centers per 1M pop.	2.7	
% of population within 60 minutes of Level I or II trauma center	78.1	
Accredited chest pain centers per 1M pop.	2.7	
% of population with an unmet need for substance abuse treatment	6.7	
Pediatric specialty centers per 1M pop.	7.0	
Physicians accepting Medicare per 100 beneficiaries	1.8	
Medicaid fee levels for office visits as a % of the national average	122.1	
% change in Medicaid fees for office visits (2007 to 2012)	29.2	
% of adults with no health insurance	18.7	
% of adults underinsured	9.9	
% of children with no health insurance	9.0	
% of children underinsured	15.2	
% of adults with Medicaid	11.1	
Emergency departments per 1M pop.	36.2	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	523.0	
Hospital occupancy rate per 100 staffed beds	58.4	
Psychiatric care beds per 100,000 pop.	52.7	
Median minutes from ED arrival to ED departure for admitted patients	217	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		C
Lawyers per 10,000 pop.	9.7	
Lawyers per physician	0.5	
Lawyers per emergency physician	10.6	
ATRA judicial hellholes (range 2 to -6)	2	
Malpractice award payments/ 100,000 pop.	2.3	
Average malpractice award payments	\$153,415	
Databank reports per 1,000 physicians	33.7	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	12.3	
Average medical liability insurance premium for primary care physicians	\$7,062	
Average medical liability insurance premium for specialists	\$36,223	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		D+
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	12.7	
Adverse event reporting required	No	
% of counties with E-911 capability	92.7	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	59.8	
% of hospitals with electronic medical records	79.4	
% of patients with AMI given PCI within 90 minutes of arrival	96	
Median time to transfer to another facility for acute coronary intervention	64	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	42.2	
% of hospitals having or planning to develop a diversity strategy/plan	23.3	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	19.8	
Bicyclist fatalities per 100,000 cyclists	14.1	
Pedestrian fatalities per 100,000 pedestrians	10.4	
% of traffic fatalities alcohol related	26	
Front occupant restraint use (%)	81.9	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	6	
Distracted driving legislation (range 0-4)	0	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	73.8	
% of adults aged 65+ who received flu vaccine in past year	65.4	
% of adults aged 65+ who ever received pneumococcal vaccine	69.0	
Fatal occupational injuries per 1M workers	51.1	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	23.3	
Unintentional fall-related fatal injuries per 100,000 pop.	9.5	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	2.7	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.7	
Unintentional poisoning-related fatal injuries per 100,000 pop.	9.4	
Total injury prevention funds per 1,000 pop.	\$224.95	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	9.7	
Binge alcohol drinkers, % of adults	14.2	
Current smokers, % of adults	26.0	
% of adults with BMI >30	34.9	
% of children obese	21.7	
Cardiovascular disease disparity ratio	2.1	
HIV diagnoses disparity ratio	9.2	
Infant mortality disparity ratio	2.1	
DISASTER PREPAREDNESS		C
Per capita federal disaster preparedness funds	\$5.89	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.1	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	None	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	6968.7	
ICU beds per 1M pop.	327.6	
Burn unit beds per 1M pop.	0.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	0.0	
Nurses in ESAR-VHP per 1M pop.	0.0	
Behavioral health professionals in ESAR-VHP per 1M pop.	0.0	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	40.8	

NR = Not reported
N/A = Not applicable

Missouri

Missouri has a strong *Disaster Preparedness* system with plans, policies, and facilities in place for an effective disaster response and above-average *Access to Emergency Care*. However, the state also has a challenging *Medical Liability Environment*, worrisome chronic disease risk factors, and high rates of preventable deaths.

Strengths. Missouri has worked to improve its already strong *Disaster Preparedness* by instituting a statewide patient-tracking system and including patients dependent on dialysis in its medical response plan. These and other policies and procedures help ensure that the medically vulnerable are cared for in the event of a disaster and that disaster data are tracked and monitored to ensure a quick and nimble state response. Missouri also has high per capita rates of burn unit beds (13.1 per 1 million people) and intensive care unit beds (372.3 per 1 million people). The state has a demonstrated commitment to training, with an above-average number of drills and exercises conducted with hospitals. Missouri has the second highest rate of behavioral health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals (74.6 per 1 million people) and is among the top 10 states for physicians and nurses registered, as well.

Missouri ranks sixth in the nation for *Access to Emergency Care*. An overall strong health care workforce bolsters this grade, with above-average per capita rates of many types of specialists. Missouri also has adequate hospital capacity, with high per capita rates of staffed inpatient beds (366.1 per 1 million people) and psychiatric care beds (52.6 per 1 million people). The state also has above-average rates of accredited chest pain centers, level I and II trauma centers, and emergency departments. Although Missouri's Medicaid fee levels for office visits need attention, at only 76.8% of the national average, they are at least trending in the right direction, with a 14.4% increase since 2007.

Challenges. Missouri has fallen in the *Medical Liability Environment* rankings. Missouri's \$350,000 cap on non-economic damages was struck down by the state Supreme Court in 2012, eliminating a key protection for health care providers in a state where the average malpractice award payments are almost \$130,000 higher than the national average. The state's medical liability insurance premiums for physicians are also higher than average. In addition, Missouri has few other protections in place for its health care providers. It does not provide for pretrial screening panels, which can help prevent frivolous lawsuits, and does not have rules requiring expert witnesses in medical liability cases to practice in the same specialty as the defendant or to be licensed to practice medicine in the state.

Missouri faces several challenges in *Public Health and Injury Prevention*. The state has one of the lowest rates of funding for injury prevention (\$13.36 per 1,000 people) in the nation, which may be reflected in higher-than-average preventable death rates in several areas, including homicides and suicides, traffic fatalities, poisoning-related deaths (which include drug overdoses), and fire- and burn-related deaths. Adults in Missouri have high rates of cigarette smoking (25.0%) and are more likely to be obese (30.3%) than adults in most states. Although Missouri's infant mortality rate is only slightly higher than average (6.6 deaths per 1,000 live births), the state has one of the highest infant mortality disparity ratios in the nation, with the non-Hispanic Black infant mortality rate being 3.6 times greater than that of the racial or ethnic group with the lowest rate.

Recommendations. Missouri must work to implement medical liability reforms to hold back rising medical liability insurance premiums that could jeopardize access to care. One important reform would be the implementation of additional liability protection for care mandated by the Emergency Medical Treatment and Labor Act,

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	18	C	6	C+
Quality & Patient Safety Environment	27	C	20	C+
Medical Liability Environment	22	C	45	F
Public Health & Injury Prevention	42	D-	46	F
Disaster Preparedness	18	B	8	B-
OVERALL	23	C	22	C-

which is aimed at reducing the burden on emergency providers who serve high-risk patients, often with little or no knowledge of their medical histories. Given the loss of the medical liability cap, this reform would be an important step toward improving the state's liability climate, potentially encouraging more on-call specialists to provide services to the emergency department.

Missouri should work to discourage risky behaviors that can lead to preventable disease and injury. Distracted driving legislation and stronger enforcement of child safety belt and seatbelt laws could help reduce traffic fatalities. Passage of smoke-free legislation for restaurants, bars, and workplaces could help prevent second-hand smoke exposure and encourage current smokers to quit.

Despite high scores in *Access to Emergency Care*, Missouri falls behind with regard to financial barriers to care and has a shortage of primary care providers. In addition to low Medicaid reimbursement rates, it ranks among the 10 worst for the proportion of children with no health insurance (11.5%). Missouri should work to address these issues to ensure that the state's low-income and child populations can access the care that they need.

ACCESS TO EMERGENCY CARE		C+
Board-certified emergency physicians per 100,000 pop.	8.3	
Emergency physicians per 100,000 pop.	13.0	
Neurosurgeons per 100,000 pop.	2.4	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.8	
Plastic surgeons per 100,000 pop.	2.6	
ENT specialists per 100,000 pop.	3.8	
Registered nurses per 100,000 pop.	1125.5	
Additional primary care FTEs needed per 100,000 pop.	6.0	
Additional mental health FTEs needed per 100,000 pop.	0.9	
% of children able to see provider	96.7	
Level I or II trauma centers per 1M pop.	2.7	
% of population within 60 minutes of Level I or II trauma center	89.6	
Accredited chest pain centers per 1M pop.	3.3	
% of population with an unmet need for substance abuse treatment	8.9	
Pediatric specialty centers per 1M pop.	3.3	
Physicians accepting Medicare per 100 beneficiaries	2.7	
Medicaid fee levels for office visits as a % of the national average	76.8	
% change in Medicaid fees for office visits (2007 to 2012)	14.4	
% of adults with no health insurance	15.9	
% of adults underinsured	7.8	
% of children with no health insurance	11.5	
% of children underinsured	17.8	
% of adults with Medicaid	9.7	
Emergency departments per 1M pop.	20.4	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	366.1	
Hospital occupancy rate per 100 staffed beds	63.3	
Psychiatric care beds per 100,000 pop.	52.6	
Median minutes from ED arrival to ED departure for admitted patients	239	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		F
Lawyers per 10,000 pop.	17.2	
Lawyers per physician	0.6	
Lawyers per emergency physician	13.2	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	2.8	
Average malpractice award payments	\$435,588	
Databank reports per 1,000 physicians	28.1	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	5.4	
Average medical liability insurance premium for primary care physicians	\$15,688	
Average medical liability insurance premium for specialists	\$56,001	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Partially	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C+
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	17.4	
Adverse event reporting required	No	
% of counties with E-911 capability	84.5	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	No	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	0	
% of hospitals with computerized practitioner order entry	80.3	
% of hospitals with electronic medical records	92.0	
% of patients with AMI given PCI within 90 minutes of arrival	96	
Median time to transfer to another facility for acute coronary intervention	74	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	85.8	
% of hospitals having or planning to develop a diversity strategy/plan	61.9	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	12.6	
Bicyclist fatalities per 100,000 cyclists	3.4	
Pedestrian fatalities per 100,000 pedestrians	5.9	
% of traffic fatalities alcohol related	38	
Front occupant restraint use (%)	79.0	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	5	
Distracted driving legislation (range 0-4)	0	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	72.7	
% of adults aged 65+ who received flu vaccine in past year	63.1	
% of adults aged 65+ who ever received pneumococcal vaccine	71.7	
Fatal occupational injuries per 1M workers	39.2	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	21.5	
Unintentional fall-related fatal injuries per 100,000 pop.	10.0	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.5	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.3	
Unintentional poisoning-related fatal injuries per 100,000 pop.	14.8	
Total injury prevention funds per 1,000 pop.	\$13.36	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	Yes	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	6.6	
Binge alcohol drinkers, % of adults	19.2	
Current smokers, % of adults	25.0	
% of adults with BMI >30	30.3	
% of children obese	13.5	
Cardiovascular disease disparity ratio	2.1	
HIV diagnoses disparity ratio	8.8	
Infant mortality disparity ratio	3.6	
DISASTER PREPAREDNESS		B-
Per capita federal disaster preparedness funds	\$5.22	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	No	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	2.7	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	County- or city-wide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	359.7	
ICU beds per 1M pop.	372.3	
Burn unit beds per 1M pop.	13.1	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	65.1	
Nurses in ESAR-VHP per 1M pop.	616.4	
Behavioral health professionals in ESAR-VHP per 1M pop.	74.6	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	40.8	

NR = Not reported
N/A = Not applicable

Montana

Montana continues to rank among the top 10 states for its *Medical Liability Environment* and has high levels of injury prevention funding and low racial and ethnic health disparities in infant mortality. However, the state is weak in statewide planning for disaster preparedness, quality improvement, and patient safety assurances.

Strengths. Montana has one of the top *Medical Liability Environments* in the nation. The state has implemented many reforms that help protect its health care providers. Mandatory pretrial screening panels help ensure that meritless lawsuits do not go forward, and Montana's \$250,000 medical liability cap on non-economic damages helps ensure that malpractice award payments will remain modest. Periodic payments are allowed upon request, and the state has partially reformed joint and several liability.

While faring poorly overall, Montana has improved somewhat in *Public Health and Injury Prevention*. With funds dedicated to injury prevention for both children and older adults, the state has the highest per capita level of injury prevention funding in the nation and has funding dedicated specifically for child and elderly injury prevention. It also has low fatality rates for bicyclists (1.8 per 100,000 cyclists) and pedestrians (2.7 per 100,000 pedestrians). Regarding health risk factors,

Montana has better-than-average rates of adult and child obesity (24.6 and 14.3%, respectively) and a low infant mortality rate (5.9 per 1,000 live births).

Despite overall low scores for its *Quality and Patient Safety Environment*, Montana recently implemented a prescription drug registry, which is an important investment for the state in helping to curb illicit use of prescription drugs.

Challenges. Montana ranks second worst in the nation for its *Quality and Patient Safety Environment*, largely due to a lack of state-level policies that promote quality of care. The state does not have triage and destination policies in place for trauma, stroke, or ST-elevation myocardial infarction (STEMI) patients and lacks a uniform system of providing pre-arrival instructions. Such policies and procedures can help streamline care and ensure that patients receive the most appropriate and effective treatments before arrival at the hospital. While more than 75% of Montana's hospitals have electronic medical records, they have fallen behind most other states in the adoption of computerized practitioner order entry (59.6%).

Montana also lags in terms of *Disaster Preparedness*. While the state has high per capita federal disaster preparedness funding levels (\$11.75 per person), it lacks some important statewide policies and procedures that would ensure a systematic approach to disaster response. Montana does not have a statewide patient tracking system or a syndromic surveillance system. It also lacks guidance in its medical response plan specifically for medically fragile patients, including patients dependent on dialysis, medication for chronic disease, or psychotropic medication.

In terms of *Access to Emergency Care*, Montana has comparatively high per capita rates of medical special-

ists and hospital facilities, despite being a large and rural state. However, there are some troubling gaps in their systems. The state has the second highest proportion of adults reporting an unmet need for substance abuse treatment (10.7%). Montana also has one of the highest rates of children without health insurance (12.3%), with unreasonable costs being reported by the parents of 20% of children with health insurance. The state also has a relatively high proportion of children who could not always see a provider when needed.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	24	C-	31	F
Quality & Patient Safety Environment	40	D+	50	F
Medical Liability Environment	7	B	10	B
Public Health & Injury Prevention	46	F	39	D-
Disaster Preparedness	44	D-	45	F
OVERALL	35	C-	48	D

Recommendations. Montana is a large, rural state with independent counties and cities, but state-level policies and procedures that ensure patient safety, quality improvement, and disaster preparedness are important safeguards that can be applied at the regional or local levels. These policies help ensure that the state can monitor and respond to emerging health issues, conduct a coordinated disaster response, and ensure that medically vulnerable patients receive prompt and evidence-based care.

Public Health and Injury Prevention efforts in Montana need to be strengthened and expanded. Montana has very high rates of binge drinking (20.8% of adults), and 42.0% of the state's traffic fatalities are alcohol-related, pointing to a need for education and enforcement. The state also has the third highest rate of traffic fatalities (18.2 per 100,000 people); low seatbelt usage rates; and weak traffic safety laws related to adult seat belt use, child safety seats, and distracted driving. Reform of these laws and targeted enforcement could help improve the overall safety and health of Montana's citizens.

Public health and injury prevention efforts in Montana need to be strengthened and expanded.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	9.8	
Emergency physicians per 100,000 pop.	11.6	
Neurosurgeons per 100,000 pop.	2.4	
Orthopedists and hand surgeon specialists per 100,000 pop.	11.3	
Plastic surgeons per 100,000 pop.	1.7	
ENT specialists per 100,000 pop.	3.0	
Registered nurses per 100,000 pop.	872.0	
Additional primary care FTEs needed per 100,000 pop.	3.3	
Additional mental health FTEs needed per 100,000 pop.	1.0	
% of children able to see provider	94.6	
Level I or II trauma centers per 1M pop.	4.0	
% of population within 60 minutes of Level I or II trauma center	40.6	
Accredited chest pain centers per 1M pop.	1.0	
% of population with an unmet need for substance abuse treatment	10.7	
Pediatric specialty centers per 1M pop.	7.0	
Physicians accepting Medicare per 100 beneficiaries	2.9	
Medicaid fee levels for office visits as a % of the national average	137.9	
% change in Medicaid fees for office visits (2007 to 2012)	50.5	
% of adults with no health insurance	20.0	
% of adults underinsured	7.8	
% of children with no health insurance	12.3	
% of children underinsured	20.3	
% of adults with Medicaid	6.1	
Emergency departments per 1M pop.	51.7	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	430.3	
Hospital occupancy rate per 100 staffed beds	64.0	
Psychiatric care beds per 100,000 pop.	32.1	
Median minutes from ED arrival to ED departure for admitted patients	219	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B
Lawyers per 10,000 pop.	17.9	
Lawyers per physician	0.8	
Lawyers per emergency physician	15.4	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	3.4	
Average malpractice award payments	\$259,757	
Databank reports per 1,000 physicians	38.5	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	31.2	
Average medical liability insurance premium for primary care physicians	\$14,749	
Average medical liability insurance premium for specialists	\$71,738	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	No	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	\$250,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Partially	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		F
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	0	
Adverse event reporting required	No	
% of counties with E-911 capability	98.3	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	No	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	No	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	No	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	59.6	
% of hospitals with electronic medical records	75.4	
% of patients with AMI given PCI within 90 minutes of arrival	90	
Median time to transfer to another facility for acute coronary intervention	172	
% of patients with AMI who received aspirin within 24 hours	100	
% of hospitals collecting data on race/ethnicity and primary language	55.4	
% of hospitals having or planning to develop a diversity strategy/plan	35.4	
PUBLIC HEALTH & INJURY PREVENTION		D-
Traffic fatalities per 100,000 pop.	18.2	
Bicyclist fatalities per 100,000 cyclists	1.8	
Pedestrian fatalities per 100,000 pedestrians	2.7	
% of traffic fatalities alcohol related	42	
Front occupant restraint use (%)	76.9	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	3	
Distracted driving legislation (range 0-4)	0	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	71.0	
% of adults aged 65+ who received flu vaccine in past year	55.9	
% of adults aged 65+ who ever received pneumococcal vaccine	69.6	
Fatal occupational injuries per 1M workers	81.7	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	25.6	
Unintentional fall-related fatal injuries per 100,000 pop.	13.0	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.0	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.5	
Unintentional poisoning-related fatal injuries per 100,000 pop.	7.5	
Total injury prevention funds per 1,000 pop.	\$9,538.38	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	5.9	
Binge alcohol drinkers, % of adults	20.8	
Current smokers, % of adults	22.1	
% of adults with BMI >30	24.6	
% of children obese	14.3	
Cardiovascular disease disparity ratio	1.9	
HIV diagnoses disparity ratio	NR	
Infant mortality disparity ratio	1.5	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$11.75	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	4.8	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	None	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	563.1	
ICU beds per 1M pop.	312.4	
Burn unit beds per 1M pop.	0.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	12.9	
Nurses in ESAR-VHP per 1M pop.	395.0	
Behavioral health professionals in ESAR-VHP per 1M pop.	5.0	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	43.4	

NR = Not reported
N/A = Not applicable

Nebraska

Nebraska continues to support a strong overall emergency care environment, ranking fourth in the country, after improving its already strong *Medical Liability Environment* and showing substantial progress in *Disaster Preparedness*. Nebraska continues to struggle, however, with low numbers of specialists and limited access to trauma centers.

Strengths. Nebraska has the lowest medical liability insurance premiums in the country for both primary care providers (\$3,837) and specialists (\$16,519). Since 2009, the state has also experienced reduced average malpractice award payments (\$174,222), fewer malpractice award payments (1.7 per 100,000 population), and a slight increase in the number of insurers writing malpractice policies.

Nebraska improved greatly in *Disaster Preparedness*, benefiting from high rates of intensive care unit beds, burn unit beds, and burn centers as well as overall bed surge capacity. In addition, Nebraska ranks among the top 10 states for registering physicians and behavioral health providers in the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP; 94.3 and 47.4 per 1 million people, respectively). The state also has mutual aid agreements with behavioral health providers to provide care during an event, and it has become accredited by the Emergency Management Accreditation Program (EMAP) since the last Report Card.

Challenges. Nebraska faces challenges in *Access to Emergency Care*, having among the lowest number of emergency physicians (8.4 per 100,000 people) and plastic surgeons (1.7 per 100,000) in the nation and below-average rates of orthopedists and hand surgeons (9.2 per 100,000). Ad-

ditionally, despite high proportions of the population having health insurance, the state has the third highest rate of underinsured children, with unreasonable costs being reported by the parents of 22.2% of children with health insurance. The state also ranked in the bottom 10 for availability of psychiatric care beds (16.0 per 100,000 people) and has a high proportion of adults with an unmet need for substance abuse treatment (9.7%).

Nebraska has failed to improve its *Quality and Patient Safety Environment* since the previous Report Card. Despite having passed legislation to create a prescription drug monitoring program, a multitude of issues have been noted by emergency physicians that have inhibited the effective implementation of such a program, including individuals' ability to opt out of the program, a subscription fee for physicians to access the program, and failure of some pharmacies to participate. In addition, the state has a low proportion of hospitals that have electronic medical records (83%), collect data on race and ethnicity and primary language (38.8%), and which are planning to implement a diversity strategy (29.6%).

Nebraska's performance in *Public Health and Injury Prevention* falls at both ends of the spectrum. While the state has some of the lowest rates of bicyclist fatalities, pedestrian fatalities, homicides and suicides, and poisoning-related deaths, it also has some of the highest rates of binge drinking among adults (22.7%) and fatal occupational injuries (45 per 1 million workers). While it has implemented legislation banning smoking in restaurants, bars, and workplaces, one-in-five adults still smoke. Nebraska also has a large proportion of adults who are obese (28.4%), which has increased since the previous Report Card.

Nebraska's population faces financial barriers and a workforce shortage that may hinder access to high-quality care.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	4	B	9	C
Quality & Patient Safety Environment	23	C+	24	C+
Medical Liability Environment	13	C+	5	B+
Public Health & Injury Prevention	19	B-	16	B-
Disaster Preparedness	35	C-	7	B-
OVERALL	5	C+	4	B-

Recommendations. Nebraska must work to improve the *Quality and Patient Safety Environment* by effectively implementing the prescription drug monitoring program that was approved in legislation passed in 2011. The state should work to develop a system for fully monitoring drug schedules II through V and provide real-time access to providers without requiring a subscription fee. Hospitals should be encouraged to adopt electronic medical records and collect and analyze data on patient race and ethnicity and primary language. In addition, the state should fully fund the implementation of a stroke system of care, including developing destination policies that would allow emergency medical services to bypass local hospitals to transport a patient directly to a hospital specialty center.

Nebraska must work to enhance current *Public Health and Injury Prevention* efforts by maintaining its motorcycle helmet use requirement and considering stronger regulations regarding texting and cell phone use while driving. The state has made good efforts to ban smoking in public places but needs to provide more education and outreach to reduce the proportion of adults who smoke.

ACCESS TO EMERGENCY CARE		C
Board-certified emergency physicians per 100,000 pop.	6.3	
Emergency physicians per 100,000 pop.	8.4	
Neurosurgeons per 100,000 pop.	2.1	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.2	
Plastic surgeons per 100,000 pop.	1.7	
ENT specialists per 100,000 pop.	3.7	
Registered nurses per 100,000 pop.	1040.6	
Additional primary care FTEs needed per 100,000 pop.	0.2	
Additional mental health FTEs needed per 100,000 pop.	0.4	
% of children able to see provider	96.9	
Level I or II trauma centers per 1M pop.	2.7	
% of population within 60 minutes of Level I or II trauma center	82.3	
Accredited chest pain centers per 1M pop.	10.2	
% of population with an unmet need for substance abuse treatment	9.7	
Pediatric specialty centers per 1M pop.	7.5	
Physicians accepting Medicare per 100 beneficiaries	3.0	
Medicaid fee levels for office visits as a % of the national average	93.3	
% change in Medicaid fees for office visits (2007 to 2012)	13.8	
% of adults with no health insurance	13.7	
% of adults underinsured	6.2	
% of children with no health insurance	8.2	
% of children underinsured	22.2	
% of adults with Medicaid	6.5	
Emergency departments per 1M pop.	29.1	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	421.4	
Hospital occupancy rate per 100 staffed beds	58.1	
Psychiatric care beds per 100,000 pop.	16.0	
Median minutes from ED arrival to ED departure for admitted patients	209	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B+
Lawyers per 10,000 pop.	13.5	
Lawyers per physician	0.5	
Lawyers per emergency physician	16.1	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.7	
Average malpractice award payments	\$174,222	
Databank reports per 1,000 physicians	22.5	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	Yes	
Number of insurers writing medical liability policies per 1,000 physicians	13.6	
Average medical liability insurance premium for primary care physicians	\$3,837	
Average medical liability insurance premium for specialists	\$16,519	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	Yes	
Periodic payments	No	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C+
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	12.4	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2006)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	1	
% of hospitals with computerized practitioner order entry	78.4	
% of hospitals with electronic medical records	83.0	
% of patients with AMI given PCI within 90 minutes of arrival	91	
Median time to transfer to another facility for acute coronary intervention	58	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	38.8	
% of hospitals having or planning to develop a diversity strategy/plan	29.6	
PUBLIC HEALTH & INJURY PREVENTION		B-
Traffic fatalities per 100,000 pop.	9.8	
Bicyclist fatalities per 100,000 cyclists	1.5	
Pedestrian fatalities per 100,000 pedestrians	1.3	
% of traffic fatalities alcohol related	30	
Front occupant restraint use (%)	84.2	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	2	
Distracted driving legislation (range 0-4)	1	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	82.9	
% of adults aged 65+ who received flu vaccine in past year	61.8	
% of adults aged 65+ who ever received pneumococcal vaccine	70.3	
Fatal occupational injuries per 1M workers	45.0	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	13.6	
Unintentional fall-related fatal injuries per 100,000 pop.	11.1	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.9	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	5.6	
Total injury prevention funds per 1,000 pop.	\$317.06	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0.5	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	5.3	
Binge alcohol drinkers, % of adults	22.7	
Current smokers, % of adults	20.0	
% of adults with BMI >30	28.4	
% of children obese	13.8	
Cardiovascular disease disparity ratio	2.6	
HIV diagnoses disparity ratio	11.0	
Infant mortality disparity ratio	2.6	
DISASTER PREPAREDNESS		B-
Per capita federal disaster preparedness funds	\$7.81	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	2.4	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	NR	
Patients on medication for chronic conditions in medical response plan	NR	
Medical response plan for supplying dialysis	NR	
Mental health patients in medical response plan	NR	
Medical response plan for supplying psychotropic medication	NR	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	NR	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	1518.2	
ICU beds per 1M pop.	378.3	
Burn unit beds per 1M pop.	12.4	
Verified burn centers per 1M pop.	0.5	
Physicians in ESAR-VHP per 1M pop.	94.3	
Nurses in ESAR-VHP per 1M pop.	225.8	
Behavioral health professionals in ESAR-VHP per 1M pop.	47.4	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	44.1	

NR = Not reported
N/A = Not applicable

Nevada

Despite a poor overall showing, Nevada managed to move up 12 places and improve its overall grade since 2009. This is due in large part to tremendous improvements in *Disaster Preparedness*; however, the state still faces a crisis in *Access to Emergency Care* and has seen further erosion of the *Quality and Patient Safety Environment*.

Strengths. Nevada should be applauded for having implemented a number of policies and practices that have helped make its *Disaster Preparedness* grade among the best in the nation. The state has invested in a statewide medical communication system with one layer of redundancy, has implemented a patient-tracking system, and has strike teams or medical assistance teams to provide support during a disaster. In addition, the state has passed Uniform Emergency Volunteer Health Practitioners Act, model legislation that includes specific liability protections for health care workers during a disaster. Nevada ranks first in the nation in the proportion of registered nurses who received disaster preparedness training (57.2%).

Nevada supports a strong *Medical Liability Environment*. The state has maintained its \$350,000 medical liability cap on non-economic damages and provides for awards to be offset by collateral sources. Nevada also allows periodic payments of malpractice awards on the request of one or both parties, as well as case certification by an expert witness. In addition, expert witnesses are required to be of the same specialty as the defendant.

Challenges. Nevada continues to face a crisis in *Access to Emergency Care*, for which it ranks last in the nation. The state has a severe shortage of specialists, ranking last or next to last for the number of neurosurgeons (1.1 per 100,000 people); orthopedists and hand surgeons (6.1 per 100,000); and ear, nose, and throat specialists (2.0 per 100,000). Compounding these issues are financial barriers to care, including high rates

of children and adults without insurance or who are underinsured. Nevada ranks 51st for the proportion of children without insurance (21.0%) and 43rd for those who have inadequate insurance (20.1%). It has only 8.7 emergency departments (ED) per 1 million people, compared with an average of 18.9 per 1 million people nationally, which has likely contributed to long wait times in the emergency department; the median time from ED arrival to ED departure for admitted patients was 337 minutes or 5.6 hours. Compounding these issues, Nevada supports the smallest nursing population, with only 605.5 registered nurses per 100,000 people.

Nevada's *Quality and Patient Safety Environment* has worsened compared to other states since 2009. The state does not have field triage protocols or guidelines for emergency medical services (EMS) response or a uniform system for pre-arrival instructions. The state has failed to implement destination policies that let EMS teams bypass local hospitals to transport stroke and ST-elevation myocardial infarction (STEMI) patients directly to a hospital specialty care center, despite having one of the highest rates of accredited chest pain centers in the country (5.4 per 1 million people). Finally, while the state has increased the proportion

of counties with enhanced 911 capability since 2009 (70.6% versus 52.9%, respectively), Nevada still lags far behind the average across the states (96.9% of counties).

Nevada's poor showing in *Public Health and Injury Prevention* is marked by both positive and negative results. The state has the worst child immunization rate (66.7%) and ranks 50th for influenza vaccination among the elderly (53.7%). It also has some of the highest rates of homicides and suicides (25.6 per 100,000 people) and unintentional poisoning-related deaths, which includes drug overdoses (18.3 per 100,000 people). At the same time, the state has the eighth lowest rate of fall-related deaths (5.7 per 100,000). Similarly, Nevada ranks 10th

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	46	F	51	F
Quality & Patient Safety Environment	35	D+	48	F
Medical Liability Environment	11	C+	15	B-
Public Health & Injury Prevention	33	D	28	D+
Disaster Preparedness	47	F	5	B
OVERALL	48	D	36	D+

best in obesity among adults (24.5%) but 10th worst in the proportion of children who are obese (18.6%).

Recommendations. Nevada must take immediate steps to address the crisis in *Access to Emergency Care*, including the specialist workforce shortage and financial barriers to care that continue to threaten the state's entire emergency care system. Recruitment and retention of providers must become a priority for Nevada policymakers to ensure that quality care is available as the Patient Protection and Affordable Care Act takes full effect.

Despite Nevada's strong showing for the *Medical Liability Environment*, there is ample room for improvement. The state's average medical liability insurance premiums for primary care providers and specialists have both decreased since the previous Report Card, but they still rank 42nd in the nation for both. The state should consider providing additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act to further alleviate the burden on physicians who are willing to provide emergent, lifesaving care to patients. Nevada should also consider passing apology inadmissibility laws and implementing pretrial screening panels to create a more favorable medical liability environment.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	10.1	
Emergency physicians per 100,000 pop.	11.6	
Neurosurgeons per 100,000 pop.	1.1	
Orthopedists and hand surgeon specialists per 100,000 pop.	6.1	
Plastic surgeons per 100,000 pop.	2.0	
ENT specialists per 100,000 pop.	2.0	
Registered nurses per 100,000 pop.	605.5	
Additional primary care FTEs needed per 100,000 pop.	2.5	
Additional mental health FTEs needed per 100,000 pop.	0.1	
% of children able to see provider	95.0	
Level I or II trauma centers per 1M pop.	1.1	
% of population within 60 minutes of Level I or II trauma center	94.2	
Accredited chest pain centers per 1M pop.	5.4	
% of population with an unmet need for substance abuse treatment	9.9	
Pediatric specialty centers per 1M pop.	2.2	
Physicians accepting Medicare per 100 beneficiaries	2.4	
Medicaid fee levels for office visits as a % of the national average	95.3	
% change in Medicaid fees for office visits (2007 to 2012)	0.0	
% of adults with no health insurance	23.2	
% of adults underinsured	8.4	
% of children with no health insurance	21.0	
% of children underinsured	20.1	
% of adults with Medicaid	5.8	
Emergency departments per 1M pop.	8.7	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	259.4	
Hospital occupancy rate per 100 staffed beds	69.2	
Psychiatric care beds per 100,000 pop.	23.8	
Median minutes from ED arrival to ED departure for admitted patients	337	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B-
Lawyers per 10,000 pop.	17.0	
Lawyers per physician	0.9	
Lawyers per emergency physician	14.6	
ATRA judicial hellholes (range 2 to -6)	-2	
Malpractice award payments/ 100,000 pop.	1.6	
Average malpractice award payments	\$219,408	
Databank reports per 1,000 physicians	35.2	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	15	
Average medical liability insurance premium for primary care physicians	\$18,298	
Average medical liability insurance premium for specialists	\$79,592	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	\$250,001 -350,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		F
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	9.4	
Adverse event reporting required	Yes	
% of counties with E-911 capability	70.6	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No protocols	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	61.4	
% of hospitals with electronic medical records	79.5	
% of patients with AMI given PCI within 90 minutes of arrival	94	
Median time to transfer to another facility for acute coronary intervention	142	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	50.0	
% of hospitals having or planning to develop a diversity strategy/plan	36.2	
PUBLIC HEALTH & INJURY PREVENTION		D+
Traffic fatalities per 100,000 pop.	7.8	
Bicyclist fatalities per 100,000 cyclists	6.0	
Pedestrian fatalities per 100,000 pedestrians	7.8	
% of traffic fatalities alcohol related	37	
Front occupant restraint use (%)	94.1	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	3	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	66.7	
% of adults aged 65+ who received flu vaccine in past year	53.7	
% of adults aged 65+ who ever received pneumococcal vaccine	68.9	
Fatal occupational injuries per 1M workers	28.1	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	25.6	
Unintentional fall-related fatal injuries per 100,000 pop.	5.7	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.7	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	18.3	
Total injury prevention funds per 1,000 pop.	\$30.86	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	2	
Anti-smoking legislation (range 0-3)	2	
Infant mortality rate per 1,000 live births	5.6	
Binge alcohol drinkers, % of adults	18.6	
Current smokers, % of adults	22.9	
% of adults with BMI >30	24.5	
% of children obese	18.6	
Cardiovascular disease disparity ratio	1.8	
HIV diagnoses disparity ratio	5.7	
Infant mortality disparity ratio	2.0	
DISASTER PREPAREDNESS		B
Per capita federal disaster preparedness funds	\$6.95	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.8	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	508.2	
ICU beds per 1M pop.	262.1	
Burn unit beds per 1M pop.	0.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	14.5	
Nurses in ESAR-VHP per 1M pop.	117.8	
Behavioral health professionals in ESAR-VHP per 1M pop.	18.5	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	57.2	

NR = Not reported
N/A = Not applicable

New Hampshire

New Hampshire continues to improve its *Quality and Patient Safety Environment* and *Disaster Preparedness* efforts, but a stagnant *Medical Liability Environment* and growing concerns about emergency department (ED) boarding and crowding, due to inadequate resources, contribute to the state's overall decline from 15th to 28th place.

Strengths. New Hampshire has instituted many policies and practices to contribute to its overall *Quality and Patient Safety Environment*, including having triage and destination policies in place for stroke, ST-elevation myocardial infarction (STEMI), and trauma patients, and working toward developing and implementing a statewide trauma registry. It has the highest rate of hospitals with a diversity strategy or plan (62.5%) and the fifth highest rate of hospitals collecting data on patient race and ethnicity and primary language (78.1%).

New Hampshire has dramatically improved its ranking in *Disaster Preparedness* since 2009, partly from implementing a statewide patient-tracking system, significantly increasing volunteer registration in the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), and having in place statewide mutual aid agreements with behavioral health providers to provide care to patients during an event. The state also has just-in-time training systems in place to notify and train health care workers in case of a disaster and maintains a statewide medical communication system.

Challenges. New Hampshire is facing a psychiatric care crisis, which has affected emergency care throughout the state. Availability of psychiatric care beds (22.9 per 100,000) and staffed inpatient beds (251.6 per 100,000) has further declined since the 2009 Report Card. Boarding of mental health patients in the ED has likely contributed to New Hampshire's higher-than-average median time from ED arrival

to ED departure for admitted patients (298 minutes). Additionally, the state has a relatively high proportion of adults needing but not receiving substance abuse treatment (9.6%).

While New Hampshire continues to have among the highest rates of health insurance coverage for adults and children, financial barriers that may result in declining or delaying needed care are still reported. In all, 8.5% of adults and 19.5% of children are underinsured. Medicaid fees for physician office visits have remained stagnant from 2007 to 2012, resulting in New Hampshire having fee levels that are only 81.1% of the national average.

New Hampshire's *Public Health and Injury Prevention* grade is affected greatly by its failure to pass traffic safety legislation. The state lacks laws requiring helmets for motorcycle riders, requiring adults to wear seatbelts, prohibiting cell phone use while driving, and requiring strict graduated driver licenses aimed at increasing the safety of teen drivers. New Hampshire has the third lowest rate of front occupant seatbelt use in the nation (75.0%). Also contributing to New Hampshire's score are relatively high disparity ratios related to cardiovascular disease prevalence and HIV diagnoses.

New Hampshire continues to have among the worst *Medical Liability Environments* in the nation. The state has failed to enact case certification requirements or pass expert witness rules requiring witnesses to be of the same specialty as the defendant and licensed to practice medicine in the state. While periodic payments are permitted, they are not required and are at the court's discretion. Medical liability caps on non-economic damages and collateral source rule reform were declared unconstitutional in 1980, and no changes have been made since that time. The state also lacks additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act.

New Hampshire is facing a psychiatric care crisis which has affected emergency care throughout the state.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	11	B-	30	D-
Quality & Patient Safety Environment	14	B+	10	B
Medical Liability Environment	36	D-	41	D-
Public Health & Injury Prevention	20	C+	32	D+
Disaster Preparedness	32	C	12	C+
OVERALL	15	C+	28	D+

Recommendations. New Hampshire must act immediately to address its under-resourced mental health system, work with hospitals throughout the state to increase the number of available psychiatric and staffed inpatient beds, and reduce boarding and crowding in EDs. The state must invest in community services and programs for mental health care and substance abuse treatment to alleviate these issues and to ensure a safe and effective system of care.

To improve traffic safety, New Hampshire should consider passing legislation to require helmet use for motorcycle riders as well as a universal seatbelt law with primary enforcement. To reduce the burden of disease, the state should seek to reduce racial and ethnic health disparities in cardiovascular disease and HIV risk.

New Hampshire should continue to support the *Quality and Patient Safety Environment* by maintaining funding for quality improvement within the emergency medical services system and developing a prescription drug-monitoring program, legislatively enacted in 2012, that monitors drug schedules II through V and provides real-time data collection from providers.

ACCESS TO EMERGENCY CARE		D-
Board-certified emergency physicians per 100,000 pop.	10.2	
Emergency physicians per 100,000 pop.	13.9	
Neurosurgeons per 100,000 pop.	2.1	
Orthopedists and hand surgeon specialists per 100,000 pop.	13.3	
Plastic surgeons per 100,000 pop.	2.3	
ENT specialists per 100,000 pop.	3.3	
Registered nurses per 100,000 pop.	1051.0	
Additional primary care FTEs needed per 100,000 pop.	0.4	
Additional mental health FTEs needed per 100,000 pop.	0.1	
% of children able to see provider	98.1	
Level I or II trauma centers per 1M pop.	1.5	
% of population within 60 minutes of Level I or II trauma center	96.2	
Accredited chest pain centers per 1M pop.	1.5	
% of population with an unmet need for substance abuse treatment	9.6	
Pediatric specialty centers per 1M pop.	2.3	
Physicians accepting Medicare per 100 beneficiaries	3.0	
Medicaid fee levels for office visits as a % of the national average	81.1	
% change in Medicaid fees for office visits (2007 to 2012)	0.0	
% of adults with no health insurance	13.9	
% of adults underinsured	8.5	
% of children with no health insurance	7.4	
% of children underinsured	19.5	
% of adults with Medicaid	3.6	
Emergency departments per 1M pop.	23.5	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	251.6	
Hospital occupancy rate per 100 staffed beds	64.6	
Psychiatric care beds per 100,000 pop.	22.9	
Median minutes from ED arrival to ED departure for admitted patients	298	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		D-
Lawyers per 10,000 pop.	15.5	
Lawyers per physician	0.5	
Lawyers per emergency physician	11.2	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	2.7	
Average malpractice award payments	\$321,721	
Databank reports per 1,000 physicians	31.2	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	15.1	
Average medical liability insurance premium for primary care physicians	\$12,552	
Average medical liability insurance premium for specialists	\$59,678	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	No	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		B
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	4.5	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	No	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	No	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	1	
% of hospitals with computerized practitioner order entry	74.1	
% of hospitals with electronic medical records	96.3	
% of patients with AMI given PCI within 90 minutes of arrival	93	
Median time to transfer to another facility for acute coronary intervention	50	
% of patients with AMI who received aspirin within 24 hours	100	
% of hospitals collecting data on race/ethnicity and primary language	78.1	
% of hospitals having or planning to develop a diversity strategy/plan	62.5	
PUBLIC HEALTH & INJURY PREVENTION		D+
Traffic fatalities per 100,000 pop.	9.0	
Bicyclist fatalities per 100,000 cyclists	4.3	
Pedestrian fatalities per 100,000 pedestrians	2.2	
% of traffic fatalities alcohol related	32	
Front occupant restraint use (%)	75.0	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	2	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	75.4	
% of adults aged 65+ who received flu vaccine in past year	57.4	
% of adults aged 65+ who ever received pneumococcal vaccine	73.1	
Fatal occupational injuries per 1M workers	9.9	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	15.1	
Unintentional fall-related fatal injuries per 100,000 pop.	11.8	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.0	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	9.3	
Total injury prevention funds per 1,000 pop.	\$304.58	
Dedicated child injury prevention funding	No	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0.5	
Anti-smoking legislation (range 0-3)	1	
Infant mortality rate per 1,000 live births	4.0	
Binge alcohol drinkers, % of adults	18.7	
Current smokers, % of adults	19.4	
% of adults with BMI >30	26.2	
% of children obese	15.5	
Cardiovascular disease disparity ratio	2.9	
HIV diagnoses disparity ratio	16.9	
Infant mortality disparity ratio	NR	
DISASTER PREPAREDNESS		C+
Per capita federal disaster preparedness funds	\$9.90	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	No	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	3.2	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	650.4	
ICU beds per 1M pop.	273.3	
Burn unit beds per 1M pop.	0.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	22.0	
Nurses in ESAR-VHP per 1M pop.	312.7	
Behavioral health professionals in ESAR-VHP per 1M pop.	16.7	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	38.5	

NR = Not reported
N/A = Not applicable

New Jersey

New Jersey fell 13 places, to 30th, due to worsening scores in *Access to Emergency Care* and the *Quality and Patient Safety Environment*. At the same time, the state has failed to significantly improve its poor *Medical Liability Environment*.

Strengths. New Jersey's strongest performance was in *Public Health and Injury Prevention*, in part because of strong state policies that require child safety seat and adult seatbelt use, prohibit texting and cell phone use while driving, prohibit smoking at worksites and in bars and restaurants, and require helmets for all motorcycle riders. These policies have likely played a critical role in the low traffic fatality rate (4.6 per 100,000 people), high rate of seat belt use (94.5%), and low proportion of adult smokers (16.8%) in the state.

While New Jersey's *Disaster Preparedness* grade has remained the same since 2009, the state's ranking has moved up 13 places due to improvements in a number of areas. The state has incorporated special needs patients, patients dependent on dialysis, and mental health patients into its medical response plans, and bed surge capacity has significantly improved since 2009 (from 201.2 to 655.6 per 1 million people). New Jersey is one of only 11 states that have a state budget line item for disaster preparedness funding specific to health care surge.

New Jersey must work harder to attract providers of all types to meet growing health care needs of its population.

Challenges. New Jersey's *Access to Emergency Care* has hit a tipping point. The state ranks among the lowest for many measures related to hospital capacity, financial barriers, and availability of providers. It has below-average rates of emergency physicians (11.8 per 100,000 people), ranking 33rd in the nation. The state has below-average rates of neurosurgeons; ear, nose, and throat specialists; and registered nurses. Additionally, New Jersey has one of the highest hospital occupancy rates (74.5%) and a below-average number of staffed inpatient beds (287.2 per 100,000). These factors have likely contributed to the long wait times in the emer-

gency department (ED): The median time from ED arrival to ED departure for admitted patients is 355 minutes, or 5.9 hours, putting New Jersey at 47th nationally.

Despite the persistent need to recruit and retain health care providers, New Jersey's *Medical Liability Environment* has changed little since 2009. The state has some of the highest average medical liability insurance premiums for physicians and specialists and falls well below average in the number of insurers writing policies (3.7 compared with 11.0 insurers per 1,000 physicians nationally). In addition, the number of malpractice award payments has increased more than threefold since the previous Report Card (3.5 versus 1.0 per 100,000 people). New Jersey lacks pretrial screening panels, periodic payments, and medical liability caps on non-economic damages, all of which would contribute to lessening the burden on physicians and increasing access to care.

While New Jersey continues to support the same practices and policies that resulted in a positive showing in 2009, the addition of new indicators in *Quality and Patient Safety* has revealed that the state is about average for many quality measures, such as the percentage of hospitals with computerized practitioner order entry (81.3%) and with electronic medical records (91%). More than half of New Jersey's hospitals collect data on patient race or ethnicity and primary language (65.3%).

Recommendations. New Jersey must work harder to attract providers of all types to meet the growing health care needs of its population and improve overall *Access to Emergency Care*. The state needs to act immediately to alleviate those issues that contribute to crowding and boarding in the ED, including high hospital occupancy rates, hospital closures, and lack of specialists. Compounding these problems, New Jersey has failed to increase Medicaid fees to an adequate level, as currently it pays only 40% of the national average, representing a slight increase since 2007. Grossly inad-

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	16	C	36	F
Quality & Patient Safety Environment	11	A-	19	C+
Medical Liability Environment	50	F	44	F
Public Health & Injury Prevention	13	B	11	B
Disaster Preparedness	26	C+	13	C+
OVERALL	17	C+	30	D+

equately Medicaid fees will continue to make it difficult to recruit and retain vital specialists in the state.

To aid in addressing issues of access to quality emergency care, New Jersey needs to implement medical liability reforms aimed at lowering insurance premiums and reducing excessive malpractice award payments. The state should enact special liability protection for providers of emergency care mandated by the Emergency Medical Treatment and Labor Act who assume significant risks in providing immediate, lifesaving care to patients, often with no knowledge of their medical history. New Jersey should also consider apology inadmissibility laws, pretrial screening panels, and required periodic payments of awards.

While New Jersey fared well in *Public Health and Injury Prevention* overall, racial and ethnic health disparities persist in infant mortality rates, cardiovascular disease, and HIV diagnoses. For instance, the state has the fourth highest infant mortality disparity ratio, despite having the eighth lowest infant mortality rate, with non-Hispanic black infants 4.5 times more likely to die in their first year than Asians and Pacific Islanders (who had the lowest rate). The state should consider taking action to improve health equity and reduce disparities for these and all racial and ethnic groups.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	9.5	
Emergency physicians per 100,000 pop.	11.8	
Neurosurgeons per 100,000 pop.	1.5	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.7	
Plastic surgeons per 100,000 pop.	2.7	
ENT specialists per 100,000 pop.	3.1	
Registered nurses per 100,000 pop.	884.9	
Additional primary care FTEs needed per 100,000 pop.	0.1	
Additional mental health FTEs needed per 100,000 pop.	0.0	
% of children able to see provider	94.2	
Level I or II trauma centers per 1M pop.	1.1	
% of population within 60 minutes of Level I or II trauma center	100.0	
Accredited chest pain centers per 1M pop.	1.1	
% of population with an unmet need for substance abuse treatment	6.6	
Pediatric specialty centers per 1M pop.	2.6	
Physicians accepting Medicare per 100 beneficiaries	2.9	
Medicaid fee levels for office visits as a % of the national average	40.0	
% change in Medicaid fees for office visits (2007 to 2012)	16.8	
% of adults with no health insurance	17.3	
% of adults underinsured	8.0	
% of children with no health insurance	9.4	
% of children underinsured	20.7	
% of adults with Medicaid	8.2	
Emergency departments per 1M pop.	7.6	
Hospital closures in 2011	1	
Staffed inpatient beds per 100,000 pop.	287.2	
Hospital occupancy rate per 100 staffed beds	74.5	
Psychiatric care beds per 100,000 pop.	25.3	
Median minutes from ED arrival to ED departure for admitted patients	355	
State collects data on diversion	N/A	
MEDICAL LIABILITY ENVIRONMENT		F
Lawyers per 10,000 pop.	22.7	
Lawyers per physician	0.7	
Lawyers per emergency physician	19.2	
ATRA judicial hellholes (range 2 to -6)	-1	
Malpractice award payments/ 100,000 pop.	3.5	
Average malpractice award payments	\$352,610	
Databank reports per 1,000 physicians	23.7	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	3.7	
Average medical liability insurance premium for primary care physicians	\$19,724	
Average medical liability insurance premium for specialists	\$83,053	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	No	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C+
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	20.9	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	No	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	83.1	
% of hospitals with electronic medical records	91.0	
% of patients with AMI given PCI within 90 minutes of arrival	91	
Median time to transfer to another facility for acute coronary intervention	81	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	65.3	
% of hospitals having or planning to develop a diversity strategy/plan	51.6	
PUBLIC HEALTH & INJURY PREVENTION		B
Traffic fatalities per 100,000 pop.	4.6	
Bicyclist fatalities per 100,000 cyclists	5.6	
Pedestrian fatalities per 100,000 pedestrians	5.1	
% of traffic fatalities alcohol related	36	
Front occupant restraint use (%)	94.5	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	2	
% of children immunized, aged 19-35 months	79.1	
% of adults aged 65+ who received flu vaccine in past year	61.3	
% of adults aged 65+ who ever received pneumococcal vaccine	65.6	
Fatal occupational injuries per 1M workers	19.7	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	11.4	
Unintentional fall-related fatal injuries per 100,000 pop.	4.7	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.7	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	9.3	
Total injury prevention funds per 1,000 pop.	\$35.74	
Dedicated child injury prevention funding	No	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	4.5	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	4.8	
Binge alcohol drinkers, % of adults	18.2	
Current smokers, % of adults	16.8	
% of adults with BMI >30	23.7	
% of children obese	10.0	
Cardiovascular disease disparity ratio	2.9	
HIV diagnoses disparity ratio	21.0	
Infant mortality disparity ratio	4.5	
DISASTER PREPAREDNESS		C+
Per capita federal disaster preparedness funds	\$6.98	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.4	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	None	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	655.6	
ICU beds per 1M pop.	225.4	
Burn unit beds per 1M pop.	3.2	
Verified burn centers per 1M pop.	0.1	
Physicians in ESAR-VHP per 1M pop.	34.6	
Nurses in ESAR-VHP per 1M pop.	279.2	
Behavioral health professionals in ESAR-VHP per 1M pop.	14.8	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	34.9	

NR = Not reported
N/A = Not applicable

New Mexico

New Mexico continues to struggle with many aspects of the emergency care environment, facing high rates of fatal injuries; health care workforce shortages for specialists, primary care, and other providers; and a *Medical Liability Environment* that serves as a barrier to recruiting and retaining health care professionals.

Strengths. New Mexico continues to support the *Quality and Patient Safety Environment* with funding for quality improvement of the emergency medical services (EMS) system and destination policies that allow EMS to bypass local hospitals when necessary to transport ST-elevation myocardial infarction (STEMI), stroke, and trauma patients directly to a hospital specialty center. The state has also increased the number of emergency medicine residents per capita (from 13.7 to 15.3 per 1 million people) since the last Report Card, though this is still well below the national average.

Despite a stagnant grade in *Public Health and Injury Prevention*, New Mexico managed to move from 32nd to 25th place in this category. The state fared well with regard to health equity, having the lowest disparity ratio in the nation for infant mortality and the eighth lowest HIV diagnosis disparity ratio. New Mexico also has a below-average proportion of adults who binge-drink, and has passed legislation banning smoking in worksites, restaurants, and bars.

While its overall *Disaster Preparedness* score was poor, New Mexico has moved up five places in this category since 2009. The state has become accredited by the Emergency Management Accreditation Program, has implemented a statewide patient tracking system, and is one of six states that require training for essential hospital personnel in disaster management and response. New Mexico's medical response plans also include special needs patients, patients on dialysis, and mental health patients. The state is one of 18 that address patients dependent on psychotropic medications in

their medical response plan.

Challenges. New Mexico's *Access to Emergency Care* is ranked second worst in the nation. Financial barriers and major workforce shortages continue to threaten patient health outcomes and the quality of care available. New Mexico has extremely low per capita rates of plastic surgeons; ear, nose, and throat specialists; neurosurgeons; and registered nurses. The state also has primary care and mental health provider shortages, needing an additional 6.7 full-time primary care providers and 2.0 full-time mental health providers per 100,000 people to meet the needs of its population. The state ranks 47th for the proportion of adults with an unmet need for substance abuse treatment (10.5%) and next to last for the number of psychiatric care beds available (6.0 per 100,000), which represents a 72% decrease in available psychiatric care beds from 2009.

The *Medical Liability Environment* in New Mexico fared slightly worse than in the previous Report Card due to an increasing number of malpractice award payments per capita, a slight increase in the average malpractice award, and failure to enact additional liability reforms. The state has seen a dramatic increase in National Practitioner Databank reports, from 28.2 to 41.9 per 1,000 physicians, which may be evidence of an increasingly litigious environment.

New Mexico's *Public Health and Injury Prevention* infrastructure is burdened by some of the highest rates of fatal injuries in the nation. The state has the second highest rate of homicides and suicides combined (27.6 per 100,000 people) and the third highest rate of poisoning-related deaths, which include overdoses (20.9 per 100,000), and ranks among the 11 worst states for fall-related deaths, pedestrian fatalities, and traffic fatalities.

Recommendations. Poor *Access to Emergency Care* has negatively affected the quality of care in New Mexico, resulting in long ED wait times, boarding of pa-

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	49	F	50	F
Quality & Patient Safety Environment	32	C-	34	D+
Medical Liability Environment	30	D	36	D-
Public Health & Injury Prevention	32	D+	25	D+
Disaster Preparedness	39	D+	34	D
OVERALL	49	D	49	D

tients in the ED, and crowding. The state must help address the worsening trends in emergency care system capacity by increasing the number of EDs, staffed inpatient beds, and psychiatric care beds available as well as improving access to substance abuse treatment. Finally, the health care workforce shortage in New Mexico threatens to worsen with full implementation of the Patient Protection and Affordable Care Act, as demand for all types of providers will likely increase across the country.

To help address the workforce shortage and improve access to care, the state should consider medical liability reforms that would offer physicians a fair and supportive environment in which to practice. The state could work to pass apology inadmissibility laws, expert witness rules, and collateral source rule reform, as well as additional liability protections for Emergency Medical Treatment and Labor Act-mandated emergency care.

With regard to its *Quality and Patient Safety Environment*, New Mexico should encourage the implementation of computerized practitioner order entry and electronic medical records among hospitals, both of which currently fall well below the national average. The state should also continue to support an increase in the emergency medicine resident population.

Poor access to emergency care is resulting in long emergency department (ED) wait times, boarding of patients in the ED, and crowding.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	11.0	
Emergency physicians per 100,000 pop.	14.0	
Neurosurgeons per 100,000 pop.	1.6	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.3	
Plastic surgeons per 100,000 pop.	1.2	
ENT specialists per 100,000 pop.	2.6	
Registered nurses per 100,000 pop.	740.9	
Additional primary care FTEs needed per 100,000 pop.	6.7	
Additional mental health FTEs needed per 100,000 pop.	2.0	
% of children able to see provider	94.7	
Level I or II trauma centers per 1M pop.	0.5	
% of population within 60 minutes of Level I or II trauma center	62.3	
Accredited chest pain centers per 1M pop.	1.9	
% of population with an unmet need for substance abuse treatment	10.5	
Pediatric specialty centers per 1M pop.	1.9	
Physicians accepting Medicare per 100 beneficiaries	2.8	
Medicaid fee levels for office visits as a % of the national average	110.1	
% change in Medicaid fees for office visits (2007 to 2012)	7.2	
% of adults with no health insurance	22.8	
% of adults underinsured	9.6	
% of children with no health insurance	9.9	
% of children underinsured	13.5	
% of adults with Medicaid	12.7	
Emergency departments per 1M pop.	13.9	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	253.2	
Hospital occupancy rate per 100 staffed beds	59.0	
Psychiatric care beds per 100,000 pop.	6.0	
Median minutes from ED arrival to ED departure for admitted patients	312	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		D-
Lawyers per 10,000 pop.	16.3	
Lawyers per physician	0.7	
Lawyers per emergency physician	11.7	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	3.1	
Average malpractice award payments	\$255,876	
Databank reports per 1,000 physicians	41.9	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	Yes	
Number of insurers writing medical liability policies per 1,000 physicians	14.5	
Average medical liability insurance premium for primary care physicians	\$13,344	
Average medical liability insurance premium for specialists	\$64,827	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	No	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		D+
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	15.3	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2006)	
State has or is working on a stroke system of care	No	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	66.7	
% of hospitals with electronic medical records	84.6	
% of patients with AMI given PCI within 90 minutes of arrival	90	
Median time to transfer to another facility for acute coronary intervention	72	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	40.7	
% of hospitals having or planning to develop a diversity strategy/plan	31.5	
PUBLIC HEALTH & INJURY PREVENTION		D+
Traffic fatalities per 100,000 pop.	14.8	
Bicyclist fatalities per 100,000 cyclists	3.8	
Pedestrian fatalities per 100,000 pedestrians	9.1	
% of traffic fatalities alcohol related	34	
Front occupant restraint use (%)	90.5	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	0	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	80.0	
% of adults aged 65+ who received flu vaccine in past year	58.8	
% of adults aged 65+ who ever received pneumococcal vaccine	69.2	
Fatal occupational injuries per 1M workers	48.1	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	27.6	
Unintentional fall-related fatal injuries per 100,000 pop.	13.1	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.0	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.3	
Unintentional poisoning-related fatal injuries per 100,000 pop.	20.9	
Total injury prevention funds per 1,000 pop.	\$464.83	
Dedicated child injury prevention funding	No	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	5.6	
Binge alcohol drinkers, % of adults	16.4	
Current smokers, % of adults	21.5	
% of adults with BMI >30	26.3	
% of children obese	14.4	
Cardiovascular disease disparity ratio	1.9	
HIV diagnoses disparity ratio	6.6	
Infant mortality disparity ratio	1.1	
DISASTER PREPAREDNESS		D
Per capita federal disaster preparedness funds	\$7.75	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	4.6	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	NR	
Bed surge capacity per 1M pop.	176.9	
ICU beds per 1M pop.	226.3	
Burn unit beds per 1M pop.	4.8	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	15.3	
Nurses in ESAR-VHP per 1M pop.	68.1	
Behavioral health professionals in ESAR-VHP per 1M pop.	11.5	
Strike teams or medical assistance teams	NR	
Disaster training required for essential hospital, EMS personnel	Yes, No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	37.9	

NR = Not reported
N/A = Not applicable

New York

While New York's overall grade remains unchanged, improved rankings in *Access to Emergency Care*, *Public Health and Injury Prevention*, and *Disaster Preparedness* have helped boost the state from 21st to a tie for 13th place overall. At the same time, New York has failed to pass meaningful medical liability reforms and has worsened in comparison to other states with regard to the *Quality and Patient Safety Environment*.

Strengths. New York continues to improve in *Public Health and Injury Prevention*, with a significant increase in the proportion of New Yorkers wearing seat belts, a requirement that motorcycle riders wear helmets, and distracted-driving laws prohibiting cell-phone use and texting. These factors have likely contributed to the third lowest rate of traffic fatalities in the nation (4.4 per 100,000 people).

New York earned a solid mark in *Disaster Preparedness*. It is one of only 11 states with a budget line item specifically for health care surge and one of 14 that requires training in disaster management and response for emergency medical services (EMS) personnel. New York also has some of the highest per capita rates of physicians and behavioral health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals.

New York's *Quality and Patient Safety Environment* reflects generally positive results. The state ranks among the best with regard to hospital adoption of electronic medical records (99.0%) and computerized practitioner order entry (87.6%). The state has also implemented a prescription drug monitoring program and has destination policies in place for stroke, ST-elevation myocardial infarction (STEMI), and trauma patients.

Challenges. New York's *Medical Liability Environment* continues to be among the worst in the nation with the highest number of malpractice award payments in the country (6.1 per 100,000 people),

representing a twelve-fold increase since the 2009 Report Card. The average malpractice award payment has increased from \$356,003 to \$409,773 during the same period. New York has some of the highest average medical liability insurance premiums for primary care physicians and specialists and few insurers writing policies.

While New York has improved in *Access to Emergency Care* with more registered nurses, specialists, and board-certified emergency physicians since 2009, much more work needs to be done. The state has the highest hospital occupancy rate in the nation (80.3 per 100 staffed beds) and the fourth fewest emergency departments per capita (8.0 per 1 million people). The number of staffed inpatient beds has decreased since 2009. All these factors contribute to emergency department (ED) boarding and crowding and the fourth longest average ED wait time in the nation: 366 minutes, or 6.1 hours. The state also faces challenges with access to primary care, needing an additional 2.8 full-time primary care physicians per 100,000 people to meet the needs of its population. Despite an increase in Medicaid fee levels for office

visits between 2007 and 2012, the state's fee levels are still only 77.3% of the national average, creating an additional barrier to care.

Recommendations. New York must work to improve the *Medical Liability Environment* to ensure access to timely, high-quality emergency care. The state should pursue legislation to provide special liability protections for care mandated by the Emergency Medical Treatment and Labor Act, recognizing the risks associated with providing immediate care in life-threatening situations, often without knowledge of the patient's medical history. Doing so would encourage specialists to provide on-call services to EDs and improve the quality of care for all New Yorkers. The state should also investigate pretrial screening panels, a cap on non-economic damages, and a require-

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	36	D-	17	C-
Quality & Patient Safety Environment	12	A-	23	C+
Medical Liability Environment	43	F	49	F
Public Health & Injury Prevention	18	B-	12	B
Disaster Preparedness	6	A-	4	B
OVERALL	21	C	13	C

ment that expert witnesses be of the same specialty as the defendant.

Emergency department crowding remains a major concern in New York. The state must take immediate action to alleviate long ED wait times, boarding, and crowding in order to ensure the best patient outcomes. Efforts also need to be made to increase access to primary and mental health care to ensure that those who need it are not forced to delay seeking care.

New York should continue to build on progress that has been made with regard to *Public Health and Injury Prevention* by instituting graduated driver's license laws that require a greater number of supervised practice hours and a ban on teen passengers. The state should also make an aggressive effort to improve immunization rates for the elderly and for children.

New York should support a statewide quality improvement initiative to allow for standardization of care and to further align EMS with established quality improvement systems in other areas of medicine. Additionally, the state should identify and support a state EMS medical director to provide clinical leadership and align New York with nationally established best practices in out-of-hospital emergency medical care.

ACCESS TO EMERGENCY CARE		C-
Board-certified emergency physicians per 100,000 pop.	10.5	
Emergency physicians per 100,000 pop.	15.6	
Neurosurgeons per 100,000 pop.	2.4	
Orthopedists and hand surgeon specialists per 100,000 pop.	10.8	
Plastic surgeons per 100,000 pop.	3.3	
ENT specialists per 100,000 pop.	4.2	
Registered nurses per 100,000 pop.	903.4	
Additional primary care FTEs needed per 100,000 pop.	2.8	
Additional mental health FTEs needed per 100,000 pop.	0.4	
% of children able to see provider	95.0	
Level I or II trauma centers per 1M pop.	1.8	
% of population within 60 minutes of Level I or II trauma center	98.1	
Accredited chest pain centers per 1M pop.	0.6	
% of population with an unmet need for substance abuse treatment	8.1	
Pediatric specialty centers per 1M pop.	3.1	
Physicians accepting Medicare per 100 beneficiaries	3.7	
Medicaid fee levels for office visits as a % of the national average	77.3	
% change in Medicaid fees for office visits (2007 to 2012)	60.3	
% of adults with no health insurance	13.8	
% of adults underinsured	7.6	
% of children with no health insurance	6.6	
% of children underinsured	17.9	
% of adults with Medicaid	18.3	
Emergency departments per 1M pop.	8	
Hospital closures in 2011	2	
Staffed inpatient beds per 100,000 pop.	363.2	
Hospital occupancy rate per 100 staffed beds	80.3	
Psychiatric care beds per 100,000 pop.	31.3	
Median minutes from ED arrival to ED departure for admitted patients	366	
State collects data on diversion	N/A	
MEDICAL LIABILITY ENVIRONMENT		F
Lawyers per 10,000 pop.	33.5	
Lawyers per physician	0.8	
Lawyers per emergency physician	21.4	
ATRA judicial hellholes (range 2 to -6)	-6	
Malpractice award payments/ 100,000 pop.	6.1	
Average malpractice award payments	\$409,773	
Databank reports per 1,000 physicians	35.3	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	1.5	
Average medical liability insurance premium for primary care physicians	\$21,418	
Average medical liability insurance premium for specialists	\$100,517	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Required	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C+
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	46.7	
Adverse event reporting required	Yes	
% of counties with E-911 capability	98.3	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	87.6	
% of hospitals with electronic medical records	99.0	
% of patients with AMI given PCI within 90 minutes of arrival	92	
Median time to transfer to another facility for acute coronary intervention	74	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	61.7	
% of hospitals having or planning to develop a diversity strategy/plan	52.3	
PUBLIC HEALTH & INJURY PREVENTION		B
Traffic fatalities per 100,000 pop.	4.4	
Bicyclist fatalities per 100,000 cyclists	4.4	
Pedestrian fatalities per 100,000 pedestrians	2.3	
% of traffic fatalities alcohol related	33	
Front occupant restraint use (%)	90.5	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	7	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	70.3	
% of adults aged 65+ who received flu vaccine in past year	60.0	
% of adults aged 65+ who ever received pneumococcal vaccine	65.2	
Fatal occupational injuries per 1M workers	20.4	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	12.1	
Unintentional fall-related fatal injuries per 100,000 pop.	6.3	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.8	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	7.1	
Total injury prevention funds per 1,000 pop.	\$53.71	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	2.5	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	5.1	
Binge alcohol drinkers, % of adults	19.6	
Current smokers, % of adults	18.1	
% of adults with BMI >30	24.5	
% of children obese	14.5	
Cardiovascular disease disparity ratio	1.2	
HIV diagnoses disparity ratio	10.3	
Infant mortality disparity ratio	3.5	
DISASTER PREPAREDNESS		B
Per capita federal disaster preparedness funds	\$13.98	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	2.3	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	None	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	287.5	
ICU beds per 1M pop.	239.4	
Burn unit beds per 1M pop.	7.5	
Verified burn centers per 1M pop.	0.1	
Physicians in ESAR-VHP per 1M pop.	474.6	
Nurses in ESAR-VHP per 1M pop.	303.5	
Behavioral health professionals in ESAR-VHP per 1M pop.	60.3	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No, Yes	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	39.2	

NR = Not reported
N/A = Not applicable

North Carolina

North Carolina has made excellent progress in improving its *Medical Liability Environment* since 2009, which is reflected in its overall performance. However, critical issues hindering *Access to Emergency Care* have not been adequately addressed and continue to burden the entire emergency care system.

Strengths. North Carolina should be applauded for passing legislation to improve the *Medical Liability Environment*, including a requirement that clear and convincing evidence be provided as proof of medical negligence in suits related to the provision of care mandated by the Emergency Medical Treatment and Labor Act (EMTALA), adding one additional layer of liability protection for physicians who provide emergency care. The state also instituted a \$500,000 medical liability cap on non-economic damages in 2011. Since 2009, North Carolina has seen average medical liability insurance premiums decrease by more than 25% for both primary care physicians and specialists. Average medical malpractice award payments decreased as well.

North Carolina received high marks in *Quality and Patient Safety* for having implemented a prescription drug monitoring program that monitors drug schedules II to V; putting in place stroke and ST-elevation myocardial infarction (STEMI) systems of care, including destination policies that allow emergency medical services to bypass local hospitals to take patients to hospital specialty centers; and ranking third in the nation for fewest minutes before outpatients with chest pain were transferred to an appropriate hospital (47 minutes). Nearly 97% of the state's hospitals have electronic medical records, and 58.3% have or are planning to develop a diversity strategy or plan. In addition, 97% of patients with acute myo-

cardial infarction were given percutaneous coronary intervention within 90 minutes of arrival, up from 70% in 2009, ranking second in the nation.

Challenges. North Carolina made limited progress regarding *Access to Emergency Care* since the 2009 Report Card. While increasing the proportion of the population within 60 minutes of a level I or II trauma center (94.1%) and the number of accredited chest pain centers per capita (3.5 per 1 million people), the state lost ground in the number of staffed inpatient beds and emergency departments (ED) per capita (289.6 per 100,000 and 11.2 per 1 million people, respectively). North Carolina also continues to have a high hospital occupancy rate (70.7 per 100 staffed inpatient beds) and a low rate of psychiatric care beds (21.9 per 100,000 people).

North Carolina's *Public Health and Injury Prevention* grade reflects a mix of adequate and poor performance. For instance, while the state has relatively high rates of vaccination among the elderly, only 75.3% of children receive the full schedule of immunizations, down from 84.3% in 2009. North Carolina also has higher-than-average obesity rates among adults and children, contributing to an overburdened medical system.

North Carolina's performance in *Disaster Preparedness* fell slightly since 2009, resulting in an average grade. Only about a third of

registered nurses in North Carolina report receiving training in emergency preparedness, compared to about 40% nationally.

Recommendations. While North Carolina has made great progress in improving its *Medical Liability Environment*, the state must be vigilant in maintaining recent reforms, such as additional liability protections for EMTALA-mandated care and medical liability caps on non-economic

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	34	D-	27	D
Quality & Patient Safety Environment	5	A	4	A-
Medical Liability Environment	46	F	24	C
Public Health & Injury Prevention	23	C	23	C-
Disaster Preparedness	20	B-	27	C-
OVERALL	32	C-	13	C

damages. Additional reforms should be considered, including abolishing joint and several liability and providing for malpractice award payments to be offset by collateral sources.

North Carolina must act immediately to address its many issues related to *Access to Emergency Care*. The number of physicians accepting Medicare has dropped to only 2.5 per 100 Medicare beneficiaries, an access problem likely to be exacerbated by an aging population. With regard specifically to emergency care, the state must work with hospitals and mental health providers to increase the availability of psychiatric care beds and access to community mental health services in order to prevent boarding of mental health patients in the ED. The state needs to work to reduce ED wait times, which average 312 minutes from ED arrival to ED departure for admitted patients.

North Carolina must act immediately to address its many issues related to access to emergency care.

ACCESS TO EMERGENCY CARE		D
Board-certified emergency physicians per 100,000 pop.	10.3	
Emergency physicians per 100,000 pop.	13.5	
Neurosurgeons per 100,000 pop.	1.8	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.9	
Plastic surgeons per 100,000 pop.	1.9	
ENT specialists per 100,000 pop.	3.6	
Registered nurses per 100,000 pop.	946.0	
Additional primary care FTEs needed per 100,000 pop.	1.5	
Additional mental health FTEs needed per 100,000 pop.	0.2	
% of children able to see provider	95.7	
Level I or II trauma centers per 1M pop.	0.7	
% of population within 60 minutes of Level I or II trauma center	94.1	
Accredited chest pain centers per 1M pop.	3.5	
% of population with an unmet need for substance abuse treatment	7.2	
Pediatric specialty centers per 1M pop.	2.4	
Physicians accepting Medicare per 100 beneficiaries	2.5	
Medicaid fee levels for office visits as a % of the national average	115.6	
% change in Medicaid fees for office visits (2007 to 2012)	11.5	
% of adults with no health insurance	18.6	
% of adults underinsured	8.8	
% of children with no health insurance	9.3	
% of children underinsured	18.0	
% of adults with Medicaid	9.5	
Emergency departments per 1M pop.	11.2	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	289.6	
Hospital occupancy rate per 100 staffed beds	70.7	
Psychiatric care beds per 100,000 pop.	21.9	
Median minutes from ED arrival to ED departure for admitted patients	312	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		C
Lawyers per 10,000 pop.	10.9	
Lawyers per physician	0.4	
Lawyers per emergency physician	8.1	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.5	
Average malpractice award payments	\$242,973	
Databank reports per 1,000 physicians	17.2	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	3.7	
Average medical liability insurance premium for primary care physicians	\$9,976	
Average medical liability insurance premium for specialists	\$48,712	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	No	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	Yes	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		A-
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	17.8	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	73.2	
% of hospitals with electronic medical records	96.7	
% of patients with AMI given PCI within 90 minutes of arrival	97	
Median time to transfer to another facility for acute coronary intervention	47	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	71.5	
% of hospitals having or planning to develop a diversity strategy/plan	58.3	
PUBLIC HEALTH & INJURY PREVENTION		C-
Traffic fatalities per 100,000 pop.	11.7	
Bicyclist fatalities per 100,000 cyclists	10.0	
Pedestrian fatalities per 100,000 pedestrians	9.0	
% of traffic fatalities alcohol related	34	
Front occupant restraint use (%)	89.5	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	75.3	
% of adults aged 65+ who received flu vaccine in past year	66.6	
% of adults aged 65+ who ever received pneumococcal vaccine	72.1	
Fatal occupational injuries per 1M workers	31.4	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	18.7	
Unintentional fall-related fatal injuries per 100,000 pop.	9.0	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.1	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.3	
Unintentional poisoning-related fatal injuries per 100,000 pop.	10.1	
Total injury prevention funds per 1,000 pop.	\$288.47	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	1.5	
Anti-smoking legislation (range 0-3)	2	
Infant mortality rate per 1,000 live births	7.0	
Binge alcohol drinkers, % of adults	15.2	
Current smokers, % of adults	21.8	
% of adults with BMI >30	29.1	
% of children obese	16.1	
Cardiovascular disease disparity ratio	3.7	
HIV diagnoses disparity ratio	11.9	
Infant mortality disparity ratio	2.8	
DISASTER PREPAREDNESS		C-
Per capita federal disaster preparedness funds	\$4.20	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.9	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	Local-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	1516.0	
ICU beds per 1M pop.	258.5	
Burn unit beds per 1M pop.	6.2	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	43.3	
Nurses in ESAR-VHP per 1M pop.	199.9	
Behavioral health professionals in ESAR-VHP per 1M pop.	5.6	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No, Yes	
Liability protections for health care workers during a disaster (range 0-4)	1	
% of RNs received disaster training	34.0	

NR = Not reported
N/A = Not applicable

North Dakota

North Dakota continues its solid performance, ranking eighth in the nation overall, improving with regard to *Disaster Preparedness* and its *Medical Liability Environment*. However, problems have worsened in *Public Health and Injury Prevention*, requiring that effective actions be taken to improve public health and safety.

Strengths. North Dakota continued to excel in *Disaster Preparedness*. The state has a budget line item for disaster preparedness funding specific to health care surge (one of 11 states to do so), as well as a patient-tracking system and a statewide medical communication system with one layer of redundancy. The state also has systems in place to address behavioral health concerns during a disaster, having incorporated mental health patients and patients dependent on psychotropic medications in its medical response plan and instituting mutual aid agreements with behavioral health providers to provide services during an event. The state also has the fifth highest number of behavioral health professionals registered in the Emergency System for Advance Registration for Volunteer Health Professionals (52.9 per 1 million people).

North Dakota's *Medical Liability Environment* has improved since 2009, primarily due to decreases in medical liability insurance premiums and an increase in the number of insurers writing policies. The average medical liability premiums for specialists is \$25,510 (the fifth lowest in the nation) compared to \$35,922 in the 2009 Report Card. North Dakota has maintained its medical liability cap on non-economic damages and has abolished joint and several liability.

North Dakota's grade in *Access to Emergency Care* reflects a mixture of positive and negative results. The state ranks among the top 10 with regard to health insurance

for adults and children and has the lowest proportion of underinsured adults (4.6%). It has the fourth highest proportion of underinsured children, however, with 21.7% of parents of children with insurance reporting that their out-of-pocket costs were not reasonable. The state fares excellently regarding hospital capacity, with 514.3 staffed inpatient beds per 100,000 people and 37.2 emergency departments (ED) per 1 million people. ED wait times are third best in the nation, averaging 189 minutes from ED arrival to ED departure for admitted patients.

Challenges. A few factors contributed to North Dakota's poor grade in regard to the *Quality and Patient Safety Environment*. The state lacks funding for both an emergency medical services (EMS) medical director and quality improvement of the EMS system. Additionally, North Dakota's hospitals are among the least likely to collect data on patients' race and ethnicity and primary language (28%), or have a diversity strategy or plan (18%).

North Dakota continues to falter with regard to *Public Health and Injury Prevention*. While the state has one of the lowest combined rates of homicides and suicides, it has the third highest rate of fatal occupational injuries (94.0 per 1 million workers) and 10th highest rate of fall-related deaths (12.3 per 100,000 people) in the nation. In addition, the state has only secondary enforcement of adult seatbelt laws applying to front seat occupants, despite having the fourth lowest proportion of front-seat occupants using seatbelts (76.7%). Nearly a quarter of adults in North Dakota binge-drink (23.8%), for which they rank third worst in the nation, and 45% of traffic fatalities are alcohol-related (rank: 47th).

North Dakota should take action to improve the public health and safety of its people.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	6	B-	8	C
Quality & Patient Safety Environment	31	C-	36	D+
Medical Liability Environment	14	C+	8	B+
Public Health & Injury Prevention	30	D+	38	D-
Disaster Preparedness	5	A	2	A
OVERALL	10	C+	8	C+

Recommendations. North Dakota should take action to improve the public health and safety of its people. One way to do so would be to consider legislation aimed at reducing traffic fatalities, which are much higher than the national average (14.2 versus 9.0 per 100,000 people), including requiring helmets for all motorcycle riders, strengthening adult seatbelt laws through primary enforcement and requiring that seatbelts be used in all seats, and instituting an intermediate driver's license stage with nighttime driving restrictions and supervised practice driving hours. Additional health promotion efforts should be aimed at reducing cigarette smoking and binge drinking, the latter of which may contribute to the state's high rate of traffic fatalities that are alcohol-related.

North Dakota could also help to improve its *Quality and Patient Safety Environment* by funding an EMS medical director and encouraging hospitals to collect data on patients' race and ethnicity and primary language. This may be a first step in helping to address the relatively high cardiovascular disease and infant mortality disparity ratios in the state.

ACCESS TO EMERGENCY CARE		C
Board-certified emergency physicians per 100,000 pop.	7.3	
Emergency physicians per 100,000 pop.	9.4	
Neurosurgeons per 100,000 pop.	2.1	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.0	
Plastic surgeons per 100,000 pop.	2.4	
ENT specialists per 100,000 pop.	2.9	
Registered nurses per 100,000 pop.	1308.5	
Additional primary care FTEs needed per 100,000 pop.	4.7	
Additional mental health FTEs needed per 100,000 pop.	0.9	
% of children able to see provider	97.9	
Level I or II trauma centers per 1M pop.	8.6	
% of population within 60 minutes of Level I or II trauma center	60.2	
Accredited chest pain centers per 1M pop.	0.0	
% of population with an unmet need for substance abuse treatment	9.8	
Pediatric specialty centers per 1M pop.	10.0	
Physicians accepting Medicare per 100 beneficiaries	3.8	
Medicaid fee levels for office visits as a % of the national average	193.6	
% change in Medicaid fees for office visits (2007 to 2012)	98.2	
% of adults with no health insurance	10.4	
% of adults underinsured	4.6	
% of children with no health insurance	4.7	
% of children underinsured	21.7	
% of adults with Medicaid	5.0	
Emergency departments per 1M pop.	37.2	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	514.3	
Hospital occupancy rate per 100 staffed beds	62.0	
Psychiatric care beds per 100,000 pop.	23.3	
Median minutes from ED arrival to ED departure for admitted patients	189	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B+
Lawyers per 10,000 pop.	9.9	
Lawyers per physician	0.4	
Lawyers per emergency physician	10.5	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.4	
Average malpractice award payments	\$320,688	
Databank reports per 1,000 physicians	31.5	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	25.8	
Average medical liability insurance premium for primary care physicians	\$7,330	
Average medical liability insurance premium for specialists	\$25,510	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		D+
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	0	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	80.0	
% of hospitals with electronic medical records	91.1	
% of patients with AMI given PCI within 90 minutes of arrival	93	
Median time to transfer to another facility for acute coronary intervention	68	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	28.0	
% of hospitals having or planning to develop a diversity strategy/plan	18.0	
PUBLIC HEALTH & INJURY PREVENTION		D-
Traffic fatalities per 100,000 pop.	14.2	
Bicyclist fatalities per 100,000 cyclists	1.6	
Pedestrian fatalities per 100,000 pedestrians	2.0	
% of traffic fatalities alcohol related	45	
Front occupant restraint use (%)	76.7	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	3	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	84.1	
% of adults aged 65+ who received flu vaccine in past year	58.0	
% of adults aged 65+ who ever received pneumococcal vaccine	70.1	
Fatal occupational injuries per 1M workers	94.0	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	15.7	
Unintentional fall-related fatal injuries per 100,000 pop.	12.3	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.0	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	3.9	
Total injury prevention funds per 1,000 pop.	\$3,422.30	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	1	
Infant mortality rate per 1,000 live births	6.8	
Binge alcohol drinkers, % of adults	23.8	
Current smokers, % of adults	21.9	
% of adults with BMI >30	27.8	
% of children obese	15.4	
Cardiovascular disease disparity ratio	2.6	
HIV diagnoses disparity ratio	NR	
Infant mortality disparity ratio	2.9	
DISASTER PREPAREDNESS		A
Per capita federal disaster preparedness funds	\$15.85	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	10.9	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	1223.5	
ICU beds per 1M pop.	350.2	
Burn unit beds per 1M pop.	0.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	11.4	
Nurses in ESAR-VHP per 1M pop.	497.4	
Behavioral health professionals in ESAR-VHP per 1M pop.	52.9	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	NR	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	45.7	

NR = Not reported
N/A = Not applicable



Ohio

Increased *Access to Emergency Care* and an improved *Medical Liability Environment* contribute to Ohio's overall success. However, the state has failed to improve on *Public Health and Injury Prevention* and its *Disaster Preparedness* has worsened compared to other states.

Strengths. Ohio continues to support *Access to Emergency Care*, having increased the numbers of emergency physicians; many categories of specialists, such as neurosurgeons and orthopedists; and registered nurses since the 2009 Report Card. The state also has excellent access to accredited chest pain centers (5.6 per 1 million people) and physicians who accept Medicare (3.8 per 100 Medicare beneficiaries).

Ohio improved somewhat with regard to its *Quality and Patient Safety Environment*, moving from 21st to 15th place. The state has a funded emergency medical services (EMS) medical director and uses Centers for Disease Control and Prevention guidelines for its state field trauma triage protocols. Ohio also maintains a statewide trauma registry and has destination policies in place for trauma patients. Being the birthplace of emergency medicine training, the state performs strongly with regard to the rate of emergency medicine residents (36.3 per 1 million people). Ohio's hospitals contributed to the state's overall grade: 96.7% have adopted electronic medical records, 66.2% collect data on patient race and ethnicity and primary language, and 56.9% have or are planning to implement a diversity strategy.

Ohio has improved with regard to its *Medical Liability Environment*, having implemented apology inadmissibility laws, expert witness rules, and a cap on non-economic damages. While average medical liability insurance premiums remain higher than the national average, they are reduced compared to the previous Report Card: The \$16,458 average premium for physicians represents a 28.5% decrease, while the \$58,665 average premium for specialists is 36.9% less.

Challenges. Ohio continues to struggle with regard to *Public Health and Injury Prevention*, having the fifth highest infant mortality rate in the nation (7.7 per 1,000 live births) and the ninth highest infant mortality disparity ratio, which indicates that the infant mortality rate for non-Hispanic Black infants is 3.1 times greater than the mortality rate for the race with the lowest rate. More than a quarter of Ohio's adults smoke cigarettes, placing them eighth worst in the nation. The state also lacks key traffic safety provisions, including a helmet use requirement for all motorcycle riders, a ban on handheld cellphone use for all drivers, and adult seatbelt laws covering all seats.

Recommendations. While Ohio showed improvement with regard to the *Medical Liability Environment*, measures should be taken to ensure that policies currently

Ohio must address the growing lack of access to behavioral health services.

in place are maintained and strengthened. The state should investigate implementation of liability protections for care mandated by the Emergency Medical Treatment and Labor Act that require clear and convincing evidence of negligence in a malpractice case. This would alleviate concerns that providers may have with high-risk emergency patients and encourage specialists to provide needed on-call services in the emergency department. Ohio should also amend its current collateral source rules by ensuring that damages may be offset by the amount of collateral source payments received.

Despite its overall positive performance in *Access to Emergency Care*, Ohio must address the growing lack of access to behavioral health services. The proportion of adults with an unmet need for substance abuse treatment has increased since the 2009 Report Card, and the state has the 10th highest rate of poisoning-related deaths, which includes overdoses. At the same time, the proportion of adults with no health insurance has increased, further limiting access to primary, mental, and behavioral health care. While Medicaid coverage increased for

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	14	C+	5	B-
Quality & Patient Safety Environment	21	B-	15	B-
Medical Liability Environment	18	C	6	B+
Public Health & Injury Prevention	27	C-	22	C-
Disaster Preparedness*	36	C-	51	F*
OVERALL	18	C	7	C+

adults, Medicaid fee levels decreased compared to the national average, posing an additional challenge to accessing primary and behavioral health care for this population.

**Ohio's grade in the Disaster Preparedness category is based largely on survey responses provided by the state that were discovered to be inaccurate just prior to release of the Report Card. Those original survey responses were used to calculate the state's grade of F and are also used in the compilation of the summary statistics for all states. While too late for inclusion in the Report Card's calculations or the printed version of the Report Card, the following data page has been amended to reflect Ohio's revised responses. The revisions would have likely improved the state's Disaster Preparedness grade to a C or C- and the overall state grade would likely remain the same or improve to a B-.*

ACCESS TO EMERGENCY CARE		B-
Board-certified emergency physicians per 100,000 pop.	11.7	
Emergency physicians per 100,000 pop.	15.7	
Neurosurgeons per 100,000 pop.	2.4	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.7	
Plastic surgeons per 100,000 pop.	2.3	
ENT specialists per 100,000 pop.	3.6	
Registered nurses per 100,000 pop.	1081.3	
Additional primary care FTEs needed per 100,000 pop.	1.0	
Additional mental health FTEs needed per 100,000 pop.	0.3	
% of children able to see provider	95.3	
Level I or II trauma centers per 1M pop.	2.0	
% of population within 60 minutes of Level I or II trauma center	99.3	
Accredited chest pain centers per 1M pop.	5.6	
% of population with an unmet need for substance abuse treatment	8.9	
Pediatric specialty centers per 1M pop.	2.7	
Physicians accepting Medicare per 100 beneficiaries	3.8	
Medicaid fee levels for office visits as a % of the national average	81.0	
% change in Medicaid fees for office visits (2007 to 2012)	16.6	
% of adults with no health insurance	15.2	
% of adults underinsured	8.1	
% of children with no health insurance	8.7	
% of children underinsured	17.3	
% of adults with Medicaid	9.7	
Emergency departments per 1M pop.	15	
Hospital closures in 2011	1	
Staffed inpatient beds per 100,000 pop.	325.0	
Hospital occupancy rate per 100 staffed beds	62.1	
Psychiatric care beds per 100,000 pop.	25.1	
Median minutes from ED arrival to ED departure for admitted patients	270	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B+
Lawyers per 10,000 pop.	14.1	
Lawyers per physician	0.5	
Lawyers per emergency physician	8.9	
ATRA judicial hellholes (range 2 to -6)	1	
Malpractice award payments/ 100,000 pop.	1.5	
Average malpractice award payments	\$273,667	
Databank reports per 1,000 physicians	14.8	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	3.1	
Average medical liability insurance premium for primary care physicians	\$16,458	
Average medical liability insurance premium for specialists	\$58,665	
Presence of pretrial screening panels	Voluntary	
Pretrial screening panel's findings admissible as evidence	No	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes, No offset	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	Yes	
QUALITY & PATIENT SAFETY ENVIRONMENT		B-
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	36.3	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2006)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	No	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	84.2	
% of hospitals with electronic medical records	96.7	
% of patients with AMI given PCI within 90 minutes of arrival	95	
Median time to transfer to another facility for acute coronary intervention	61	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	66.2	
% of hospitals having or planning to develop a diversity strategy/plan	56.9	
PUBLIC HEALTH & INJURY PREVENTION		C-
Traffic fatalities per 100,000 pop.	8.4	
Bicyclist fatalities per 100,000 cyclists	5.1	
Pedestrian fatalities per 100,000 pedestrians	3.7	
% of traffic fatalities alcohol related	35	
Front occupant restraint use (%)	84.1	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	4	
Distracted driving legislation (range 0-4)	1	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	80.6	
% of adults aged 65+ who received flu vaccine in past year	61.4	
% of adults aged 65+ who ever received pneumococcal vaccine	69.9	
Fatal occupational injuries per 1M workers	26.9	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	16.6	
Unintentional fall-related fatal injuries per 100,000 pop.	10.1	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.1	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	14.5	
Total injury prevention funds per 1,000 pop.	\$339.15	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	Yes	
Gun-purchasing legislation (range 0-6)	1	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	7.7	
Binge alcohol drinkers, % of adults	20.1	
Current smokers, % of adults	25.1	
% of adults with BMI >30	29.7	
% of children obese	17.4	
Cardiovascular disease disparity ratio	2.2	
HIV diagnoses disparity ratio	11.9	
Infant mortality disparity ratio	3.1	
DISASTER PREPAREDNESS		F*
Per capita federal disaster preparedness funds	\$4.05	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	1.5	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	388.4	
ICU beds per 1M pop.	387.4	
Burn unit beds per 1M pop.	10.3	
Verified burn centers per 1M pop.	0.5	
Physicians in ESAR-VHP per 1M pop.	3.0	
Nurses in ESAR-VHP per 1M pop.	232.3	
Behavioral health professionals in ESAR-VHP per 1M pop.	16.3	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	36.2	

NR = Not reported
N/A = Not applicable

Oklahoma

Oklahoma improved from 50th to 37th in the nation overall, largely due to major improvements in *Disaster Preparedness*. Unfortunately, the state failed to improve upon its poor grade in *Access to Emergency Care* and fell further behind in *Public Health and Injury Prevention*.

Strengths. Oklahoma's *Disaster Preparedness* grade benefitted substantially from having implemented a statewide medical communication system with one layer of redundancy and a statewide syndromic surveillance system, as well as having significantly increased bed surge capacity (from 444.8 to 686.3 per 1 million people) and intensive care unit beds (312.5 to 412.6 per 1 million). The state passed Uniform Emergency Volunteer Health Professional Act model legislation to provide additional liability protections to health care workers during an event. The Oklahoma Medical Reserve Corps played a crucial role in rescue, shelter and recovery in the devastating EF5 tornadoes in Oklahoma in spring 2013.

Oklahoma continues to support a favorable *Medical Liability Environment*, having established and maintained a medical liability cap on non-economic damages, collateral source rule reform, and case certification by expert witnesses. As a result, Oklahoma has medical liability insurance premiums below the national average for both primary care physicians and specialists and average malpractice award payments that are 18% lower than the average across the states.

While *Access to Emergency Care* in Oklahoma overall is poor, there were some highlights. The state ranks among the top 10 for many aspects of its hospital capacity, including emergency departments (ED) (30.7 per 1 million people), psychiatric care beds (46.7 per 100,000 people), and low hospital occupancy rate (57.3 per 100 staffed beds). As a result, it has the eighth lowest ED wait time: 211 minutes from ED arrival to ED departure for admitted patients. Some hos-

pitals in the state are building freestanding EDs that could continue to expand timely access to emergency care.

Challenges. With regard to *Access to Emergency Care*, Oklahoma continues to struggle with shortages of emergency physicians, specialists, primary care providers, mental health providers, and registered nurses. The state has made little-to-no progress in recruiting and retaining health care providers since the 2009 Report Card, despite reducing the proportion of children without health insurance by nearly half and increasing Medicaid fee levels for office visits.

Oklahoma's *Quality and Patient Safety Environment* is lacking a number of policies and procedures aimed at improving emergency response. Survey data indicate that the state lacks a uniform system for providing pre-arrival instructions that could offer an opportunity for lifesaving care while awaiting an emergency medical services (EMS) response, as well as destination policies for ST-elevation myocardial infarction (STEMI) and stroke patients, although emergency physicians report that new state EMS protocols are supporting improvements in these areas. In addition, while Oklahoma supports the only real-time prescription drug monitoring program in the country, the state's hospitals fall well below average in

adoption of electronic medical records and computerized practitioner order entry.

Public Health and Injury Prevention efforts in Oklahoma continue to lag behind the nation overall. Oklahoma has failed to pass smoke-free bans for restaurants, bars, or worksites, despite having the fourth highest rate of adult smokers (26.1%). The state also has among the 10 highest rates of fire- and burn-related deaths, poisoning-related deaths, which includes drug overdoses, and traffic fatalities.

Recommendations. Oklahoma should match its outstanding hospital capacity with an adequate physician workforce to improve overall *Access to Emergency Care*.

Oklahoma must address the health care workforce shortage to meet the needs of its citizens.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	40	F	40	F
Quality & Patient Safety Environment	46	D-	37	D+
Medical Liability Environment	10	B-	17	C+
Public Health & Injury Prevention	36	D	40	D-
Disaster Preparedness	45	D-	6	B-
OVERALL	50	D	37	D+

The state must work to recruit and retain specialists, emergency physicians, primary and mental health care providers, and registered nurses. The Oklahoma Physician Manpower Commission is taking steps to address some of these problems through enhanced incentive programs for physicians, physician assistants, and nurses. They are currently focusing on filling primary care openings, especially in the rural areas of the state. A new emergency medicine residency program has graduated three classes with 94% of residents staying to practice in Oklahoma, and another emergency medicine residency program will open next year.

Oklahoma patients would also benefit from an increase in access to trauma centers and accredited chest pain centers: Currently, only 73% of the population is within 60 minutes of a level I or II trauma center, and the state has only 0.3 accredited chest pain centers per 1 million people. Increased access is important in light of the above mentioned *Public Health and Injury Prevention* concerns. Passing legislation that bans handheld cellphone use and texting for all drivers and requiring helmets for all motorcycle riders may help reduce Oklahoma's above-average rates of traffic fatalities for vehicle occupants, bicyclists, and pedestrians.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	7.3	
Emergency physicians per 100,000 pop.	8.6	
Neurosurgeons per 100,000 pop.	2.1	
Orthopedists and hand surgeon specialists per 100,000 pop.	7.3	
Plastic surgeons per 100,000 pop.	1.3	
ENT specialists per 100,000 pop.	2.6	
Registered nurses per 100,000 pop.	747.6	
Additional primary care FTEs needed per 100,000 pop.	5.2	
Additional mental health FTEs needed per 100,000 pop.	1.2	
% of children able to see provider	94.5	
Level I or II trauma centers per 1M pop.	1.0	
% of population within 60 minutes of Level I or II trauma center	73.0	
Accredited chest pain centers per 1M pop.	0.3	
% of population with an unmet need for substance abuse treatment	8.4	
Pediatric specialty centers per 1M pop.	3.1	
Physicians accepting Medicare per 100 beneficiaries	2.0	
Medicaid fee levels for office visits as a % of the national average	130.6	
% change in Medicaid fees for office visits (2007 to 2012)	24.5	
% of adults with no health insurance	20.3	
% of adults underinsured	9.3	
% of children with no health insurance	6.4	
% of children underinsured	14.6	
% of adults with Medicaid	6.8	
Emergency departments per 1M pop.	30.7	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	359.6	
Hospital occupancy rate per 100 staffed beds	57.3	
Psychiatric care beds per 100,000 pop.	46.7	
Median minutes from ED arrival to ED departure for admitted patients	211	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		C+
Lawyers per 10,000 pop.	17.0	
Lawyers per physician	0.8	
Lawyers per emergency physician	19.7	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	3.1	
Average malpractice award payments	\$254,431	
Databank reports per 1,000 physicians	42.9	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	10.3	
Average medical liability insurance premium for primary care physicians	\$12,809	
Average medical liability insurance premium for specialists	\$49,898	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	\$250,001 -350,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes, No offset	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		D+
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	18.6	
Adverse event reporting required	No	
% of counties with E-911 capability	83.5	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	No	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	4	
% of hospitals with computerized practitioner order entry	60.7	
% of hospitals with electronic medical records	84.4	
% of patients with AMI given PCI within 90 minutes of arrival	93	
Median time to transfer to another facility for acute coronary intervention	66	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	65.8	
% of hospitals having or planning to develop a diversity strategy/plan	46.8	
PUBLIC HEALTH & INJURY PREVENTION		D-
Traffic fatalities per 100,000 pop.	15.7	
Bicyclist fatalities per 100,000 cyclists	7.0	
Pedestrian fatalities per 100,000 pedestrians	6.8	
% of traffic fatalities alcohol related	36	
Front occupant restraint use (%)	85.9	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	5	
Distracted driving legislation (range 0-4)	0	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	77.3	
% of adults aged 65+ who received flu vaccine in past year	62.4	
% of adults aged 65+ who ever received pneumococcal vaccine	72.8	
Fatal occupational injuries per 1M workers	47.0	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	22.0	
Unintentional fall-related fatal injuries per 100,000 pop.	11.2	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	2.0	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.4	
Unintentional poisoning-related fatal injuries per 100,000 pop.	17.6	
Total injury prevention funds per 1,000 pop.	\$437.88	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	Yes	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	7.6	
Binge alcohol drinkers, % of adults	16.5	
Current smokers, % of adults	26.1	
% of adults with BMI >30	31.1	
% of children obese	17.4	
Cardiovascular disease disparity ratio	1.8	
HIV diagnoses disparity ratio	6.3	
Infant mortality disparity ratio	2.4	
DISASTER PREPAREDNESS		B-
Per capita federal disaster preparedness funds	\$5.33	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes, No	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.1	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	Local-level	
Long-term care and nursing home facilities must have written disaster plan	No	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	686.3	
ICU beds per 1M pop.	412.6	
Burn unit beds per 1M pop.	8.7	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	15.2	
Nurses in ESAR-VHP per 1M pop.	239.3	
Behavioral health professionals in ESAR-VHP per 1M pop.	26.7	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	41.3	

NR = Not reported
N/A = Not applicable

Oregon

Oregon improved slightly in almost every category moving from 47th to 32nd place overall, but the state continues to receive low grades in *Access to Emergency Care* and *Disaster Preparedness*.

Strengths. Oregon's *Quality and Patient Safety Environment* has seen significant improvement since the 2009 Report Card, largely due to improvements in hospital systems. The state ranks among the best 10 in the nation with regard to hospital adoption of electronic medical records (96.7%), the proportion of hospitals collecting data on patients' race and ethnicity and primary language (83.1%), and percentage of hospitals planning to develop a diversity strategy (58.5%). The state has also implemented changes since 2009 that contributed to the overall category grade, including requiring adverse event reporting and development of stroke and ST-elevation myocardial infarction (STEMI) systems of care.

Oregon continues to rank among the best with regard to *Public Health and Injury Prevention*, benefiting from low rates of traffic fatalities that are supported by strong traffic safety legislation. The state supports a motorcycle helmet law; distracted driving laws that ban handheld cellphone use and texting for all drivers; and primary enforcement of adult seatbelt laws, which likely contribute to the third highest seatbelt use rate (96.6%) and 10th lowest traffic fatality rate (6.5 per 100,000 people) in the nation.

Oregon also benefits from having the lowest rate of childhood obesity (9.9%) and moderately low rates of smoking and binge drinking among adults.

Challenges. *Access to Emergency Care* remains a major challenge for people of Oregon, especially with regard to access to care for children. Despite the state having a below-average rate of uninsured children (7.4%), more than one in five children who have insurance is underinsured, with unreasonable costs being reported by their

parents. Only 93.7% of children can see a provider when needed, placing Oregon third worst in the nation for this measure. It is also last in the nation for the number of staffed inpatient beds (204.9 per 100,000 people) and has the fourth fewest psychiatric care beds (8.7 per 100,000 people), representing a significant decline from the 28.8 psychiatric care beds per 100,000 reported in 2009.

Oregon continues to lack many *Disaster Preparedness* practices and policies that other states have implemented. For instance, the state has not incorporated patients dependent on medication for chronic conditions, patients dependent on dialysis, or patients on psychotropic medication in its medical response plan. Oregon also lacks a statewide patient-tracking system and has the sixth lowest bed surge capacity in the nation (304.2 per 1 million people). Its capacity for handling a disaster event is below the national average with regard to burn unit beds (4.1 per 1 million people) and intensive care unit beds (257.5 per 1 million people).

Oregon continues to support an unfavorable *Medical Liability Environment*. The state enacted legislation in 2013 that facilitates voluntary discussions between providers and injured patients and allows for early offers of compensation for adverse medical events. However, few other reforms are in place and the state's average malpractice award

payment skyrocketed from \$251,695 in the previous Report Card to \$371,605, representing a 48% increase, despite little change in the number of malpractice award payments (1.3 per 100,000 people).

Recommendations. Oregon must take immediate action to address *Access to Emergency Care* for all, but especially for its most vulnerable populations. The state should work to increase access to primary care and specialist care for children, the availability of trauma centers and accredited chest pain

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	41	F	35	F
Quality & Patient Safety Environment	36	D+	21	C+
Medical Liability Environment	37	D-	35	D
Public Health & Injury Prevention	9	B	3	A-
Disaster Preparedness	42	D	37	D-
OVERALL	47	D	32	D+

centers, and access to substance abuse treatment. While the state has a fair supply of emergency physicians, extremely low rates of staffed inpatient beds and psychiatric care beds contribute to crowding and boarding practices in the emergency department.

While Oregon fared well with regard to *Public Health and Injury Prevention*, the state must work to stop a troubling trend: Childhood immunizations have plummeted since the last Report Card (from 78.8% to 67.0%), as have influenza vaccination rates among the elderly (from 71.3% to 54.2%). Immunizations are a cost-effective, life-saving measure; failure to increase immunization rates could have a major negative impact on the overall emergency care system, draining already limited resources.

Oregon must create a more favorable *Medical Liability Environment* by implementing pretrial screening panels and expert witness rules that provide for case certification and require that experts are of the same specialty as the defendant. Oregon should also consider providing appropriate liability protections for care mandated by the Emergency Medical Treatment and Labor Act. A failure to do so could further discourage specialists from providing critical on-call services to emergency patients.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	14.3	
Emergency physicians per 100,000 pop.	17.5	
Neurosurgeons per 100,000 pop.	2.7	
Orthopedists and hand surgeon specialists per 100,000 pop.	10.0	
Plastic surgeons per 100,000 pop.	2.2	
ENT specialists per 100,000 pop.	3.7	
Registered nurses per 100,000 pop.	800.4	
Additional primary care FTEs needed per 100,000 pop.	2.3	
Additional mental health FTEs needed per 100,000 pop.	0.7	
% of children able to see provider	93.7	
Level I or II trauma centers per 1M pop.	1.3	
% of population within 60 minutes of Level I or II trauma center	79.0	
Accredited chest pain centers per 1M pop.	1.0	
% of population with an unmet need for substance abuse treatment	8.9	
Pediatric specialty centers per 1M pop.	2.1	
Physicians accepting Medicare per 100 beneficiaries	3.8	
Medicaid fee levels for office visits as a % of the national average	103.9	
% change in Medicaid fees for office visits (2007 to 2012)	32.6	
% of adults with no health insurance	15.7	
% of adults underinsured	7.9	
% of children with no health insurance	7.4	
% of children underinsured	20.1	
% of adults with Medicaid	9.6	
Emergency departments per 1M pop.	15.4	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	204.9	
Hospital occupancy rate per 100 staffed beds	62.3	
Psychiatric care beds per 100,000 pop.	8.7	
Median minutes from ED arrival to ED departure for admitted patients	234	
State collects data on diversion	NR	
MEDICAL LIABILITY ENVIRONMENT		D
Lawyers per 10,000 pop.	13.3	
Lawyers per physician	0.5	
Lawyers per emergency physician	7.6	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.3	
Average malpractice award payments	\$371,605	
Databank reports per 1,000 physicians	22.5	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	6.7	
Average medical liability insurance premium for primary care physicians	\$8,230	
Average medical liability insurance premium for specialists	\$39,030	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	No	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Partially	

NR = Not reported
N/A = Not applicable

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C+
Funding for quality improvement within the EMS system	NR	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	8.2	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	NR	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	NR	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	NR	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	NR	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	83.6	
% of hospitals with electronic medical records	96.7	
% of patients with AMI given PCI within 90 minutes of arrival	91	
Median time to transfer to another facility for acute coronary intervention	51	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	83.1	
% of hospitals having or planning to develop a diversity strategy/plan	58.5	
PUBLIC HEALTH & INJURY PREVENTION		A-
Traffic fatalities per 100,000 pop.	6.5	
Bicyclist fatalities per 100,000 cyclists	1.4	
Pedestrian fatalities per 100,000 pedestrians	3.0	
% of traffic fatalities alcohol related	35	
Front occupant restraint use (%)	96.6	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	67.0	
% of adults aged 65+ who received flu vaccine in past year	54.2	
% of adults aged 65+ who ever received pneumococcal vaccine	76.0	
Fatal occupational injuries per 1M workers	26.1	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	19.5	
Unintentional fall-related fatal injuries per 100,000 pop.	13.9	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.7	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	10.1	
Total injury prevention funds per 1,000 pop.	\$283.94	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	1.5	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	4.9	
Binge alcohol drinkers, % of adults	16.5	
Current smokers, % of adults	19.7	
% of adults with BMI >30	26.7	
% of children obese	9.9	
Cardiovascular disease disparity ratio	1.6	
HIV diagnoses disparity ratio	5.8	
Infant mortality disparity ratio	2.1	
DISASTER PREPAREDNESS		D-
Per capita federal disaster preparedness funds	\$5.82	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes, No	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	3.0	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	County- or city-wide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	304.2	
ICU beds per 1M pop.	257.5	
Burn unit beds per 1M pop.	4.1	
Verified burn centers per 1M pop.	0.3	
Physicians in ESAR-VHP per 1M pop.	15.9	
Nurses in ESAR-VHP per 1M pop.	234.1	
Behavioral health professionals in ESAR-VHP per 1M pop.	7.4	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	43.4	

Pennsylvania

Pennsylvania has made great strides in *Access to Emergency Care* since the 2009 Report Card, moving from 23rd to 2nd place; however, unmet liability protections for emergency care providers, uncertainty regarding the phase-out of the state's liability insurance program, and declining performance in *Disaster Preparedness* continue to threaten the emergency care environment.

Strengths. Pennsylvania's *Access to Emergency Care* has improved greatly since the 2009 Report Card. While a variety of sources indicate a mixed picture of the current and future adequacy of the state's supply of health care providers, data in this report indicate below-average rates of health professional shortages, though shortages persist among some specialties. Reports of an aging physician workforce could exacerbate those shortages as the percentage of patients with insurance, which has already increased since the 2009 Report Card, continues to grow under the Affordable Care Act. Also contributing to the improvement in this category was a 79.7% increase in Medicaid fee levels for office visits from 2007 to 2012, although the state's fee levels are still only 80% of the national average. Pennsylvania has a relatively low proportion of adults with an unmet need for substance abuse treatment (7.9%) and below-average rates of underinsurance for both adults (7.4%) and children (15.3%).

Pennsylvania continues to rank among the top in the nation with regard to the *Quality and Patient Safety Environment*, having statewide systems and policies in place for ST-elevation myocardial infarction, stroke, and trauma patients. It also supports a large number of emergency medicine residents (48.6 per 1 million population), representing the fourth highest rate in the nation.

Challenges. While some aspects of the state's *Medical Liability Environment* have improved with the elimination of venue

shopping, the adoption of a certificate of merit, and expert witness qualifications, Pennsylvania has not kept up with improvements seen in other states. It still has some of the highest average medical liability insurance premiums for primary care physicians (\$20,890) and specialists (\$88,865) in the nation. The state also lacks additional protections for care mandated by the Emergency Medical Treatment and Labor Act (EMTALA). Finally, the eventual statutorily mandated phase-out of the state's Medical Care Availability and Reduction of Error Act (MCARE) liability insurance program, which could require physicians and hospitals to assume the program's \$1.3 billion unfunded liability, continues to cast a dark cloud over providers.

Pennsylvania continues to face challenges with regard to *Public Health and Injury Prevention*, falling in the bottom third of states with regard to infant mortality rates (7.3 deaths per 1,000 live births) and unintentional poisoning-related deaths (13.4 deaths per 100,000 people). The state has also failed to pass smoking bans in bars and has only limited bans in restaurants, despite having above average rates of smoking among adults (22.4%).

Pennsylvania's grade for *Disaster Preparedness* was heavily affected by declines in bed surge capacity, intensive care unit beds, burn unit beds, and the proportion of nurses who reported receiving disaster preparedness training, compared to the 2009 Report Card. In addition, while Pennsylvania reported significantly higher rates of physicians and nurses registered in the Emergency System for Volunteer Health Professionals than in 2009, the state did not keep pace with the nation, now reporting rates less than half the national averages.

Recommendations. The state must work to adopt a "clear and convincing" standard for EMTALA-related care, which would require that evidence be provided to show

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	23	C-	2	B+
Quality & Patient Safety Environment	4	A	3	A
Medical Liability Environment	38	D-	43	F
Public Health & Injury Prevention	17	B-	21	C-
Disaster Preparedness	4	A	17	C+
OVERALL	8	C+	6	C+

that emergency care personnel's actions were grossly negligent under the given circumstances. Additionally, Pennsylvania needs to phase out the MCARE program in a way that will not negatively affect the state's already high liability premiums.

While Pennsylvania has operationalized a prescription drug monitoring program, the state does not monitor drug schedules II to V and has not implemented a system for real-time access of this information by providers. Doing so would further strengthen the state's *Quality and Patient Safety Environment*.

Boarding and crowding in the emergency department (ED) and the negative effects that these issues have on patient care and outcomes continue to be major concerns in Pennsylvania, despite its improvement in *Access to Emergency Care* overall. While state reports indicate that the number of ED visits have increased, Pennsylvania has seen a decrease in the number of EDs, staffed inpatient beds, and psychiatric care beds per population and continues to have a higher-than-average hospital occupancy rate. The commonwealth should adopt a statewide psychiatric bed registry and work closely with hospitals to minimize boarding of admitted patients in EDs.

ACCESS TO EMERGENCY CARE		B+
Board-certified emergency physicians per 100,000 pop.	11.9	
Emergency physicians per 100,000 pop.	15.5	
Neurosurgeons per 100,000 pop.	2.4	
Orthopedists and hand surgeon specialists per 100,000 pop.	10.4	
Plastic surgeons per 100,000 pop.	2.4	
ENT specialists per 100,000 pop.	4.0	
Registered nurses per 100,000 pop.	1025.9	
Additional primary care FTEs needed per 100,000 pop.	0.7	
Additional mental health FTEs needed per 100,000 pop.	0.3	
% of children able to see provider	96.6	
Level I or II trauma centers per 1M pop.	2.1	
% of population within 60 minutes of Level I or II trauma center	99.3	
Accredited chest pain centers per 1M pop.	2.2	
% of population with an unmet need for substance abuse treatment	7.9	
Pediatric specialty centers per 1M pop.	3.3	
Physicians accepting Medicare per 100 beneficiaries	3.7	
Medicaid fee levels for office visits as a % of the national average	79.7	
% change in Medicaid fees for office visits (2007 to 2012)	79.7	
% of adults with no health insurance	11.7	
% of adults underinsured	7.4	
% of children with no health insurance	7.6	
% of children underinsured	15.3	
% of adults with Medicaid	9.8	
Emergency departments per 1M pop.	10.7	
Hospital closures in 2011	1	
Staffed inpatient beds per 100,000 pop.	356.6	
Hospital occupancy rate per 100 staffed beds	68.4	
Psychiatric care beds per 100,000 pop.	30.4	
Median minutes from ED arrival to ED departure for admitted patients	275	
State collects data on diversion	N/A	
MEDICAL LIABILITY ENVIRONMENT		F
Lawyers per 10,000 pop.	17.8	
Lawyers per physician	0.5	
Lawyers per emergency physician	11.5	
ATRA judicial hellholes (range 2 to -6)	-1	
Malpractice award payments/ 100,000 pop.	4.5	
Average malpractice award payments	\$327,007	
Databank reports per 1,000 physicians	32.2	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	Yes	
Number of insurers writing medical liability policies per 1,000 physicians	3	
Average medical liability insurance premium for primary care physicians	\$20,890	
Average medical liability insurance premium for specialists	\$88,865	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		A
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	48.6	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2006)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	76.8	
% of hospitals with electronic medical records	93.2	
% of patients with AMI given PCI within 90 minutes of arrival	93	
Median time to transfer to another facility for acute coronary intervention	68	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	60.1	
% of hospitals having or planning to develop a diversity strategy/plan	44.4	
PUBLIC HEALTH & INJURY PREVENTION		C-
Traffic fatalities per 100,000 pop.	9.1	
Bicyclist fatalities per 100,000 cyclists	2.7	
Pedestrian fatalities per 100,000 pedestrians	2.8	
% of traffic fatalities alcohol related	36	
Front occupant restraint use (%)	83.8	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	5	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	2	
% of children immunized, aged 19-35 months	75.4	
% of adults aged 65+ who received flu vaccine in past year	62.6	
% of adults aged 65+ who ever received pneumococcal vaccine	73.0	
Fatal occupational injuries per 1M workers	32.0	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	17.9	
Unintentional fall-related fatal injuries per 100,000 pop.	11.2	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.2	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	13.4	
Total injury prevention funds per 1,000 pop.	\$263.40	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	Yes	
Gun-purchasing legislation (range 0-6)	2.5	
Anti-smoking legislation (range 0-3)	1	
Infant mortality rate per 1,000 live births	7.3	
Binge alcohol drinkers, % of adults	18.3	
Current smokers, % of adults	22.4	
% of adults with BMI >30	28.6	
% of children obese	13.5	
Cardiovascular disease disparity ratio	2.0	
HIV diagnoses disparity ratio	13.3	
Infant mortality disparity ratio	2.4	
DISASTER PREPAREDNESS		C+
Per capita federal disaster preparedness funds	\$5.18	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	5.4	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	591.1	
ICU beds per 1M pop.	323.4	
Burn unit beds per 1M pop.	5.6	
Verified burn centers per 1M pop.	0.4	
Physicians in ESAR-VHP per 1M pop.	19.5	
Nurses in ESAR-VHP per 1M pop.	147.7	
Behavioral health professionals in ESAR-VHP per 1M pop.	5.7	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No, Yes	
Liability protections for health care workers during a disaster (range 0-4)	2	
% of RNs received disaster training	32.9	

NR = Not reported
N/A = Not applicable

Rhode Island

Rhode Island's overall decline from 2nd to 18th is a result of its failure to improve the *Medical Liability Environment* and to keep pace with other states improving upon their *Quality and Patient Safety Environment* and *Public Health and Injury Prevention* scores.

Strengths. Rhode Island continues to support strong *Disaster Preparedness* policies and procedures, which includes getting public health and emergency physician input during an Emergency Support Function 8 response and requiring all emergency medical services (EMS) personnel to be trained in disaster management and response. Rhode Island's burn center capacity, 1.0 burn centers per 1 million people, ranks second in the nation. The state also ranks in the top 10 for physicians, nurses, and behavioral health professionals registered in the Emergency System for Advanced Registration of Volunteer Health Professionals.

While Rhode Island's grade in *Public Health and Injury Prevention* worsened somewhat, the state continues to benefit from low rates of traffic fatalities, fatal occupational injuries, homicides, and suicides. The proportion of traffic fatalities due to alcohol has fallen significantly in the past 5 years. The state also has banned smoking in restaurants, bars, and worksites. Rhode Island has strengthened its adult seatbelt laws to include primary enforcement of the law.

While the *Quality and Patient Safety Environment* fell in comparison to other states, Rhode Island has a few noteworthy accomplishments in this arena. The state supports the second largest emergency medicine resident population, with 70.5 per 1 million people, and ranks first with regard to the proportion of hospitals developing a diversity strategy or plan (62.5%) and the proportion of patients with acute myocardial infarction given percutaneous coronary intervention within 90 minutes of arrival (98%).

Challenges. Rhode Island's *Medical Liability Environment* continues to be among the worst in the nation due to its inability to

pass any meaningful liability reform and its increasing average malpractice award payments. The state lacks pretrial screening panels; apology inadmissibility laws, which permit physicians to apologize to patients without fear of that apology being used as evidence against them in a malpractice suit; and case certification by an expert witness to confirm that medical liability cases have merit. Average medical liability insurance premiums for primary care physicians and specialists are well above the average across the states. Insurance premiums for specialists (\$82,426) are a particular concern at more than 43% above the national average (\$57,459). At the same time, the average malpractice award payment has increased markedly from \$260,388 in the 2009 Report Card to \$355,199.

The *Quality and Patient Safety Environment* grade has suffered for Rhode Island, because of new indicators included in this Report Card and the state not keeping pace with improvements and processes implemented in other states. For instance, it does not have funding

for quality improvement of the EMS system and no longer has a funded state EMS medical director. The state also lacks a uniform system for providing pre-arrival instructions, field trauma triage protocols or guidelines, and a statewide trauma registry.

Access to Emergency Care in Rhode Island shows a mixture of results, with high rates of emergency physicians and specialists coupled with limited treatment centers and hospital resources. Rhode Island has a low rate of emergency departments (ED) per capita (9.5 per 1 million people) and a high hospital occupancy rate (72.5 per 100 staffed beds). Combined with a severe decrease in the availability of psychiatric care beds since 2009 (from 37.2 to 25.9 per 100,000), these factors all likely contribute to the seventh longest ED wait times in the nation (343 minutes from ED arrival to ED departure for admitted patients).

Recommendations. Rhode Island must take action to improve its failing *Medical*

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	10	B-	10	C
Quality & Patient Safety Environment	7	A	35	D+
Medical Liability Environment	49	F	46	F
Public Health & Injury Prevention	8	B+	15	B
Disaster Preparedness	13	B+	9	B-
OVERALL	2	B-	18	C-

Liability Environment. While the state is home to many specialists, on-call specialist support is still at a critical juncture, and liability protections should be put in place to ensure a fair environment for providing care in emergency situations often involving high-risk patients. Such protections would help to encourage specialists to provide on-call services in the state. Rhode Island should also consider strengthening its expert witness rules to include case certification and require that expert witnesses be licensed to practice medicine in the state.

Rhode Island must also work to improve *Access to Emergency Care* by increasing the availability and accessibility of inpatient and psychiatric care beds and working with EDs to achieve shorter wait times in the ED. Increasing access to substance abuse treatment and outpatient mental health care might decrease the burden on an already overwhelmed emergency care system in this state with the seventh highest rate of poisoning-related deaths, which includes drug overdoses, and second highest rate of adults with an unmet need for substance abuse treatment. Financial barriers to care also persist in Rhode Island despite lower-than-average rates of uninsured adults and children, including Medicaid fee levels for office visits that are only 39.9% of the national average.

ACCESS TO EMERGENCY CARE C

Board-certified emergency physicians per 100,000 pop.	14.5
Emergency physicians per 100,000 pop.	22.5
Neurosurgeons per 100,000 pop.	2.9
Orthopedists and hand surgeon specialists per 100,000 pop.	14.5
Plastic surgeons per 100,000 pop.	2.5
ENT specialists per 100,000 pop.	3.3
Registered nurses per 100,000 pop.	1174.5
Additional primary care FTEs needed per 100,000 pop.	3.1
Additional mental health FTEs needed per 100,000 pop.	0.0
% of children able to see provider	96.2
Level I or II trauma centers per 1M pop.	1.0
% of population within 60 minutes of Level I or II trauma center	100.0
Accredited chest pain centers per 1M pop.	1.0
% of population with an unmet need for substance abuse treatment	10.7
Pediatric specialty centers per 1M pop.	1.9
Physicians accepting Medicare per 100 beneficiaries	4.0
Medicaid fee levels for office visits as a % of the national average	39.9
% change in Medicaid fees for office visits (2007 to 2012)	0.0
% of adults with no health insurance	13.8
% of adults underinsured	8.0
% of children with no health insurance	5.8
% of children underinsured	15.8
% of adults with Medicaid	12.9
Emergency departments per 1M pop.	9.5
Hospital closures in 2011	0
Staffed inpatient beds per 100,000 pop.	311.7
Hospital occupancy rate per 100 staffed beds	72.5
Psychiatric care beds per 100,000 pop.	25.9
Median minutes from ED arrival to ED departure for admitted patients	343
State collects data on diversion	Yes

MEDICAL LIABILITY ENVIRONMENT F

Lawyers per 10,000 pop.	17.3
Lawyers per physician	0.4
Lawyers per emergency physician	7.7
ATRA judicial hellholes (range 2 to -6)	1
Malpractice award payments/ 100,000 pop.	3.2
Average malpractice award payments	\$355,199
Databank reports per 1,000 physicians	30.1
Provider apology is inadmissible as evidence	No
Patient compensation fund	No
Number of insurers writing medical liability policies per 1,000 physicians	12.1
Average medical liability insurance premium for primary care physicians	\$14,085
Average medical liability insurance premium for specialists	\$82,426
Presence of pretrial screening panels	No
Pretrial screening panel's findings admissible as evidence	N/A
Periodic payments	Upon request
Medical liability cap on non-economic damages	None
Additional liability protection for EMTALA-mandated emergency care	No
Joint and several liability abolished	No

Collateral source rule, provides for awards to be offset	Yes
State provides for case certification	No
Expert witness must be of the same specialty as the defendant	Yes
Expert witness must be licensed to practice medicine in the state	No

QUALITY & PATIENT SAFETY ENVIRONMENT D+

Funding for quality improvement within the EMS system	No
Funded state EMS medical director	No
Emergency medicine residents per 1M pop.	70.5
Adverse event reporting required	Yes
% of counties with E-911 capability	100.0
Uniform system for providing pre-arrival instructions	No
CDC guidelines are basis for state field triage protocols	No protocols
State has or is working on a stroke system of care	NR
Triage and destination policy in place for stroke patients	Yes
State has or is working on a PCI network or a STEMI system of care	NR
Triage and destination policy in place for STEMI patients	Yes
Statewide trauma registry	No
Triage and destination policy in place for trauma patients	Yes
Prescription drug monitoring program (range 0-4)	2
% of hospitals with computerized practitioner order entry	81.8
% of hospitals with electronic medical records	100.0
% of patients with AMI given PCI within 90 minutes of arrival	98
Median time to transfer to another facility for acute coronary intervention	64
% of patients with AMI who received aspirin within 24 hours	99
% of hospitals collecting data on race/ethnicity and primary language	62.5
% of hospitals having or planning to develop a diversity strategy/plan	62.5

PUBLIC HEALTH & INJURY PREVENTION B

Traffic fatalities per 100,000 pop.	5.1
Bicyclist fatalities per 100,000 cyclists	2.1
Pedestrian fatalities per 100,000 pedestrians	4.2
% of traffic fatalities alcohol related	41
Front occupant restraint use (%)	80.4
Helmet use required for all motorcycle riders	No
Child safety seat/seat belt legislation (range 0-10)	8
Distracted driving legislation (range 0-4)	2
Graduated drivers' license legislation (range 0-5)	1
% of children immunized, aged 19-35 months	79.5
% of adults aged 65+ who received flu vaccine in past year	56.6
% of adults aged 65+ who ever received pneumococcal vaccine	73.1
Fatal occupational injuries per 1M workers	14.1
Homicides and suicides (non-motor vehicle) per 100,000 pop.	14.0
Unintentional fall-related fatal injuries per 100,000 pop.	13.3
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.9

Unintentional firearm-related fatal injuries per 100,000 pop.	NR
Unintentional poisoning-related fatal injuries per 100,000 pop.	15.3
Total injury prevention funds per 1,000 pop.	\$805.84
Dedicated child injury prevention funding	No
Dedicated elderly injury prevention funding	Yes
Dedicated occupational injury prevention funding	No
Gun-purchasing legislation (range 0-6)	5
Anti-smoking legislation (range 0-3)	3
Infant mortality rate per 1,000 live births	7.1
Binge alcohol drinkers, % of adults	19.7
Current smokers, % of adults	20.0
% of adults with BMI >30	25.4
% of children obese	13.2
Cardiovascular disease disparity ratio	2.0
HIV diagnoses disparity ratio	7.2
Infant mortality disparity ratio	2.3

DISASTER PREPAREDNESS B-

Per capita federal disaster preparedness funds	\$11.60
State budget line item for health care surge	No
ESF-8 plan shared with all EMS and essential hospital personnel	Yes
Emergency physician input into the state planning process	Yes
Public health and emergency physician input during an ESF-8 response	Yes
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	18.8
Accredited by the Emergency Management Accreditation Program	No
Special needs patients in medical response plan	Yes
Patients on medication for chronic conditions in medical response plan	Yes
Medical response plan for supplying dialysis	Yes
Mental health patients in medical response plan	Yes
Medical response plan for supplying psychotropic medication	Yes
Mutual aid agreements with behavioral health providers	State-level
Long-term care and nursing home facilities must have written disaster plan	Yes
State able to report number of exercises with long-term care or nursing home facilities	No
"Just-in-time" training systems in place	NR
Statewide medical communication system with one layer of redundancy	Yes
Statewide patient tracking system	Yes
Statewide real-time or near real-time syndromic surveillance system	Yes
Real-time surveillance system in place for common ED presentations	Statewide
Bed surge capacity per 1M pop.	476.1
ICU beds per 1M pop.	319.0
Burn unit beds per 1M pop.	14.3
Verified burn centers per 1M pop.	1.0
Physicians in ESAR-VHP per 1M pop.	140.0
Nurses in ESAR-VHP per 1M pop.	1032.1
Behavioral health professionals in ESAR-VHP per 1M pop.	81.9
Strike teams or medical assistance teams	Yes
Disaster training required for essential hospital, EMS personnel	No, Yes
Liability protections for health care workers during a disaster (range 0-4)	1
% of RNs received disaster training	37.6

NR = Not reported
N/A = Not applicable

South Carolina

South Carolina has worsened with regard to its overall emergency care environment, largely due to failing grades in *Access to Emergency Care*, *Public Health and Injury Prevention*, and *Disaster Preparedness*.

Strengths. South Carolina continues to support one of the best *Medical Liability Environments* in the nation. The state has liability protections for the provision of care mandated by the Emergency Medical Treatment and Labor Act (EMTALA), a medical liability cap on non-economic damages, and expert witness rules requiring case certification. South Carolina has also seen a dramatic decrease in the average malpractice award since the 2009 Report Card, from \$218,482 to \$176,366, the 10th lowest in the nation.

While South Carolina's overall grade dropped slightly from 2009, its *Quality and Patient Safety* rank improved, owing in part to having a funded state emergency medical services (EMS) medical director and implementing destination policies for ST-elevation myocardial infarction (STEMI) and trauma patients that allow EMS providers to bypass local hospitals to bring patients to specialty centers. Additionally, the proportion of patients with acute myocardial infarction given percutaneous coronary intervention within 90 minutes of arrival increased from 55% to 97%. South Carolina's hospitals are also among the most likely to collect data on patients' race and ethnicity and primary language (76.1%) and to be developing a diversity strategy or plan (58%).

Challenges. South Carolina fell one place to rank last in the nation in *Public Health and Injury Prevention*. This is due to a combination of poor public health outcomes and the failure of the state to pass key legislation to improve upon those measures. For instance, while the state has some of the highest rates of traffic fatalities (15.2 per 100,000 people), bicyclist fatalities (13.5 per 100,000 bicyclists), and pedestrian fatalities (11.7 per 100,000 pedestrians), it

has not passed legislation banning texting or handheld cellphone use for all drivers. The state is also one of only seven to have failed to pass any antismoking legislation to discourage smoking and reduce second-hand smoke exposure in restaurants, bars, and worksites. South Carolina has some of the highest rates of adult and child obesity (30.8% and 21.5%, respectively).

Access to Emergency Care in South Carolina is impeded by growing financial barriers to care. Rates of uninsurance have increased dramatically for both adults and children since the last Report Card, resulting in South Carolina ranking 43rd and 48th on these measures, respectively. Uninsured rates for children have increased from 10.7% to 13.3%, and even those children with insurance face financial barriers to care, with 18.8% considered underinsured. Similarly, nearly one in five adults lack health insurance, with 9.2% of those who have insurance delaying or forgoing care due to cost. South Carolina's aging population also faces challenges in accessing care, with only 2.1 physicians accepting Medicare per 100 beneficiaries, the fifth lowest rate in the nation.

South Carolina faces challenges in *Disaster Preparedness* with regard to a lack of key policies and limited resources and hospital capacity for responding to a disaster or mass casualty event. The state has one of the lowest bed surge capacities (310.8 per 1 million people) and per capita rates of burn unit beds (2.1 per 1 million) in the nation. South Carolina does not require training in disaster management and response for hospital and EMS personnel, and only 31.9% of registered nurses reported receiving training related to disaster response. The state also lacks a Uniform Emergency Volunteer Health Practitioners Act or similar legislation that would provide appropriate protections for health care workers and the entities that sponsor them when responding to a disaster.

Recommendations. South Carolina must improve *Access to Emergency Care* for all by

A concerted effort is needed to ensure that the people of South Carolina have access to the emergency care that they need.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	45	F	45	F
Quality & Patient Safety Environment	16	B+	13	B-
Medical Liability Environment	5	A	7	B+
Public Health & Injury Prevention	50	F	51	F
Disaster Preparedness	34	C	46	F
OVERALL	26	C	33	D+

reducing financial barriers and increasing hospital and workforce capacity across the board. The state has a shortage of health care workers with below average rates of emergency physicians; neurosurgeons; orthopedists and hand surgeons; plastic surgeons; ear, nose, and throat specialists; and registered nurses. A concerted effort is needed to ensure that the people of South Carolina have access to the primary and specialty care that they need, especially with the expected increase in insured patients that will likely result from full implementation of the Patient Protection and Affordable Care Act.

While improving access to care, South Carolina must take immediate steps to address the poor public health outcomes of its population, specifically the high rates of traffic fatalities, infant mortality, and obesity. The state must work toward reducing these and other types of preventable deaths and chronic conditions that threaten to overburden the entire medical system.

South Carolina must work to maintain existing medical liability reforms. While its medical liability insurance premiums are below the national average for the states, they are slightly higher than in 2009. If this trend continues, insurance premiums may pose challenges to recruiting and retaining an adequate supply of on-call specialists and emergency physicians.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	9.1	
Emergency physicians per 100,000 pop.	12.9	
Neurosurgeons per 100,000 pop.	1.5	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.7	
Plastic surgeons per 100,000 pop.	1.8	
ENT specialists per 100,000 pop.	3.0	
Registered nurses per 100,000 pop.	912.6	
Additional primary care FTEs needed per 100,000 pop.	2.5	
Additional mental health FTEs needed per 100,000 pop.	0.7	
% of children able to see provider	95.5	
Level I or II trauma centers per 1M pop.	1.1	
% of population within 60 minutes of Level I or II trauma center	88.4	
Accredited chest pain centers per 1M pop.	3.4	
% of population with an unmet need for substance abuse treatment	9.4	
Pediatric specialty centers per 1M pop.	1.9	
Physicians accepting Medicare per 100 beneficiaries	2.1	
Medicaid fee levels for office visits as a % of the national average	NR	
% change in Medicaid fees for office visits (2007 to 2012)	NR	
% of adults with no health insurance	20.7	
% of adults underinsured	9.2	
% of children with no health insurance	13.3	
% of children underinsured	18.8	
% of adults with Medicaid	11.4	
Emergency departments per 1M pop.	13.1	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	293.9	
Hospital occupancy rate per 100 staffed beds	65.5	
Psychiatric care beds per 100,000 pop.	23.0	
Median minutes from ED arrival to ED departure for admitted patients	272	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B+
Lawyers per 10,000 pop.	11.2	
Lawyers per physician	0.5	
Lawyers per emergency physician	8.7	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	2.1	
Average malpractice award payments	\$176,366	
Databank reports per 1,000 physicians	27.7	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	Yes	
Number of insurers writing medical liability policies per 1,000 physicians	7.1	
Average medical liability insurance premium for primary care physicians	\$10,268	
Average medical liability insurance premium for specialists	\$43,743	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	No	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	Yes	
Joint and several liability abolished	Partially	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		B-
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	10.2	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	NR	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	60.0	
% of hospitals with electronic medical records	93.3	
% of patients with AMI given PCI within 90 minutes of arrival	97	
Median time to transfer to another facility for acute coronary intervention	59	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	76.1	
% of hospitals having or planning to develop a diversity strategy/plan	58.0	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	15.2	
Bicyclist fatalities per 100,000 cyclists	13.5	
Pedestrian fatalities per 100,000 pedestrians	11.7	
% of traffic fatalities alcohol related	46	
Front occupant restraint use (%)	86.0	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	6	
Distracted driving legislation (range 0-4)	0	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	74.1	
% of adults aged 65+ who received flu vaccine in past year	65.2	
% of adults aged 65+ who ever received pneumococcal vaccine	70.1	
Fatal occupational injuries per 1M workers	35.3	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	20.7	
Unintentional fall-related fatal injuries per 100,000 pop.	6.4	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.6	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.4	
Unintentional poisoning-related fatal injuries per 100,000 pop.	13.3	
Total injury prevention funds per 1,000 pop.	\$171.42	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	7.4	
Binge alcohol drinkers, % of adults	15.4	
Current smokers, % of adults	23.1	
% of adults with BMI >30	30.8	
% of children obese	21.5	
Cardiovascular disease disparity ratio	2.0	
HIV diagnoses disparity ratio	7.4	
Infant mortality disparity ratio	2.2	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$4.95	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.1	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	Local-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	NR	
"Just-in-time" training systems in place	County- or city-wide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	310.8	
ICU beds per 1M pop.	276.3	
Burn unit beds per 1M pop.	2.1	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	9.5	
Nurses in ESAR-VHP per 1M pop.	116.6	
Behavioral health professionals in ESAR-VHP per 1M pop.	29.0	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	1	
% of RNs received disaster training	31.9	

NR = Not reported
N/A = Not applicable

South Dakota

South Dakota has improved slightly in a number of categories since 2009 but continues to struggle to recruit an adequate health care workforce despite recent efforts to draw providers to rural areas of the state. The state has made little improvement in its *Quality and Patient Safety Environment*.

Strengths. While more work can be done, South Dakota has made admirable strides in *Disaster Preparedness*. The state has high per capita rates of physicians and nurses registered in the Emergency System for Advance Registration of Volunteer Health Professionals, and a relatively high proportion of registered nurses have received disaster preparedness training (42.0%). South Dakota also addresses the needs of mental health patients in its medical response plan and has mutual aid agreements in place with behavioral health providers for services during a disaster.

Although South Dakota scored poorly in *Access to Emergency Care*, emergency physicians in the state report a recent significant step forward in better meeting the needs of the state's rural population through the implementation of emergency medicine telemedicine programs. These programs allow small rural emergency departments (ED) to contact board-certified emergency physicians for immediate consultation and management services.

Little has changed in South Dakota's *Medical Liability Environment*. While the state lacks expert witness rules, it has a relatively large number of insurers writing medical liability policies (25.6 per 1,000 physicians) and the third lowest medical liability insurance premiums for primary care providers and specialists (\$4,478 and \$17,428, respectively). The state has maintained its medical liability cap on non-economic damages but has not abolished joint and several liability.

Challenges. While making a few notable improvements since the 2009 Report Card, South Dakota faces a number of challenges to improving its *Quality and Patient Safety Environment*. The state has not provided

funding for quality improvement of the emergency medical services (EMS) system or an EMS medical director. South Dakota also lacks a uniform system for providing pre-arrival instructions, which could be important in helping to save lives in a rural state, where EMS providers may have long response times. While South Dakota has implemented a statewide trauma registry and has worked to develop stroke and ST-elevation myocardial infarction (STEMI) systems of care, it still lacks destination policies for trauma and STEMI patients.

Access to Emergency Care in South Dakota has substantially worsened, with low levels of numerous types of providers and concerns regarding behavioral health care. The state ranks among the bottom 10 in per capita rates of emergency physicians and plastic surgeons and faces substantial unmet needs for both primary care and mental health providers. The number of psychiatric care beds in the state has plummeted since 2009, from 25.7 to 15.6 per 100,000 people, and the state has a large proportion of adults with an unmet need for substance abuse treatment (10.2%). Additionally, while South Dakota has the highest per capita rate of EDs and the lowest ED wait times in the nation, only 35.9% of the population is within 60 minutes of a level I or II trauma center.

Public Health and Injury Prevention continues to be a concern when considering South Dakota's limited access to primary and

emergency care. Immunization rates for children and pneumococcal vaccinations for older adults are among the worst in the nation. South Dakota also has a high rate of traffic fatalities (15.7 per 100,000 people) and the weakest child safety seat and seat-belt laws in the country, resulting in the second lowest seatbelt use rate (73.4%). The state has failed to pass legislation banning handheld cellphone use and texting for all drivers.

Recommendations. South Dakota must continue to work toward increasing the

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	12	C+	21	D+
Quality & Patient Safety Environment	51	F	47	F
Medical Liability Environment	21	C	19	C+
Public Health & Injury Prevention	48	F	41	D-
Disaster Preparedness	43	D	31	D+
OVERALL	41	D+	39	D+

health care workforce to meet the needs of its aging population. Addressing the need for primary care and mental health care providers across the state should be a priority in improving care for all. Although expansion of new emergency medicine telemedicine programs can be instrumental in improving access to quality care, South Dakota should continue to invest in health care education and recruitment programs to draw more providers to rural areas. The state should also address other concerns regarding preventable illness and death, such as improving vaccination rates through outreach and education.

Traffic fatalities are a major cause of preventable death and a driver of emergency care needs in South Dakota. The state should explore numerous avenues to address this issue, including strong seatbelt and child safety seat use laws, a requirement that all motorcycle riders wear helmets, and distracted-driving laws for all drivers.

Finally, South Dakota should build on the systems and infrastructure it has created for *Disaster Preparedness* to improve the *Quality and Patient Safety Environment*. Instituting a uniform system for pre-arrival instructions could improve emergency response outcomes, as could a destination policy for trauma patients.

ACCESS TO EMERGENCY CARE		D+
Board-certified emergency physicians per 100,000 pop.	6.0	
Emergency physicians per 100,000 pop.	7.6	
Neurosurgeons per 100,000 pop.	2.3	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.1	
Plastic surgeons per 100,000 pop.	1.4	
ENT specialists per 100,000 pop.	3.8	
Registered nurses per 100,000 pop.	1350.2	
Additional primary care FTEs needed per 100,000 pop.	3.6	
Additional mental health FTEs needed per 100,000 pop.	2.7	
% of children able to see provider	96.3	
Level I or II trauma centers per 1M pop.	2.4	
% of population within 60 minutes of Level I or II trauma center	35.9	
Accredited chest pain centers per 1M pop.	3.6	
% of population with an unmet need for substance abuse treatment	10.2	
Pediatric specialty centers per 1M pop.	3.6	
Physicians accepting Medicare per 100 beneficiaries	3.1	
Medicaid fee levels for office visits as a % of the national average	90.1	
% change in Medicaid fees for office visits (2007 to 2012)	7.1	
% of adults with no health insurance	14.8	
% of adults underinsured	6.3	
% of children with no health insurance	7.5	
% of children underinsured	17.2	
% of adults with Medicaid	9.2	
Emergency departments per 1M pop.	58.8	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	572.3	
Hospital occupancy rate per 100 staffed beds	63.9	
Psychiatric care beds per 100,000 pop.	15.6	
Median minutes from ED arrival to ED departure for admitted patients	176	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		C+
Lawyers per 10,000 pop.	9.1	
Lawyers per physician	0.4	
Lawyers per emergency physician	12.1	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.6	
Average malpractice award payments	\$235,926	
Databank reports per 1,000 physicians	27.6	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	25.6	
Average medical liability insurance premium for primary care physicians	\$4,478	
Average medical liability insurance premium for specialists	\$17,428	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	Yes, No offset	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		F
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	0	
Adverse event reporting required	Yes	
% of counties with E-911 capability	97.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	NR	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	No	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	83.0	
% of hospitals with electronic medical records	94.3	
% of patients with AMI given PCI within 90 minutes of arrival	90	
Median time to transfer to another facility for acute coronary intervention	60	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	50.0	
% of hospitals having or planning to develop a diversity strategy/plan	29.7	
PUBLIC HEALTH & INJURY PREVENTION		D-
Traffic fatalities per 100,000 pop.	15.7	
Bicyclist fatalities per 100,000 cyclists	0.0	
Pedestrian fatalities per 100,000 pedestrians	1.9	
% of traffic fatalities alcohol related	34	
Front occupant restraint use (%)	73.4	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	1	
Distracted driving legislation (range 0-4)	0	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	71.0	
% of adults aged 65+ who received flu vaccine in past year	68.3	
% of adults aged 65+ who ever received pneumococcal vaccine	67.1	
Fatal occupational injuries per 1M workers	72.1	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	19.0	
Unintentional fall-related fatal injuries per 100,000 pop.	15.6	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.6	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.5	
Unintentional poisoning-related fatal injuries per 100,000 pop.	3.8	
Total injury prevention funds per 1,000 pop.	NR	
Dedicated child injury prevention funding	NR	
Dedicated elderly injury prevention funding	NR	
Dedicated occupational injury prevention funding	NR	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	6.9	
Binge alcohol drinkers, % of adults	22.1	
Current smokers, % of adults	23.0	
% of adults with BMI >30	28.1	
% of children obese	13.4	
Cardiovascular disease disparity ratio	1.8	
HIV diagnoses disparity ratio	56.0	
Infant mortality disparity ratio	2.2	
DISASTER PREPAREDNESS		D+
Per capita federal disaster preparedness funds	\$13.56	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	No	
Public health and emergency physician input during an ESF-8 response	No	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	8.4	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	County- or city-wide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	1196.4	
ICU beds per 1M pop.	332.4	
Burn unit beds per 1M pop.	7.2	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	213.6	
Nurses in ESAR-VHP per 1M pop.	926.4	
Behavioral health professionals in ESAR-VHP per 1M pop.	21.6	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	2	
% of RNs received disaster training	42.0	

NR = Not reported
N/A = Not applicable

Tennessee

Tennessee has made notable progress in its *Disaster Preparedness* planning and response capacity, as well as admirable improvement to the *Medical Liability Environment*. However, the state is still challenged by high rates of preventable deaths and a reduced hospital capacity that are threatening *Access to Emergency Care*.

Strengths. Tennessee's *Medical Liability Environment* has improved to 11th best in the nation. The state has rules requiring expert witnesses of the same specialty as the defendant and requiring case certification by an expert witness. Tennessee also placed a medical liability cap on non-economic damages in 2011, which helped to improve its rank. Malpractice awards are also offset by collateral sources received by defendants in Tennessee; this helps to reduce the overall burden of malpractice award payments. Providers in the state also benefit from below-average medical liability insurance premiums.

Tennessee scores favorably compared to other states in *Disaster Preparedness*. The state shares its Emergency Support Function 8 or all-hazards plan with all emergency medical services and essential hospital personnel and its medical response plan includes special-needs patients, mental health patients, and patients dependent on psychotropic medications or medications for chronic disease. The state also has a better-than-average bed surge capacity (908.7 per 1 million people) and ranks among the top 20 in the rates of physicians and nurses registered in the Emergency System for Advance Registration of Volunteer Health Professionals.

Challenges. Tennessee faces increasing barriers in *Access to Emergency Care*, particularly for hospital capacity. For instance, the per capita rate of emergency departments has fallen from 13.8 per 1 million people in the 2009 Report Card to 10.5 per 1 million, well below the national average. Availability of psychiatric care beds has decreased (from 33.9 to 25.6 per 100,000 people), as has availability of staffed inpatient beds (from 414.0 to 352.5 per 100,000), which is likely the result of

closing two hospitals in 2011. While health insurance coverage rates are on par with the nation, Tennessee has the highest proportion of adults with insurance who report cost as a barrier to receiving needed care (10.2%).

Public Health and Injury Prevention also remains a challenge for Tennessee policymakers. The state has high rates of traffic fatalities (14.7 per 100,000 people) and bicyclist fatalities (8.7 per 100,000 cyclists), despite relatively strong seatbelt and child safety seat use laws and a law requiring helmets for all motorcycle riders. Tennessee also has some of the highest rates of both fire- or burn-related and poisoning-related deaths, which include drug overdoses (1.6 and 15.3 per 100,000 people, respectively), and the third highest infant mortality rate in the nation. Compounding this issue, the infant mortality disparity ratio (3.1) indicates that non-Hispanic Black infants have rates that are three times higher than the racial or ethnic group with the lowest rate. At the same time, however, Tennessee has the lowest cardiovascular disease disparity ratio and the lowest number of adults engaging in binge drinking (10.0%).

Tennessee's *Quality and Patient Safety Environment* has slipped somewhat, largely due to a failure to keep pace with other states, but also due to the addition of new indicators that better measure progress in this category. While significantly more hospitals in Tennessee have adopted computerized practitioner order entry, compared with the 2009 Report Card, the state ranks sixth worst in the nation on this measure (56.2%). The state's hospitals are below average in the proportion collecting data on race and ethnicity and primary language (52.0%) and having or planning to develop a diversity strategy (36.7%). While Tennessee requires certification from a state-approved program for 911 dispatchers who provide pre-arrival instructions, not all 911 dispatchers provide those instructions.

Recommendations. Tennessee's rapidly decreasing hospital capacity is a major concern with dramatic decreases in inpatient

Tennessee's rapidly decreasing hospital capacity is a major concern.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	21	C	26	D
Quality & Patient Safety Environment	13	B+	29	C
Medical Liability Environment	25	C-	11	B
Public Health & Injury Prevention	38	D-	37	D-
Disaster Preparedness	51	F	11	B-
OVERALL	33	C-	17	C-

and psychiatric care beds. The state must monitor diversion and emergency department wait times and act to minimize the impact of these reductions in infrastructure. Tennessee should also work to ensure that all adults are able to afford needed preventive and emergency health care.

Tennessee must act to reduce high rates of preventable deaths and lessen the racial and ethnic disparity in infant mortality. The state should explore the underlying causes of these issues and implement outreach and evidence-based education efforts to address them.

Additionally, Tennessee could significantly improve its *Quality and Patient Safety Environment* by working with hospitals and encouraging them to adopt technological advances at a faster pace. Tennessee should also explore options to implement a uniform system for providing pre-arrival instructions and destination policies for stroke and ST-elevation myocardial infarction (STEMI) patients.

The state must also protect and enhance medical liability reforms and enact protections for Emergency Medical Treatment and Labor Act (EMTALA)-mandated emergency care that will encourage specialists to provide critical on-call services to emergency patients.

ACCESS TO EMERGENCY CARE		D
Board-certified emergency physicians per 100,000 pop.	6.5	
Emergency physicians per 100,000 pop.	10.5	
Neurosurgeons per 100,000 pop.	2.3	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.9	
Plastic surgeons per 100,000 pop.	2.2	
ENT specialists per 100,000 pop.	3.6	
Registered nurses per 100,000 pop.	946.4	
Additional primary care FTEs needed per 100,000 pop.	1.1	
Additional mental health FTEs needed per 100,000 pop.	1.1	
% of children able to see provider	96.1	
Level I or II trauma centers per 1M pop.	1.4	
% of population within 60 minutes of Level I or II trauma center	92.1	
Accredited chest pain centers per 1M pop.	5.7	
% of population with an unmet need for substance abuse treatment	7.6	
Pediatric specialty centers per 1M pop.	2.3	
Physicians accepting Medicare per 100 beneficiaries	2.9	
Medicaid fee levels for office visits as a % of the national average	NR	
% change in Medicaid fees for office visits (2007 to 2012)	NR	
% of adults with no health insurance	15.5	
% of adults underinsured	10.2	
% of children with no health insurance	5.9	
% of children underinsured	15.5	
% of adults with Medicaid	10.7	
Emergency departments per 1M pop.	10.5	
Hospital closures in 2011	2	
Staffed inpatient beds per 100,000 pop.	352.5	
Hospital occupancy rate per 100 staffed beds	62.9	
Psychiatric care beds per 100,000 pop.	25.6	
Median minutes from ED arrival to ED departure for admitted patients	239	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B
Lawyers per 10,000 pop.	9.9	
Lawyers per physician	0.4	
Lawyers per emergency physician	9.4	
ATRA judicial hellholes (range 2 to -6)	1	
Malpractice award payments/ 100,000 pop.	2.2	
Average malpractice award payments	\$229,800	
Databank reports per 1,000 physicians	19.6	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	5.5	
Average medical liability insurance premium for primary care physicians	\$8,934	
Average medical liability insurance premium for specialists	\$38,238	
Presence of pretrial screening panels	Voluntary	
Pretrial screening panel's findings admissible as evidence	No	
Periodic payments	No	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	8.7	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	56.2	
% of hospitals with electronic medical records	91.8	
% of patients with AMI given PCI within 90 minutes of arrival	96	
Median time to transfer to another facility for acute coronary intervention	54	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	52.0	
% of hospitals having or planning to develop a diversity strategy/plan	36.7	
PUBLIC HEALTH & INJURY PREVENTION		D-
Traffic fatalities per 100,000 pop.	14.7	
Bicyclist fatalities per 100,000 cyclists	8.7	
Pedestrian fatalities per 100,000 pedestrians	7.4	
% of traffic fatalities alcohol related	32	
Front occupant restraint use (%)	87.4	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	73.9	
% of adults aged 65+ who received flu vaccine in past year	67.7	
% of adults aged 65+ who ever received pneumococcal vaccine	70.4	
Fatal occupational injuries per 1M workers	41.6	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	22.5	
Unintentional fall-related fatal injuries per 100,000 pop.	9.1	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.6	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.5	
Unintentional poisoning-related fatal injuries per 100,000 pop.	15.3	
Total injury prevention funds per 1,000 pop.	\$23.39	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	1	
Anti-smoking legislation (range 0-3)	1	
Infant mortality rate per 1,000 live births	7.9	
Binge alcohol drinkers, % of adults	10.0	
Current smokers, % of adults	23.0	
% of adults with BMI >30	29.2	
% of children obese	20.5	
Cardiovascular disease disparity ratio	1.1	
HIV diagnoses disparity ratio	10.4	
Infant mortality disparity ratio	3.1	
DISASTER PREPAREDNESS		B-
Per capita federal disaster preparedness funds	\$4.29	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.1	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	908.7	
ICU beds per 1M pop.	288.1	
Burn unit beds per 1M pop.	2.6	
Verified burn centers per 1M pop.	0.2	
Physicians in ESAR-VHP per 1M pop.	46.8	
Nurses in ESAR-VHP per 1M pop.	244.9	
Behavioral health professionals in ESAR-VHP per 1M pop.	8.7	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	44.0	

NR = Not reported
N/A = Not applicable

Texas

While Texas continues to provide a model *Medical Liability Environment* and has made great improvements in *Disaster Preparedness*, it still struggles with significant threats to *Public Health and Injury Prevention*, as well as severe financial barriers in *Access to Emergency Care*.

Strengths. Texas continues to be among the nation's leaders with its exemplary *Medical Liability Environment*. The state has the third lowest average malpractice award payments, and medical liability insurance premiums have continued to decline, especially for specialists whose premiums are on average \$11,000 less than in the previous Report Card. Texas placed a \$250,000 medical liability cap on non-economic damages, enacted additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act, and passed apology inadmissibility legislation.

Texas has made substantial improvements in *Disaster Preparedness* since 2009. The state has instituted state or regional strike teams or medical assistance teams and has begun enrolling health care professionals in the Emergency System for Advance Registration of Volunteer Health Professionals. The state has the second highest rate of registered nurses who have received training in emergency preparedness (51.8%) and requires training in disaster management for all emergency medical services (EMS) and hospital personnel—one of only five states to do so. Texas also has strong liability protections in place to protect volunteer health care workers responding to a disaster.

Challenges. Texas continues to struggle with numerous factors in *Access to Emergency Care*, including severe financial barriers to care. The state has some of the worst rates of health insurance for adults and children (26.9% and 15.4% uninsured, respectively), for which it ranks last and second to last in the nation. Additionally, Medicaid fee levels for office visits are only 77.3% of the national average, having

declined 4.9% since 2007. While hospital capacity is about average on many indicators, the state saw two hospital closures in 2011, which has likely contributed to the overall reduction in staffed inpatient beds from 319.8 to 292.7 per 100,000 people. Additionally, while Texas has been successful in attracting large numbers of emergency physicians and specialists over the past decade, performance on these indicators is overshadowed by the state's large and growing population and has resulted in very low per capita rates of many types of specialists, emergency physicians, and registered nurses. The Texas legislature recently increased graduate medical education funding, which should provide opportunity for increases in future workforce numbers.

Texas' grade in the *Quality and Patient Safety Environment* has declined, partially due to the inclusion of new indicators, but also due to a lack of funding for quality improvement of the EMS system and not having implemented important statewide policies. A multitude of EMS is necessary to cover this large state; as a result, the state has taken a regionalized approach to various EMS protocols. Nevertheless, Texas could investigate implementation of statewide practices and policies to set a standard of safe and effective care for emergency response, such as field trauma triage protocols; destination policies for stroke, ST-elevation myocardial infarction, or trauma patients; or a system for providing pre-arival instructions.

Texans suffer from a number of health risk factors and high rates of motor vehicle-related fatalities in the *Public Health and Injury Prevention* category. Texas has extremely high rates of obesity among adults and children (30.4% and 19.1%, respectively) and the highest cardiovascular disease disparity ratio in the nation: Non-Hispanic American Indians are 4.6 times more likely to have cardiovascular disease than the racial or ethnic group with the lowest likelihood. Texas also has high rates of bicyclist and pedestrian fatalities and the third highest rate of traffic fatalities related to alcohol (46.0%).

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	47	F	47	F
Quality & Patient Safety Environment	17	B-	42	F
Medical Liability Environment	2	A	2	A
Public Health & Injury Prevention	34	D	49	F
Disaster Preparedness	41	D+	21	C
OVERALL	29	C	38	D+

Recommendations. Texas must work to improve *Access to Emergency Care* for its population. Of great importance is lessening the state's severe financial barriers to care by improving access to adequate health insurance for both adults and children. Texas must also act to increase Medicaid fee levels so that they are at least on par with the national average. In addition, Texas must continue to support a strong *Medical Liability Environment* and attract additional emergency care providers, specialists, and Medicare providers to meet the needs of its growing and aging population.

Texas must address racial and ethnic health disparities in cardiovascular disease rates by improving access to primary health care services. Hospitals have taken an excellent first step in addressing health disparities by collecting data on patients' race and ethnicity and taking steps to implement diversity strategies or plans, but the state must do more to encourage healthy habits and reduce cardiovascular disease risk factors among populations at highest risk. Implementing evidence-based practices to reduce adult and child obesity rates and improving traffic safety may be important first steps in improving state scores.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	6.9	
Emergency physicians per 100,000 pop.	10.1	
Neurosurgeons per 100,000 pop.	1.6	
Orthopedists and hand surgeon specialists per 100,000 pop.	7.3	
Plastic surgeons per 100,000 pop.	2.4	
ENT specialists per 100,000 pop.	3.0	
Registered nurses per 100,000 pop.	721.3	
Additional primary care FTEs needed per 100,000 pop.	1.9	
Additional mental health FTEs needed per 100,000 pop.	0.8	
% of children able to see provider	94.6	
Level I or II trauma centers per 1M pop.	0.9	
% of population within 60 minutes of Level I or II trauma center	82.4	
Accredited chest pain centers per 1M pop.	5.4	
% of population with an unmet need for substance abuse treatment	8.5	
Pediatric specialty centers per 1M pop.	4.2	
Physicians accepting Medicare per 100 beneficiaries	2.5	
Medicaid fee levels for office visits as a % of the national average	77.3	
% change in Medicaid fees for office visits (2007 to 2012)	-4.9	
% of adults with no health insurance	26.9	
% of adults underinsured	8.1	
% of children with no health insurance	15.4	
% of children underinsured	18.8	
% of adults with Medicaid	7.2	
Emergency departments per 1M pop.	17.5	
Hospital closures in 2011	2	
Staffed inpatient beds per 100,000 pop.	292.7	
Hospital occupancy rate per 100 staffed beds	61.0	
Psychiatric care beds per 100,000 pop.	27.1	
Median minutes from ED arrival to ED departure for admitted patients	274	
State collects data on diversion	NR	
MEDICAL LIABILITY ENVIRONMENT		A
Lawyers per 10,000 pop.	13.3	
Lawyers per physician	0.6	
Lawyers per emergency physician	13.1	
ATRA judicial hellholes (range 2 to -6)	1	
Malpractice award payments/ 100,000 pop.	1.7	
Average malpractice award payments	\$140,441	
Databank reports per 1,000 physicians	17.3	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	1.8	
Average medical liability insurance premium for primary care physicians	\$16,656	
Average medical liability insurance premium for specialists	\$54,176	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Required	
Medical liability cap on non-economic damages	\$250,000	
Additional liability protection for EMTALA-mandated emergency care	Yes	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		F
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	13.2	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No protocols	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	No	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	71.8	
% of hospitals with electronic medical records	88.6	
% of patients with AMI given PCI within 90 minutes of arrival	94	
Median time to transfer to another facility for acute coronary intervention	63	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	85.5	
% of hospitals having or planning to develop a diversity strategy/plan	60.6	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	10.3	
Bicyclist fatalities per 100,000 cyclists	7.9	
Pedestrian fatalities per 100,000 pedestrians	9.1	
% of traffic fatalities alcohol related	46	
Front occupant restraint use (%)	93.7	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	0	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	76.3	
% of adults aged 65+ who received flu vaccine in past year	59.1	
% of adults aged 65+ who ever received pneumococcal vaccine	70.4	
Fatal occupational injuries per 1M workers	36.4	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	17.0	
Unintentional fall-related fatal injuries per 100,000 pop.	6.1	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.9	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	8.7	
Total injury prevention funds per 1,000 pop.	\$63.63	
Dedicated child injury prevention funding	No	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	1	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	6.1	
Binge alcohol drinkers, % of adults	18.9	
Current smokers, % of adults	19.2	
% of adults with BMI >30	30.4	
% of children obese	19.1	
Cardiovascular disease disparity ratio	4.6	
HIV diagnoses disparity ratio	11.5	
Infant mortality disparity ratio	2.7	
DISASTER PREPAREDNESS		C
Per capita federal disaster preparedness funds	\$5.32	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	3.2	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	549.1	
ICU beds per 1M pop.	340.5	
Burn unit beds per 1M pop.	4.7	
Verified burn centers per 1M pop.	0.2	
Physicians in ESAR-VHP per 1M pop.	2.1	
Nurses in ESAR-VHP per 1M pop.	10.1	
Behavioral health professionals in ESAR-VHP per 1M pop.	0.4	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	Yes	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	51.8	

NR = Not reported
N/A = Not applicable

Utah

Utah continues to support an outstanding *Quality and Patient Safety Environment* and has made notable improvements to its *Medical Liability Environment*. However, *Access to Emergency Care* is threatened by financial barriers, including poor rates of health insurance coverage and low Medicaid reimbursement levels.

Strengths. Utah has among the best *Quality and Patient Safety Environments* in the nation, with numerous policies and practices in place to enhance emergency response systems. The state has a uniform system for providing pre-arrival instructions and state field trauma triage protocols based on Centers for Disease Control and Prevention guidelines. There are destination policies in place for stroke, ST-elevation myocardial infarction (STEMI), and trauma patients that allow emergency medical services teams to bypass local hospitals for medical specialty centers. Utah hospitals are second best in the nation for the time that it takes to transfer a chest pain patient to another facility (45 minutes).

Public Health and Injury Prevention in Utah surpass that of most of the nation, with solid marks for health risk factors. The state has the lowest proportion of adults who smoke (11.8%) and the third lowest percentage of adults engaging in binge drinking (12.0%). Utah has a low infant mortality rate (4.9 per 1,000 live births) and can boast among the lowest racial and ethnic health disparities in infant mortality and cardiovascular disease rates. The state also has relatively high levels of funding for injury prevention (\$682.47 per 1,000 people) and has dedicated funding for injury prevention among children and the elderly.

The lack of access to adequate health insurance, especially for children, is a major concern for this state.

Utah has also improved its *Medical Liability Environment* since the 2009 Report Card, largely due to passage of additional liability protections for care mandated by the Emergency Medical Treatment and Labor Act, as well as an increase in insurers writing medical liability insurance premiums. The state has seen slight decreases in medical liability insurance premiums, although rates for specialists remain well above the national average. Utah also has a medical liability cap on non-economic damages and allows periodic payments of awards.

Challenges. Utah's grade for *Disaster Preparedness* was affected by low rates of physicians and nurses registered in the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP; 15.4 and 143.2 per 1 million people, respectively). Data indicate a low bed surge capacity (412.9 beds per 1 million people) as reported to the U.S. Office of the Assistant Secretary for Preparedness and Response, although state law allows hospitals to surge internally to a higher level. The state also lacks a patient-tracking system during disasters.

Access to Emergency Care remains a major challenge in Utah, especially in relation to the adequacy of health insurance for children. A relatively large proportion of children in Utah are uninsured (10.7%), and more than one in five who do have insurance is underinsured, with parents reporting unreasonable out-of-pocket costs for accessing care (20.2%). Medicaid fee levels for office visits are also well below the national average (85.5%), despite a 12% increase since 2007. While the state has roughly average rates of many types of providers, there is a shortage of orthopedists and hand surgeons (8.5 per 100,000 people) and registered nurses (678.7 per 100,000 people).

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	32	D-	28	D-
Quality & Patient Safety Environment	3	A	2	A
Medical Liability Environment	23	C	14	B-
Public Health & Injury Prevention	2	A	4	A-
Disaster Preparedness	25	C+	44	F
OVERALL	10	C+	9	C+

Recommendations. Utah has the opportunity to implement statewide policies and procedures that would enhance its overall *Disaster Preparedness*. Outreach and education should be undertaken to increase the number of physicians and nurses who register with ESAR-VHP; this would significantly improve the state's ability to respond quickly and effectively during a disaster or mass casualty event. Utah could also improve in this category by exploring mutual aid agreements with behavioral health providers to provide care during a disaster.

The lack of access to adequate health insurance, especially for children, is a major concern for Utah. Utah policymakers and other stakeholders must take action to address this gap and ensure that this vulnerable population is able to receive needed care on time. Increasing childhood immunization rates would help improve the overall health of children by preventing the spread of life-threatening diseases.

Utah should build on previous successes in the *Medical Liability Environment* and implement rules that require all expert witnesses to be of the same specialty as the defendant and licensed to practice in the state.

ACCESS TO EMERGENCY CARE		D-
Board-certified emergency physicians per 100,000 pop.	10.5	
Emergency physicians per 100,000 pop.	13.3	
Neurosurgeons per 100,000 pop.	1.8	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.5	
Plastic surgeons per 100,000 pop.	2.8	
ENT specialists per 100,000 pop.	3.6	
Registered nurses per 100,000 pop.	678.7	
Additional primary care FTEs needed per 100,000 pop.	1.5	
Additional mental health FTEs needed per 100,000 pop.	0.7	
% of children able to see provider	97.2	
Level I or II trauma centers per 1M pop.	1.8	
% of population within 60 minutes of Level I or II trauma center	85.8	
Accredited chest pain centers per 1M pop.	2.5	
% of population with an unmet need for substance abuse treatment	6.7	
Pediatric specialty centers per 1M pop.	4.6	
Physicians accepting Medicare per 100 beneficiaries	4.0	
Medicaid fee levels for office visits as a % of the national average	85.5	
% change in Medicaid fees for office visits (2007 to 2012)	12.0	
% of adults with no health insurance	16.5	
% of adults underinsured	8.2	
% of children with no health insurance	10.7	
% of children underinsured	20.2	
% of adults with Medicaid	5.2	
Emergency departments per 1M pop.	11.6	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	207.8	
Hospital occupancy rate per 100 staffed beds	56.8	
Psychiatric care beds per 100,000 pop.	22.7	
Median minutes from ED arrival to ED departure for admitted patients	215	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		B-
Lawyers per 10,000 pop.	16.4	
Lawyers per physician	0.7	
Lawyers per emergency physician	12.3	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	3.2	
Average malpractice award payments	\$219,793	
Databank reports per 1,000 physicians	37.1	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	10.8	
Average medical liability insurance premium for primary care physicians	\$10,630	
Average medical liability insurance premium for specialists	\$66,554	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	No	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	\$350,001 -500,000	
Additional liability protection for EMTALA-mandated emergency care	Yes	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		A
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	8.4	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2006)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	80.0	
% of hospitals with electronic medical records	94.0	
% of patients with AMI given PCI within 90 minutes of arrival	97	
Median time to transfer to another facility for acute coronary intervention	45	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	45.3	
% of hospitals having or planning to develop a diversity strategy/plan	45.3	
PUBLIC HEALTH & INJURY PREVENTION		A-
Traffic fatalities per 100,000 pop.	7.3	
Bicyclist fatalities per 100,000 cyclists	2.4	
Pedestrian fatalities per 100,000 pedestrians	3.5	
% of traffic fatalities alcohol related	26	
Front occupant restraint use (%)	89.2	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	6	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	71.1	
% of adults aged 65+ who received flu vaccine in past year	56.9	
% of adults aged 65+ who ever received pneumococcal vaccine	70.0	
Fatal occupational injuries per 1M workers	29.4	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	17.9	
Unintentional fall-related fatal injuries per 100,000 pop.	6.5	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.4	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	9.9	
Total injury prevention funds per 1,000 pop.	\$682.47	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	1	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	4.9	
Binge alcohol drinkers, % of adults	12.0	
Current smokers, % of adults	11.8	
% of adults with BMI >30	24.4	
% of children obese	11.6	
Cardiovascular disease disparity ratio	1.6	
HIV diagnoses disparity ratio	11.7	
Infant mortality disparity ratio	1.4	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$6.08	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	NR	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.5	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	NR	
Patients on medication for chronic conditions in medical response plan	NR	
Medical response plan for supplying dialysis	NR	
Mental health patients in medical response plan	NR	
Medical response plan for supplying psychotropic medication	NR	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	No	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	NR	
Bed surge capacity per 1M pop.	412.9	
ICU beds per 1M pop.	266.5	
Burn unit beds per 1M pop.	4.2	
Verified burn centers per 1M pop.	0.4	
Physicians in ESAR-VHP per 1M pop.	15.4	
Nurses in ESAR-VHP per 1M pop.	143.2	
Behavioral health professionals in ESAR-VHP per 1M pop.	36.4	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	48.8	

NR = Not reported
N/A = Not applicable

Vermont

Vermont's overall score has declined, largely due to a lack of statewide planning and policies in *Disaster Preparedness*, as well as declining hospital capacity. The state continues, however, to invest in and improve its *Quality and Patient Safety Environment*.

Strengths. Vermont has improved its *Quality and Patient Safety Environment* by supporting measures to improve care and emergency response capabilities statewide. The state has continued funding for an emergency medical services (EMS) medical director, as well as quality improvement within the EMS system, and has worked to implement stroke and ST-elevation myocardial infarction (STEMI) systems of care. Vermont leads the nation in the time that it takes to transfer patients with chest pain or acute coronary intervention to another facility (28 minutes).

Vermont continues to fare well in *Public Health and Injury Prevention*, with high immunization rates and moderate health risk factors. The state boasts high vaccination rates for older adults, with 65.4% having received an annual influenza vaccination and 74.3% having ever received the pneumococcal vaccine. Vermont also has one of the lowest infant mortality rates (4.2 deaths per 1,000 live births) and below-average proportions of adults and children who are obese (25.4% and 11.3%, respectively).

In *Access to Emergency Care*, Vermont performs exceptionally in reducing financial barriers to care, boasting some of the highest rates of health insurance coverage for adults and children in the nation. The state has relatively high Medicaid fee levels for office visits (117.1% of the national average). Vermont also has adequate access to providers, including primary care providers, many types of specialists, and emergency physicians.

Challenges. Vermont fares poorly overall in *Access to Emergency Care* because of the lack of specialty centers and declining hospital capacity. The state has no accredited chest pain centers and ranks second to last for the

number of pediatric specialty centers (1.6 per 1 million people). Only 78.5% of the population is within 60 minutes of a level I or II trauma center, compared to an average of 82.1% nationally. Vermont has seen an overall decline since the previous Report Card in staffed inpatient beds, emergency departments (ED), and psychiatric care beds and an increase in the hospital occupancy rate. As such, the state has higher-than-average ED wait times: 295 minutes from ED arrival to ED departure for admitted patients.

While Vermont's *Medical Liability Environment* ranking has improved slightly since the 2009 Report Card, this is due only to minor improvements and the addition of apology inadmissibility laws, which is the only measured reform that Vermont is credited with having. The state lacks any expert witness rules requiring experts to practice in the same specialty as the defendant or to be licensed to practice in the state, rules that can prevent unfounded cases from proceeding. The state has also failed to enact special liability protections for care mandated

by the Emergency Medical Treatment and Labor Act (EMTALA). Vermont has seen an increase in its average malpractice award payment yet has no reforms in place that would help to rein in excessive payments.

Vermont's *Disaster Preparedness* grade declined significantly, due in part to the addition of new indicators and because of a lack of statewide policies and a low level of volunteer capacity compared to other states. Vermont's medical response plan lacks provisions for patients dependent on dialysis or medication for chronic diseases. It has no mutual aid agreements in place with behavioral health providers to provide services during a disaster and no behavioral health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals. Vermont also lacks strike teams or medical assistance teams to provide assistance during a disaster or mass casualty event.

Vermont must work to reduce long emergency department wait times, which can lead to poor patient outcomes.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	17	C	25	D
Quality & Patient Safety Environment	33	C-	25	C+
Medical Liability Environment	44	F	39	D-
Public Health & Injury Prevention	7	B+	13	B
Disaster Preparedness	16	B	40	F
OVERALL	21	C	33	D+

Recommendations. Vermont policymakers must seriously consider the impact of such a poor *Medical Liability Environment* on both providers and patients. While the state has an adequate supply of many types of providers, day in and day out, emergency physicians and on-call specialists provide care to high-risk patients and must make quick decisions with little or no knowledge of their medical history. The state must support providers of EMTALA-mandated care by offering additional liability protections that recognize those risks and that at least require clear and convincing evidence of negligence in medical liability cases. Vermont could also consider pretrial screening panels and requiring that expert witnesses be of the same specialty as the defendant.

Vermont should continue to build upon existing improvements to the *Quality and Patient Safety Environment* by developing destination policies for stroke and STEMI patients that would allow EMS providers to bypass local hospitals for medical specialty centers when appropriate. Finally, Vermont must work with stakeholders to increase its hospital capacity and reduce the long ED wait times, which can lead to poor patient outcomes.

ACCESS TO EMERGENCY CARE		D
Board-certified emergency physicians per 100,000 pop.	12.9	
Emergency physicians per 100,000 pop.	13.4	
Neurosurgeons per 100,000 pop.	2.6	
Orthopedists and hand surgeon specialists per 100,000 pop.	13.6	
Plastic surgeons per 100,000 pop.	1.3	
ENT specialists per 100,000 pop.	4.6	
Registered nurses per 100,000 pop.	1016.6	
Additional primary care FTEs needed per 100,000 pop.	0.2	
Additional mental health FTEs needed per 100,000 pop.	NR	
% of children able to see provider	96.9	
Level I or II trauma centers per 1M pop.	1.6	
% of population within 60 minutes of Level I or II trauma center	78.5	
Accredited chest pain centers per 1M pop.	0.0	
% of population with an unmet need for substance abuse treatment	9.2	
Pediatric specialty centers per 1M pop.	1.6	
Physicians accepting Medicare per 100 beneficiaries	3.1	
Medicaid fee levels for office visits as a % of the national average	117.1	
% change in Medicaid fees for office visits (2007 to 2012)	5.2	
% of adults with no health insurance	9.7	
% of adults underinsured	7.3	
% of children with no health insurance	4.0	
% of children underinsured	15.5	
% of adults with Medicaid	18.9	
Emergency departments per 1M pop.	20.8	
Hospital closures in 2011	1	
Staffed inpatient beds per 100,000 pop.	217.6	
Hospital occupancy rate per 100 staffed beds	71.1	
Psychiatric care beds per 100,000 pop.	24.3	
Median minutes from ED arrival to ED departure for admitted patients	295	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		D-
Lawyers per 10,000 pop.	18.4	
Lawyers per physician	0.5	
Lawyers per emergency physician	13.7	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.1	
Average malpractice award payments	\$151,857	
Databank reports per 1,000 physicians	15.3	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	24	
Average medical liability insurance premium for primary care physicians	\$8,371	
Average medical liability insurance premium for specialists	\$40,241	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	No	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C+
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	0	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	NR	
CDC guidelines are basis for state field triage protocols	No protocols	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	No	
Triage and destination policy in place for trauma patients	No	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	100.0	
% of hospitals with electronic medical records	100.0	
% of patients with AMI given PCI within 90 minutes of arrival	97	
Median time to transfer to another facility for acute coronary intervention	28	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	68.8	
% of hospitals having or planning to develop a diversity strategy/plan	31.3	
PUBLIC HEALTH & INJURY PREVENTION		B
Traffic fatalities per 100,000 pop.	10.5	
Bicyclist fatalities per 100,000 cyclists	0.0	
Pedestrian fatalities per 100,000 pedestrians	0.9	
% of traffic fatalities alcohol related	42	
Front occupant restraint use (%)	84.7	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	5	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	1	
% of children immunized, aged 19-35 months	76.7	
% of adults aged 65+ who received flu vaccine in past year	65.4	
% of adults aged 65+ who ever received pneumococcal vaccine	74.3	
Fatal occupational injuries per 1M workers	26.3	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	17.1	
Unintentional fall-related fatal injuries per 100,000 pop.	21.4	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.0	

Unintentional firearm-related fatal injuries per 100,000 pop.	NR	
Unintentional poisoning-related fatal injuries per 100,000 pop.	6.2	
Total injury prevention funds per 1,000 pop.	\$278.01	
Dedicated child injury prevention funding	No	
Dedicated elderly injury prevention funding	No	
Dedicated occupational injury prevention funding	Yes	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	4.2	
Binge alcohol drinkers, % of adults	18.5	
Current smokers, % of adults	19.1	
% of adults with BMI >30	25.4	
% of children obese	11.3	
Cardiovascular disease disparity ratio	2.4	
HIV diagnoses disparity ratio	NR	
Infant mortality disparity ratio	NR	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$17.50	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	0.8	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	None	
Long-term care and nursing home facilities must have written disaster plan	No	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	706.1	
ICU beds per 1M pop.	222.0	
Burn unit beds per 1M pop.	14.4	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	11.2	
Nurses in ESAR-VHP per 1M pop.	63.9	
Behavioral health professionals in ESAR-VHP per 1M pop.	0.0	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	33.4	

NR = Not reported
N/A = Not applicable

Virginia

Virginia has made notable improvements in the *Quality and Patient Safety Environment* and in supporting medical liability reforms. However, there are signs that Virginia's emergency care infrastructure is under strain and in need of investment.

Strengths. Virginia continues to support a strong *Quality and Patient Safety Environment*. The state is making significant progress in promoting and protecting the interests of emergency patients and physicians. The state continues to fund quality improvement efforts within the emergency medical services (EMS) system, as well as an EMS medical director. The state's destination policies allow EMS providers to bypass local hospitals to take stroke, ST-elevation myocardial infarction (STEMI), and trauma patients to appropriate facilities. In 2013, Virginia provided additional funds for the purchase of 12-lead electrocardiograms in ambulances for early detection of cardiac events. This allows EMS providers to better determine where patients need to be transported and has been shown to markedly decrease the time that it takes for patients to receive a potentially life-saving percutaneous coronary intervention.

Virginia has updated its *Medical Liability Environment* to better protect its health care workforce from unfounded lawsuits and excessive malpractice awards. Virginia provides for case certification and voluntary pretrial screening panels and has apology inadmissibility laws in place. In 2011, Virginia passed a comprehensive 20-year agreement on the medical malpractice cap on total damages that will result in the cap gradually increasing from \$2 million to \$3 million by the year 2032. Virginia recently passed tort reforms on where a lawsuit may be filed, recovery of expert witness fees and costs in certain situations, and clarification of the use of medical records to corroborate testimony in wrongful death cases.

While declining somewhat overall in *Public Health and Injury Prevention*, Virginia has implemented legislation to reduce traffic fatalities and improve traffic safety. In 2013, the state passed a new law to address texting while driving, making it a primary offense, with a \$125 fine for the first offense and \$250 for the second offense. The state also supports solid funding levels for injury prevention (\$547.98 per 1,000 people) and dedicates funds specifically for child and elderly injury prevention efforts.

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Challenges. Virginia faces challenges in ensuring continued statewide *Access to Emergency Care*. The Department of Medical Assistance's PEND program treats emergency physicians differently from all other physicians taking care of Medicaid patients, retroactively reducing payments to slightly more than \$22.06 for approximately 45,000 claims a year. Federal law requires emergency physicians to see Medicaid patients, but Virginia's PEND process means the state refuses to compensate physicians appropriately for the services that they provide.

Virginia faces shortages in hospital capacity, with a relatively high hospital occupancy rate (70.5 per 100 staffed beds) and below-average per capita rates of emergency departments (ED), staffed inpatient beds, and psychiatric care beds. Virginia EDs also struggle with relatively high ED wait times (286 minutes from ED arrival to ED departure). However, Virginia's health department and collaborators developed and adopted guidelines to help hospitals better manage emergency patients when inpatient beds are not available, with the ultimate goal of reducing ED wait times.

While Virginia has many important *Disaster Preparedness* practices and policies in place, it still faces some challenges. The state has a very low rate of intensive care unit beds (223.8 per 1 million) despite an above-average bed surge capacity. Virginia also lacks solid liability protections for volunteers and health care workers during a disaster and has roughly average rates of health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals.

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While Virginia has many important *Disaster Preparedness* practices and policies in place, it still faces some challenges. The state has a very low rate of intensive care unit beds (223.8 per 1 million) despite an above-average bed surge capacity. Virginia also lacks solid liability protections for volunteers and health care workers during a disaster and has roughly average rates of health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	38	D-	29	D-
Quality & Patient Safety Environment	22	C+	12	B-
Medical Liability Environment	24	C-	25	C
Public Health & Injury Prevention	14	B	19	C+
Disaster Preparedness	15	B+	23	C
OVERALL	23	C	18	C-

Recommendations. Emergency doctors are required to treat Medicaid patients by federal law, yet Virginia's PEND program retroactively reduces payments without disputing that the services were provided. Elimination of the PEND program will help ensure that Virginia's emergency physicians are fairly compensated and that *Access to Emergency Care* will not be unnecessarily threatened.

There are strong signs that Virginia's emergency care system is under strain. Virginia faces shortages in nurses, hospital capacity, and access to emergency care. Investments that bolster hospital capacity and the availability of frontline care providers like nurses will improve access to care both in a large disaster situation and for everyday trauma patients.

Emergency care is an essential public service that involves unique challenges and circumstances that lawmakers should recognize and address by strengthening medical liability protections for health care workers. Joint and several liability reform can limit the scope of medical liability cases to only those parties responsible, and collateral source rule reform can reduce duplicative damage payments, both of which may help to bring down Virginia's high malpractice award payments.

ACCESS TO EMERGENCY CARE		D-
Board-certified emergency physicians per 100,000 pop.	11.1	
Emergency physicians per 100,000 pop.	14.9	
Neurosurgeons per 100,000 pop.	1.9	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.9	
Plastic surgeons per 100,000 pop.	2.4	
ENT specialists per 100,000 pop.	3.4	
Registered nurses per 100,000 pop.	767.6	
Additional primary care FTEs needed per 100,000 pop.	1.1	
Additional mental health FTEs needed per 100,000 pop.	0.4	
% of children able to see provider	95.7	
Level I or II trauma centers per 1M pop.	1.1	
% of population within 60 minutes of Level I or II trauma center	97.2	
Accredited chest pain centers per 1M pop.	4.4	
% of population with an unmet need for substance abuse treatment	8.4	
Pediatric specialty centers per 1M pop.	2.3	
Physicians accepting Medicare per 100 beneficiaries	2.5	
Medicaid fee levels for office visits as a % of the national average	112.1	
% change in Medicaid fees for office visits (2007 to 2012)	31.8	
% of adults with no health insurance	15.7	
% of adults underinsured	6.9	
% of children with no health insurance	5.9	
% of children underinsured	16.7	
% of adults with Medicaid	6.6	
Emergency departments per 1M pop.	10	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	285.7	
Hospital occupancy rate per 100 staffed beds	70.5	
Psychiatric care beds per 100,000 pop.	22.5	
Median minutes from ED arrival to ED departure for admitted patients	286	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		C
Lawyers per 10,000 pop.	18.5	
Lawyers per physician	0.7	
Lawyers per emergency physician	12.4	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.7	
Average malpractice award payments	\$342,670	
Databank reports per 1,000 physicians	16.4	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	4.2	
Average medical liability insurance premium for primary care physicians	\$11,719	
Average medical liability insurance premium for specialists	\$53,804	
Presence of pretrial screening panels	Voluntary	
Pretrial screening panel's findings admissible as evidence	Yes	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	No	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		B-
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	15.9	
Adverse event reporting required	No	
% of counties with E-911 capability	99.3	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	86.7	
% of hospitals with electronic medical records	95.6	
% of patients with AMI given PCI within 90 minutes of arrival	95	
Median time to transfer to another facility for acute coronary intervention	58	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	57.9	
% of hospitals having or planning to develop a diversity strategy/plan	50.4	
PUBLIC HEALTH & INJURY PREVENTION		C+
Traffic fatalities per 100,000 pop.	8.1	
Bicyclist fatalities per 100,000 cyclists	3.8	
Pedestrian fatalities per 100,000 pedestrians	4.4	
% of traffic fatalities alcohol related	36	
Front occupant restraint use (%)	81.8	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	4	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	77.0	
% of adults aged 65+ who received flu vaccine in past year	63.3	
% of adults aged 65+ who ever received pneumococcal vaccine	72.0	
Fatal occupational injuries per 1M workers	28.5	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	16.9	
Unintentional fall-related fatal injuries per 100,000 pop.	6.8	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.0	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.2	
Unintentional poisoning-related fatal injuries per 100,000 pop.	6.0	
Total injury prevention funds per 1,000 pop.	\$547.98	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	2	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	6.8	
Binge alcohol drinkers, % of adults	17.9	
Current smokers, % of adults	20.9	
% of adults with BMI >30	29.2	
% of children obese	14.3	
Cardiovascular disease disparity ratio	1.3	
HIV diagnoses disparity ratio	10.5	
Infant mortality disparity ratio	2.9	
DISASTER PREPAREDNESS		C
Per capita federal disaster preparedness funds	\$4.66	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	1.7	
Accredited by the Emergency Management Accreditation Program	Yes	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	Yes	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	Statewide	
Bed surge capacity per 1M pop.	1261.6	
ICU beds per 1M pop.	223.8	
Burn unit beds per 1M pop.	5.5	
Verified burn centers per 1M pop.	0.1	
Physicians in ESAR-VHP per 1M pop.	23.9	
Nurses in ESAR-VHP per 1M pop.	280.1	
Behavioral health professionals in ESAR-VHP per 1M pop.	20.0	
Strike teams or medical assistance teams	Yes	
Disaster training required for essential hospital, EMS personnel	NR	
Liability protections for health care workers during a disaster (range 0-4)	1	
% of RNs received disaster training	34.3	

NR = Not reported
N/A = Not applicable

Washington

Washington has made a strong commitment to the *Quality and Patient Safety Environment* and *Public Health and Injury Prevention*. However, the state lacks coordination for *Disaster Preparedness* and faces a challenging *Medical Liability Environment*.

Strengths. Washington earns an A- in *Public Health and Injury Prevention*, the fifth highest score in the nation. The state boasts low rates of fatal injuries and generally low levels of chronic disease risk factors. Traffic fatality rates in Washington are particularly low, thanks in part to its strong child safety seat and adult seatbelt legislation and strict laws against distracted driving. The state is first in the nation for seatbelt use, with 97.5% of vehicle front-seat occupants using seatbelts. The infant mortality rate (4.5 deaths per 1,000 live births) is the 6th lowest in the nation. Only 17.5% of the state's adults are current smokers and strong anti-smoking legislation keeps secondhand smoke out of bars, restaurants, and workplaces.

Washington continues to be a leader in the *Quality and Patient Safety Environment*, with patient care procedures, protocols, and triage guidelines in place for ST-elevation myocardial infarction (STEMI), trauma, and stroke patients. The state has a uniform system for providing pre-arrival instructions. Washington has a strong prescription drug monitoring program, which has been implemented statewide and monitors drug schedules II to V. While the state continues to fund quality improvement efforts within the emergency medical services (EMS) system, it does not have a funded state EMS medical director.

Washington has worked to improve some aspects of *Access to Emergency Care*. It has improved its Medicaid fee levels, with a 61.2% increase between 2007 and 2012 that has lifted the state's fees to 125.1% of the national average. A recent collaboration between state officials and the medical community resulted in implementation of best practices that protect Medicaid patients' access to emergency care while better ensur-

ing that Medicaid patients seek and receive treatment in appropriate care settings.

Challenges. Washington's *Disaster Preparedness* rank fell, largely because the state did not implement improvements made in other states. Per capita federal disaster preparedness funds have dropped from \$7.09 in the 2009 Report Card to \$5.31, and the state does not have a budget line item for disaster preparedness funding specific for health care surge. Washington lacks many policies and procedures that ensure that medically vulnerable patients receive care in a disaster and that help coordinate responses between different responders. However, the state is conducting a pilot project for statewide electronic patient tracking software, which is a step in the right direction.

Washington has a challenging *Medical Liability Environment*, with few protections in place for the state's medical practitioners. Although the state maintains below-average medical liability insurance premiums for both primary care physicians (\$11,128) and specialists (\$52,935), practitioners are vulnerable to unfounded lawsuits. Washington does not provide for case certification or for pretrial screening panels, both of which can weed out frivolous or unsubstantiated lawsuits. It remains in the minority of states without any cap on non-economic damages in medical liability cases, which can lead to exorbitant malpractice award payments.

Despite some improvements noted above, Washington continues to receive a failing grade for *Access to Emergency Care*. One major area of concern is the lack of resources and inpatient capacity for mental health patients. The state ranks third worst in the nation for the number of psychiatric care beds (8.3 per 100,000 people).

Recommendations. Washington is a home rule state with authority for local response held by local health officers. While this is a logical setup for disaster response in a large and rural state, Washington could benefit from more attention to statewide

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	43	F	37	F
Quality & Patient Safety Environment	1	A	8	B
Medical Liability Environment	40	D-	42	F
Public Health & Injury Prevention	4	A	5	A-
Disaster Preparedness	33	C	50	F
OVERALL	19	C	35	D+

planning and processes. A statewide medical communication system with redundancy would help ensure that different authorities can coordinate their response to an unfolding disaster. Washington also has some of the lowest rates of physicians, nurses, and behavioral health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals and should focus on recruiting these professionals in advance of a disaster event.

Washington should work to reform its *Medical Liability Environment* by passing a medical liability cap on non-economic damages to ensure that award payments do not rise uncontrollably. Another vital reform is special liability protection for care mandated by the Emergency Medical Treatment and Labor Act, which would protect emergency care workers who provide care in life-threatening situations, often to high-risk patients, without knowledge of their medical histories.

Washington needs greater investments in its hospital infrastructure. In addition to the paucity of psychiatric care beds, the state has some of the lowest levels of staffed inpatient and intensive care unit beds. There is also very low access to level I or II trauma centers, with only 83.2% of the population within 60 minutes of one.

The lack of resources and inpatient capacity for mental health patients is a major concern.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	11.7	
Emergency physicians per 100,000 pop.	13.8	
Neurosurgeons per 100,000 pop.	1.7	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.1	
Plastic surgeons per 100,000 pop.	2.1	
ENT specialists per 100,000 pop.	3.7	
Registered nurses per 100,000 pop.	798.6	
Additional primary care FTEs needed per 100,000 pop.	3.1	
Additional mental health FTEs needed per 100,000 pop.	0.9	
% of children able to see provider	94.2	
Level I or II trauma centers per 1M pop.	0.7	
% of population within 60 minutes of Level I or II trauma center	83.2	
Accredited chest pain centers per 1M pop.	1.3	
% of population with an unmet need for substance abuse treatment	8.6	
Pediatric specialty centers per 1M pop.	2.8	
Physicians accepting Medicare per 100 beneficiaries	3.5	
Medicaid fee levels for office visits as a % of the national average	125.1	
% change in Medicaid fees for office visits (2007 to 2012)	61.2	
% of adults with no health insurance	16.2	
% of adults underinsured	8.1	
% of children with no health insurance	8.8	
% of children underinsured	14.8	
% of adults with Medicaid	9.0	
Emergency departments per 1M pop.	11.2	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	208.3	
Hospital occupancy rate per 100 staffed beds	65.2	
Psychiatric care beds per 100,000 pop.	8.3	
Median minutes from ED arrival to ED departure for admitted patients	260	
State collects data on diversion	N/A	
MEDICAL LIABILITY ENVIRONMENT		F
Lawyers per 10,000 pop.	15.2	
Lawyers per physician	0.6	
Lawyers per emergency physician	11.0	
ATRA judicial hellholes (range 2 to -6)	-1	
Malpractice award payments/ 100,000 pop.	2.0	
Average malpractice award payments	\$248,890	
Databank reports per 1,000 physicians	27.9	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	4.7	
Average medical liability insurance premium for primary care physicians	\$11,128	
Average medical liability insurance premium for specialists	\$52,935	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Upon request	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Partially	

Collateral source rule, provides for awards to be offset	Yes, No offset	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		B
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	7.8	
Adverse event reporting required	Yes	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	Yes	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	Yes	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	3	
% of hospitals with computerized practitioner order entry	81.1	
% of hospitals with electronic medical records	93.7	
% of patients with AMI given PCI within 90 minutes of arrival	91	
Median time to transfer to another facility for acute coronary intervention	50	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	44.9	
% of hospitals having or planning to develop a diversity strategy/plan	34.6	
PUBLIC HEALTH & INJURY PREVENTION		A-
Traffic fatalities per 100,000 pop.	5.8	
Bicyclist fatalities per 100,000 cyclists	1.9	
Pedestrian fatalities per 100,000 pedestrians	2.6	
% of traffic fatalities alcohol related	40	
Front occupant restraint use (%)	97.5	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	76.0	
% of adults aged 65+ who received flu vaccine in past year	60.7	
% of adults aged 65+ who ever received pneumococcal vaccine	74.0	
Fatal occupational injuries per 1M workers	22.7	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	16.9	
Unintentional fall-related fatal injuries per 100,000 pop.	11.6	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.7	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	11.2	
Total injury prevention funds per 1,000 pop.	\$214.28	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0.5	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	4.5	
Binge alcohol drinkers, % of adults	17.8	
Current smokers, % of adults	17.5	
% of adults with BMI >30	26.5	
% of children obese	11.0	
Cardiovascular disease disparity ratio	2.8	
HIV diagnoses disparity ratio	7.5	
Infant mortality disparity ratio	2.2	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$5.31	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	No	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes, No	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	3.0	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	No	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	None	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	No	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	In metro areas	
Bed surge capacity per 1M pop.	747.4	
ICU beds per 1M pop.	200.5	
Burn unit beds per 1M pop.	7.2	
Verified burn centers per 1M pop.	0.1	
Physicians in ESAR-VHP per 1M pop.	3.0	
Nurses in ESAR-VHP per 1M pop.	45.7	
Behavioral health professionals in ESAR-VHP per 1M pop.	2.9	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	1	
% of RNs received disaster training	40.5	

NR = Not reported
N/A = Not applicable

West Virginia

West Virginia has strong liability protections in place for health care providers, admirable access to medical facilities, and adequate hospital capacity overall. However, the state faces challenges with high rates of chronic disease risk factors and fatal injuries, as well as weak *Disaster Preparedness* plans.

Strengths. West Virginia has a strong *Medical Liability Environment*, with the nation's eighth lowest average malpractice award payment (\$170,416). West Virginia is one of only 8 states that has enacted special liability protections for Emergency Medical Treatment and Labor Act-mandated care. The medical liability cap on non-economic damages, abolishment of joint and several liability, and collateral source rule reform work to hold down excessive judgments. Case certification by expert witnesses helps ensure that only cases with merit are advanced. These and other reforms help West Virginia maintain a fair legal atmosphere that promotes good practice and protects patient access to care.

Despite its rural and mountainous geography, West Virginia fares well in certain aspects of *Access to Emergency Care*. It has the fifth highest per capita rates of staffed inpatient beds (455.3 per 100,000 people) and psychiatric care beds (47.5 per 100,000 people). West Virginians also have above-average access to emergency departments and level I or II trauma centers. The state ranks fifth in the nation for the low proportion of people needing but not receiving substance abuse treatment (7.0%).

West Virginia has bright spots in its *Quality and Patient Safety Environment*, despite a subpar showing in the category. The state has dedicated funding for both quality improvement and a state emergency medical services director. West Virginia developed systems of care for stroke and ST-elevation myocardial infarction (STEMI) patients and has triage and destination policies for

trauma patients. These policies help ensure that patients in West Virginia receive prompt and appropriate medical attention.

Challenges. West Virginia ranks poorly in *Public Health and Injury Prevention*, largely due to risk factors for chronic disease. It has the second highest rate of adults who smoke (28.6%), the third highest rate of adult obesity (32.4%), and a childhood obesity rate higher than the national average (18.5%). West Virginia's children face other risks as well: The state has one of the lowest rates of childhood immunizations in the nation (69.3%). In terms of injury, West Virginia has some of the highest rates of motor vehicle-related deaths, fatal occupational injuries, and accidental firearm-related deaths and the highest rate of accidental poisoning deaths, which include overdoses (25.4 deaths per 100,000 people).

West Virginia lacks many important statewide *Disaster Preparedness* policies and plans, leaving the state potentially vulnerable to emergency situations. The state's medical response plan does not address patients dependent on medications, and it has one of the lowest rates of behavioral health professionals registered in the Emergency System for Advance Registration of Volunteer Health Professionals. West Virginia also lacks systems that help state officials track and respond to emerging disasters, such as a patient-tracking system, a syndromic surveillance system, or a surveillance system for common emergency department presentations.

Recommendations. West Virginia must undertake a concentrated public health response to combat numerous health risk behaviors. It has the second highest rate of tobacco use but weak anti-smoking legislation. Prohibiting smoking in bars, restaurants, and workplaces would not only discourage smoking but protect workers and other patrons from secondhand smoke exposure. The state's dangerously high obesity rates for adults and worrisome

West Virginia must undertake a concentrated public health response to combat numerous health risks.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	5	B	11	C
Quality & Patient Safety Environment	30	C-	30	C-
Medical Liability Environment	20	C	16	C+
Public Health & Injury Prevention	43	D-	42	F
Disaster Preparedness	38	D+	35	D
OVERALL	25	C	24	C-

health markers for children also require a public health strategy. West Virginia is making strides to address these issues: In recognition of the public health disparities facing West Virginians and in concert with its land grant mission, West Virginia University has established the state's only School of Public Health. This new school now has nearly 50 faculty members dedicated to improving public health indicators over time; the dean of the new school is an emergency medicine physician.

West Virginia is also acting to address the state's high injury rates. The West Virginia Department of Health and Human Resources has established a new Violence and Injury Prevention Program (VIIP) within the Bureau for Maternal and Child Health. The VIIP has a full-time coordinator and has initiated a series of statewide planning efforts designed to address the notable injury disparities in the state with the engagement of the emergency medicine community. In addition, West Virginia University has received an additional 5 years of funding from the Centers for Disease Control and Prevention (CDC) for its CDC-designated Injury Control Research Center and is supporting the efforts of the VIIP.

ACCESS TO EMERGENCY CARE		C
Board-certified emergency physicians per 100,000 pop.	8.6	
Emergency physicians per 100,000 pop.	12.4	
Neurosurgeons per 100,000 pop.	2.4	
Orthopedists and hand surgeon specialists per 100,000 pop.	8.4	
Plastic surgeons per 100,000 pop.	1.6	
ENT specialists per 100,000 pop.	3.7	
Registered nurses per 100,000 pop.	985.5	
Additional primary care FTEs needed per 100,000 pop.	1.3	
Additional mental health FTEs needed per 100,000 pop.	0.7	
% of children able to see provider	95.8	
Level I or II trauma centers per 1M pop.	3.2	
% of population within 60 minutes of Level I or II trauma center	91.4	
Accredited chest pain centers per 1M pop.	1.6	
% of population with an unmet need for substance abuse treatment	7.0	
Pediatric specialty centers per 1M pop.	2.2	
Physicians accepting Medicare per 100 beneficiaries	2.3	
Medicaid fee levels for office visits as a % of the national average	99.6	
% change in Medicaid fees for office visits (2007 to 2012)	12.9	
% of adults with no health insurance	16.3	
% of adults underinsured	9.1	
% of children with no health insurance	9.7	
% of children underinsured	17.6	
% of adults with Medicaid	11.2	
Emergency departments per 1M pop.	26.4	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	455.3	
Hospital occupancy rate per 100 staffed beds	62.7	
Psychiatric care beds per 100,000 pop.	47.5	
Median minutes from ED arrival to ED departure for admitted patients	268	
State collects data on diversion	Yes	
MEDICAL LIABILITY ENVIRONMENT		C+
Lawyers per 10,000 pop.	12.1	
Lawyers per physician	0.4	
Lawyers per emergency physician	9.7	
ATRA judicial hellholes (range 2 to -6)	-3	
Malpractice award payments/ 100,000 pop.	6.1	
Average malpractice award payments	\$170,416	
Databank reports per 1,000 physicians	57.8	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	Yes	
Number of insurers writing medical liability policies per 1,000 physicians	15.5	
Average medical liability insurance premium for primary care physicians	\$19,369	
Average medical liability insurance premium for specialists	\$72,606	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	No	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	Yes	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	Yes	
State provides for case certification	Yes	
Expert witness must be of the same specialty as the defendant	Yes	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C-
Funding for quality improvement within the EMS system	Yes	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	30.7	
Adverse event reporting required	No	
% of counties with E-911 capability	100.0	
Uniform system for providing pre-arrival instructions	Yes	
CDC guidelines are basis for state field triage protocols	No	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	63.0	
% of hospitals with electronic medical records	87.0	
% of patients with AMI given PCI within 90 minutes of arrival	91	
Median time to transfer to another facility for acute coronary intervention	104	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	72.3	
% of hospitals having or planning to develop a diversity strategy/plan	43.1	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	16.1	
Bicyclist fatalities per 100,000 cyclists	3.3	
Pedestrian fatalities per 100,000 pedestrians	3.9	
% of traffic fatalities alcohol related	32	
Front occupant restraint use (%)	84.9	
Helmet use required for all motorcycle riders	Yes	
Child safety seat/seat belt legislation (range 0-10)	7	
Distracted driving legislation (range 0-4)	4	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	69.3	
% of adults aged 65+ who received flu vaccine in past year	68.5	
% of adults aged 65+ who ever received pneumococcal vaccine	64.4	
Fatal occupational injuries per 1M workers	86.5	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	18.8	
Unintentional fall-related fatal injuries per 100,000 pop.	10.7	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.4	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.7	
Unintentional poisoning-related fatal injuries per 100,000 pop.	25.4	
Total injury prevention funds per 1,000 pop.	\$758.28	
Dedicated child injury prevention funding	No	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	7.3	
Binge alcohol drinkers, % of adults	10.1	
Current smokers, % of adults	28.6	
% of adults with BMI >30	32.4	
% of children obese	18.5	
Cardiovascular disease disparity ratio	2.0	
HIV diagnoses disparity ratio	8.6	
Infant mortality disparity ratio	1.6	
DISASTER PREPAREDNESS		D
Per capita federal disaster preparedness funds	\$7.75	
State budget line item for health care surge	No	
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	2.0	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	Yes	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	Yes	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	No	
Real-time surveillance system in place for common ED presentations	No	
Bed surge capacity per 1M pop.	887.1	
ICU beds per 1M pop.	364.3	
Burn unit beds per 1M pop.	2.2	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	34.0	
Nurses in ESAR-VHP per 1M pop.	434.9	
Behavioral health professionals in ESAR-VHP per 1M pop.	2.7	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No	
Liability protections for health care workers during a disaster (range 0-4)	3	
% of RNs received disaster training	39.7	

NR = Not reported
N/A = Not applicable

Wisconsin

Wisconsin's emergency medical system is robust, with above-average rankings for the *Medical Liability Environment* and *Access to Emergency Care*, along with low rates of injury. However, the state's *Disaster Preparedness* planning and policies related to the *Quality and Patient Safety Environment* are subpar.

Strengths. Wisconsin's *Medical Liability Environment* has a number of reforms in place that help ensure adequate access to care. Wisconsin boasts the lowest per capita rate of malpractice award payments in the nation (0.7 per 100,000 people), and the amounts of the awards themselves are generally well below average. In addition, the average medical liability insurance premiums for both primary care physicians and specialists are the fourth lowest in the country (\$5,880 and \$22,017, respectively). Wisconsin has placed caps on medical liability payments for non-economic damages and implemented a patient compensation fund. Periodic payments, which can lessen the burden of excessive award payments, are also required by the state.

Wisconsin has improved in *Public Health and Injury Prevention*, rising from below average on the 2009 Report Card to 20th in the nation. The state now has the fifth highest rate of childhood immunizations (81.5%), and the sixth highest rate of pneumonia vaccination among older adults (74%). Wisconsin does have some areas of concern, such as the second highest rate of accidental fall-related deaths in the nation (17.1 per 100,000 people), though dedicated funding is available to address injury prevention for older adults and children. The state also has a high rate of binge drinking among adults (24.3%).

Challenges. Wisconsin has slipped in the *Disaster Preparedness* rankings, largely by not keeping pace with other states. The state lacks some essential provisions that help ensure a quick disaster response and manage patient flow, including a statewide medical communication system with re-

dundancy and a statewide patient tracking system. Wisconsin's planning processes do not include input from emergency physicians, and its Emergency Support Function 8 plan is not shared with essential hospital and emergency medical services personnel.

Wisconsin has some challenges in *Access to Emergency Care*, notably in access to behavioral health resources. The state has the second highest need for mental health care providers in the nation, with 3.4 additional full-time providers needed per 100,000 people to eliminate the shortage. More than 10% of the state's population has an unmet need for substance abuse treatment, the sixth highest in the country. These numbers, coupled with Wisconsin's high binge drinking numbers and above-average rates of alcohol-related traffic injuries, indicate that this is a critical gap in the state's overall health care system.

There is some evidence that Wisconsin's denizens are not enjoying equal access to preventive care. Wisconsin has one of the highest cardiovascular disease disparity ratios in the country: The state's American Indian/Alaska Native population is almost three times more likely to suffer from this chronic condition as the race or ethnicity least likely to do so. Wisconsin's HIV disparity is also stark, with Black individuals being about 13 times more likely to receive an HIV diagnosis than White individuals. The state needs to ensure that disadvantaged populations are receiving preventive care and education and have access to adequate treatment services.

Recommendations. Overall, Wisconsin has a relatively strong emergency care system, but there are improvements that could be made. While the state has an average-sized health care workforce, its hospital capacity is lacking. Wisconsin has a below-average rate of staffed inpatient beds (264.6 per 100,000 people), and its low rate of intensive care unit beds (196.5 per 1 million people) is a contributor to its poor *Disaster Preparedness* score. An in-

Wisconsin has one of the lowest Medicaid reimbursement rates in the nation.

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	26	C-	19	C-
Quality & Patient Safety Environment	34	D+	31	C-
Medical Liability Environment	15	C+	18	C+
Public Health & Injury Prevention	31	D+	20	C+
Disaster Preparedness	17	B	39	F
OVERALL	27	C	21	C-

crease in hospital capacity could improve access to care in both every day and disaster situations.

Wisconsin has one of the country's lowest Medicaid reimbursement rates, at only 65.9% of the national average. Increasing this rate will help ensure that the state can recruit and retain physicians willing to treat this vulnerable population.

The state could enhance its liability environment and encourage specialists to provide critical on-call services to emergency patients by enacting special liability protections for Emergency Medical Treatment and Labor Act (EMTALA)-mandated emergency care.

Wisconsin could improve the policies and procedures in its *Quality and Patient Safety Environment*, particularly those that help first responders and emergency physicians treat vulnerable patients. The state currently does not have a uniform system for providing pre-arrival instructions, nor does it have triage and destination policies in place for stroke or ST-elevation myocardial infarction (STEMI) patients. Putting such policies in place would help ensure that these patients receive the time-sensitive and evidence-based care needed for a better prognosis.

ACCESS TO EMERGENCY CARE		C-
Board-certified emergency physicians per 100,000 pop.	9.0	
Emergency physicians per 100,000 pop.	11.8	
Neurosurgeons per 100,000 pop.	2.0	
Orthopedists and hand surgeon specialists per 100,000 pop.	9.7	
Plastic surgeons per 100,000 pop.	1.9	
ENT specialists per 100,000 pop.	3.7	
Registered nurses per 100,000 pop.	988.3	
Additional primary care FTEs needed per 100,000 pop.	1.4	
Additional mental health FTEs needed per 100,000 pop.	3.4	
% of children able to see provider	95.2	
Level I or II trauma centers per 1M pop.	1.7	
% of population within 60 minutes of Level I or II trauma center	93.2	
Accredited chest pain centers per 1M pop.	3.3	
% of population with an unmet need for substance abuse treatment	10.2	
Pediatric specialty centers per 1M pop.	7.7	
Physicians accepting Medicare per 100 beneficiaries	3.9	
Medicaid fee levels for office visits as a % of the national average	65.9	
% change in Medicaid fees for office visits (2007 to 2012)	1.0	
% of adults with no health insurance	11.8	
% of adults underinsured	7.1	
% of children with no health insurance	5.8	
% of children underinsured	19.8	
% of adults with Medicaid	10.6	
Emergency departments per 1M pop.	23.2	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	264.6	
Hospital occupancy rate per 100 staffed beds	62.5	
Psychiatric care beds per 100,000 pop.	24.4	
Median minutes from ED arrival to ED departure for admitted patients	204	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		C+
Lawyers per 10,000 pop.	13.0	
Lawyers per physician	0.5	
Lawyers per emergency physician	11.1	
ATRA judicial hellholes (range 2 to -6)	1	
Malpractice award payments/ 100,000 pop.	0.7	
Average malpractice award payments	\$243,703	
Databank reports per 1,000 physicians	7.8	
Provider apology is inadmissible as evidence	No	
Patient compensation fund	Yes	
Number of insurers writing medical liability policies per 1,000 physicians	4.7	
Average medical liability insurance premium for primary care physicians	\$5,880	
Average medical liability insurance premium for specialists	\$22,017	
Presence of pretrial screening panels	No	
Pretrial screening panel's findings admissible as evidence	N/A	
Periodic payments	Required	
Medical liability cap on non-economic damages	>\$500,000	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Partially	

Collateral source rule, provides for awards to be offset	Yes, No offset	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		C-
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	Yes	
Emergency medicine residents per 1M pop.	8.6	
Adverse event reporting required	No	
% of counties with E-911 capability	98.6	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	Yes (2011)	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	Yes	
Prescription drug monitoring program (range 0-4)	1	
% of hospitals with computerized practitioner order entry	83.2	
% of hospitals with electronic medical records	98.5	
% of patients with AMI given PCI within 90 minutes of arrival	93	
Median time to transfer to another facility for acute coronary intervention	54	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	70.0	
% of hospitals having or planning to develop a diversity strategy/plan	60.0	
PUBLIC HEALTH & INJURY PREVENTION		C+
Traffic fatalities per 100,000 pop.	8.9	
Bicyclist fatalities per 100,000 cyclists	2.1	
Pedestrian fatalities per 100,000 pedestrians	2.5	
% of traffic fatalities alcohol related	39	
Front occupant restraint use (%)	79.0	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	8	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	81.5	
% of adults aged 65+ who received flu vaccine in past year	56.5	
% of adults aged 65+ who ever received pneumococcal vaccine	74.0	
Fatal occupational injuries per 1M workers	28.7	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	16.1	
Unintentional fall-related fatal injuries per 100,000 pop.	17.1	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	0.8	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.1	
Unintentional poisoning-related fatal injuries per 100,000 pop.	9.0	
Total injury prevention funds per 1,000 pop.	\$218.55	
Dedicated child injury prevention funding	Yes	
Dedicated elderly injury prevention funding	Yes	
Dedicated occupational injury prevention funding	No	
Gun-purchasing legislation (range 0-6)	0.5	
Anti-smoking legislation (range 0-3)	3	
Infant mortality rate per 1,000 live births	5.8	
Binge alcohol drinkers, % of adults	24.3	
Current smokers, % of adults	20.9	
% of adults with BMI >30	27.7	
% of children obese	13.4	
Cardiovascular disease disparity ratio	2.8	
HIV diagnoses disparity ratio	13.6	
Infant mortality disparity ratio	2.6	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$4.72	
State budget line item for health care surge	Yes	
ESF-8 plan shared with all EMS and essential hospital personnel	No	
Emergency physician input into the state planning process	No	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	1.9	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	Yes	
Medical response plan for supplying dialysis	Yes	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	Yes	
Mutual aid agreements with behavioral health providers	Local-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	County- or city-wide	
Statewide medical communication system with one layer of redundancy	No	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	In metro areas	
Bed surge capacity per 1M pop.	1101.6	
ICU beds per 1M pop.	196.5	
Burn unit beds per 1M pop.	4.7	
Verified burn centers per 1M pop.	0.2	
Physicians in ESAR-VHP per 1M pop.	31.8	
Nurses in ESAR-VHP per 1M pop.	182.0	
Behavioral health professionals in ESAR-VHP per 1M pop.	37.0	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No, Yes	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	36.6	

NR = Not reported
N/A = Not applicable

Wyoming

Wyoming has robust hospital capacity and some liability protections for health care providers. However, financial barriers to care, health care work force shortages, and a lack of statewide policies and practices for its *Quality and Patient Safety Environment* and *Disaster Preparedness* lands the state at the bottom of this year's rankings.

Strengths. Wyoming has some strong elements facilitating *Access to Emergency Care* with robust access to important medical facilities. The state is fourth in the nation for access to emergency departments (ED) and fifth for its high per capita rate of level I or II trauma centers; however, because of its geography, only 33% of the population is within 60 minutes of a trauma center. Wyoming has the second lowest hospital occupancy rate in the nation and ranks among the top 10 for per capita rates of psychiatric care beds and staffed inpatient beds. The state's median time from ED arrival to departure for admitted patients is only 216 minutes, well below the national average.

Wyoming has instituted some protections for practitioners in its *Medical Liability Environment*. Mandatory pretrial screening panels help discourage lawsuits that lack merit, and physician apologies are not admissible as evidence in court. Wyoming has abolished joint and several liability, reducing unfair liability payments. While its average malpractice award payments are among the highest in the nation (\$545,729), the state does have one of the lowest rates of malpractice payments.

Finally, Wyoming has very low obesity rates, with a low proportion of children who are obese (10.7%) and a below-average proportion of adults who are obese (25.0%).

Challenges. Wyoming has the lowest ranked *Quality and Patient Safety Environment* in the country, largely due to a lack of state-level investment in this area. Wyoming provides no funding for quality improvement within the emergency medical services (EMS) system or a state EMS med-

ical director. Wyoming also lacks a uniform system for providing pre-arrival instructions and triage and destination policies for stroke, ST-elevation myocardial infarction (STEMI), and trauma patients.

Although Wyoming fares well in overall hospital capacity, lack of health insurance and a health care workforce shortage are troubling barriers to care. The state has high proportions of adults and children with no health insurance (20.3% and 10.0%, respectively) and the second highest proportion of children who are underinsured (22.5%). The state also has low per capita rates of emergency physicians; neurosurgeons; plastic surgeons; and ear, nose, and throat specialists which can affect the availability of on-call specialty care in the ED.

These numbers are troubling in light of Wyoming's challenges in *Public Health and Injury Prevention*. Wyoming has the highest rate of traffic fatalities in the country (26.9 per 100,000 people) and the second highest rate of fatal occupational injuries (99.0 per 1 million workers). The state also has high rates of homicide and suicide; firearm-related deaths; and poisoning-related deaths, which include drug overdoses. Wyoming also has extremely low rates of vaccination among children and older adults.

Wyoming has the second highest per capita federal investment in *Disaster Preparedness* at \$18.84 but lags behind most other states, largely due

to a lack of important statewide policies and plans. The state has no redundant medical communication system in place, which would be an asset in a large and rural state, and no statewide patient-tracking system. Wyoming's medical response plan does not include patients dependent on medications or dialysis to ensure these patients receive needed care.

Recommendations. Wyoming needs to invest in quality improvement in the emergency care system and in patient safety. In addition to developing state-level protocols for stroke, STEMI, and trauma patients,

	2009		2014	
	Rank	Grade	Rank	Grade
Access to Emergency Care	13	C+	33	F
Quality & Patient Safety Environment	43	D-	51	F
Medical Liability Environment	42	D-	38	D-
Public Health & Injury Prevention	45	F	47	F
Disaster Preparedness	30	C	47	F
OVERALL	42	D+	51	F

Wyoming should encourage more of its hospitals to adopt technological advances, such as computerized practitioner order entry and electronic medical records, which help reduce errors and improve the ability of doctors and hospitals to provide timely and appropriate care.

While many of Wyoming's challenges in *Access to Emergency Care* are due to being a large, rural state, Wyoming can and must take action to improve immunization rates and reduce traffic fatalities. The state should invest in outreach and education aimed at increasing seatbelt use and pass legislation to require helmets for all motorcycle riders. The state could also explore innovative approaches to increasing immunization rates among children and the elderly.

Wyoming can strengthen its *Medical Liability Environment* to help lower the average malpractice award payment and to aid in recruiting a skilled workforce. The state should explore a medical liability cap on non-economic damages and require periodic payments of malpractice awards. Wyoming should consider providing special liability protections for care mandated by the Emergency Medical Treatment and Labor Act to further alleviate the burden on physicians who are willing to provide emergent, life-saving care to patients.

Wyoming needs to invest in patient safety and quality improvement in the emergency care system.

ACCESS TO EMERGENCY CARE		F
Board-certified emergency physicians per 100,000 pop.	9.5	
Emergency physicians per 100,000 pop.	11.5	
Neurosurgeons per 100,000 pop.	1.7	
Orthopedists and hand surgeon specialists per 100,000 pop.	11.1	
Plastic surgeons per 100,000 pop.	0.5	
ENT specialists per 100,000 pop.	2.9	
Registered nurses per 100,000 pop.	846.0	
Additional primary care FTEs needed per 100,000 pop.	3.0	
Additional mental health FTEs needed per 100,000 pop.	1.1	
% of children able to see provider	95.8	
Level I or II trauma centers per 1M pop.	3.5	
% of population within 60 minutes of Level I or II trauma center	33.0	
Accredited chest pain centers per 1M pop.	0.0	
% of population with an unmet need for substance abuse treatment	9.7	
Pediatric specialty centers per 1M pop.	3.5	
Physicians accepting Medicare per 100 beneficiaries	2.9	
Medicaid fee levels for office visits as a % of the national average	136.6	
% change in Medicaid fees for office visits (2007 to 2012)	3.2	
% of adults with no health insurance	20.3	
% of adults underinsured	7.3	
% of children with no health insurance	10.0	
% of children underinsured	22.5	
% of adults with Medicaid	6.9	
Emergency departments per 1M pop.	41.6	
Hospital closures in 2011	0	
Staffed inpatient beds per 100,000 pop.	452.3	
Hospital occupancy rate per 100 staffed beds	55.6	
Psychiatric care beds per 100,000 pop.	48.2	
Median minutes from ED arrival to ED departure for admitted patients	216	
State collects data on diversion	No	
MEDICAL LIABILITY ENVIRONMENT		D-
Lawyers per 10,000 pop.	13.0	
Lawyers per physician	0.7	
Lawyers per emergency physician	11.4	
ATRA judicial hellholes (range 2 to -6)	0	
Malpractice award payments/ 100,000 pop.	1.0	
Average malpractice award payments	\$545,729	
Databank reports per 1,000 physicians	30.5	
Provider apology is inadmissible as evidence	Yes	
Patient compensation fund	No	
Number of insurers writing medical liability policies per 1,000 physicians	54.5	
Average medical liability insurance premium for primary care physicians	\$17,138	
Average medical liability insurance premium for specialists	\$71,248	
Presence of pretrial screening panels	Mandatory	
Pretrial screening panel's findings admissible as evidence	Yes	
Periodic payments	At court's discretion	
Medical liability cap on non-economic damages	None	
Additional liability protection for EMTALA-mandated emergency care	No	
Joint and several liability abolished	Yes	

Collateral source rule, provides for awards to be offset	No	
State provides for case certification	No	
Expert witness must be of the same specialty as the defendant	No	
Expert witness must be licensed to practice medicine in the state	No	
QUALITY & PATIENT SAFETY ENVIRONMENT		F
Funding for quality improvement within the EMS system	No	
Funded state EMS medical director	No	
Emergency medicine residents per 1M pop.	0	
Adverse event reporting required	Yes	
% of counties with E-911 capability	91.7	
Uniform system for providing pre-arrival instructions	No	
CDC guidelines are basis for state field triage protocols	No	
State has or is working on a stroke system of care	Yes	
Triage and destination policy in place for stroke patients	No	
State has or is working on a PCI network or a STEMI system of care	Yes	
Triage and destination policy in place for STEMI patients	No	
Statewide trauma registry	Yes	
Triage and destination policy in place for trauma patients	No	
Prescription drug monitoring program (range 0-4)	2	
% of hospitals with computerized practitioner order entry	66.7	
% of hospitals with electronic medical records	77.8	
% of patients with AMI given PCI within 90 minutes of arrival	91	
Median time to transfer to another facility for acute coronary intervention	178	
% of patients with AMI who received aspirin within 24 hours	99	
% of hospitals collecting data on race/ethnicity and primary language	53.1	
% of hospitals having or planning to develop a diversity strategy/plan	40.6	
PUBLIC HEALTH & INJURY PREVENTION		F
Traffic fatalities per 100,000 pop.	26.9	
Bicyclist fatalities per 100,000 cyclists	1.8	
Pedestrian fatalities per 100,000 pedestrians	1.7	
% of traffic fatalities alcohol related	31	
Front occupant restraint use (%)	82.6	
Helmet use required for all motorcycle riders	No	
Child safety seat/seat belt legislation (range 0-10)	6	
Distracted driving legislation (range 0-4)	2	
Graduated drivers' license legislation (range 0-5)	0	
% of children immunized, aged 19-35 months	70.3	
% of adults aged 65+ who received flu vaccine in past year	54.5	
% of adults aged 65+ who ever received pneumococcal vaccine	66.5	
Fatal occupational injuries per 1M workers	99.0	
Homicides and suicides (non-motor vehicle) per 100,000 pop.	24.6	
Unintentional fall-related fatal injuries per 100,000 pop.	8.2	
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.1	

Unintentional firearm-related fatal injuries per 100,000 pop.	0.5	
Unintentional poisoning-related fatal injuries per 100,000 pop.	13.7	
Total injury prevention funds per 1,000 pop.	NR	
Dedicated child injury prevention funding	NR	
Dedicated elderly injury prevention funding	NR	
Dedicated occupational injury prevention funding	NR	
Gun-purchasing legislation (range 0-6)	0	
Anti-smoking legislation (range 0-3)	0	
Infant mortality rate per 1,000 live births	6.8	
Binge alcohol drinkers, % of adults	18.9	
Current smokers, % of adults	23.0	
% of adults with BMI >30	25.0	
% of children obese	10.7	
Cardiovascular disease disparity ratio	1.9	
HIV diagnoses disparity ratio	NR	
Infant mortality disparity ratio	1.2	
DISASTER PREPAREDNESS		F
Per capita federal disaster preparedness funds	\$18.84	
State budget line item for health care surge	NR	
ESF-8 plan shared with all EMS and essential hospital personnel	NR	
Emergency physician input into the state planning process	Yes	
Public health and emergency physician input during an ESF-8 response	Yes	
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	2.3	
Accredited by the Emergency Management Accreditation Program	No	
Special needs patients in medical response plan	Yes	
Patients on medication for chronic conditions in medical response plan	No	
Medical response plan for supplying dialysis	No	
Mental health patients in medical response plan	Yes	
Medical response plan for supplying psychotropic medication	No	
Mutual aid agreements with behavioral health providers	State-level	
Long-term care and nursing home facilities must have written disaster plan	Yes	
State able to report number of exercises with long-term care or nursing home facilities	No	
"Just-in-time" training systems in place	Statewide	
Statewide medical communication system with one layer of redundancy	No	
Statewide patient tracking system	No	
Statewide real-time or near real-time syndromic surveillance system	Yes	
Real-time surveillance system in place for common ED presentations	NR	
Bed surge capacity per 1M pop.	931.6	
ICU beds per 1M pop.	163.1	
Burn unit beds per 1M pop.	0.0	
Verified burn centers per 1M pop.	0.0	
Physicians in ESAR-VHP per 1M pop.	6.9	
Nurses in ESAR-VHP per 1M pop.	150.9	
Behavioral health professionals in ESAR-VHP per 1M pop.	19.1	
Strike teams or medical assistance teams	No	
Disaster training required for essential hospital, EMS personnel	No, Yes	
Liability protections for health care workers during a disaster (range 0-4)	4	
% of RNs received disaster training	39.5	

NR = Not reported
N/A = Not applicable



Puerto Rico

The assessment of Puerto Rico's emergency care environment uses a similar methodology to that applied to the 50 states and the District of Columbia. As such, the data presented for Puerto Rico are from the same sources as that presented for the states, with very few exceptions (noted in the appendices). Since much of the data collected for the states did not include Puerto Rico, a true comparison is not possible and a grade was not calculated.

Puerto Rico faces many of the same challenges that greatly affect the overall emergency care environment in numerous states, such as health care workforce shortages, long emergency department (ED) wait times, chronic disease risk factors, a medical liability crisis, and gaps in statewide policies and planning. Puerto Rico also faces additional challenges unique to the island, such as a lack of many data collection mechanisms that allow most states in the nation to efficiently and effectively review and address areas needing significant improvement.

Access to Emergency Care in Puerto Rico does not appear to have improved greatly since the 2009 Report Card; however, there are some areas of improvement. The number of registered nurses has increased by nearly 25%, from 395.3 to 494.3 nurses per 100,000 people. This positive trend is tempered, however, by exceedingly low per capita rates of specialists. Compared to the states,

Puerto Rico has less than half the rates of emergency physicians; neurosurgeons; orthopedists and hand surgeons; plastic surgeons; and ear, nose, and throat specialists. While Puerto Rico has seen very slight increases in the rates of psychiatric care beds and staffed inpatient beds (3.7 and 243.2 per 100,000 people), two hospital closures in 2011 likely contributed to the overall increase in the already high hospital occupancy rate (79.2 per 100 staffed beds). All of these factors contribute to excessively long ED wait times (778 minutes from ED arrival to departure), meaning that patients

can expect to wait 13 hours to be admitted into a hospital room.

In the *Quality and Patient Safety Environment*, Puerto Rico continues to fund an emergency medical services medical director position and has increased the number of emergency medicine residents considerably since the previous Report Card (from 7.4 to 12.3 per 1 million people). Puerto Rico has also implemented a uniform system for providing pre-arrival instructions, which can improve patient outcomes, and continues to maintain a territory-wide trauma registry. On the other hand, Puerto Rico has not worked to develop a stroke or ST-elevation myocardial infarction (STEMI) system of care, and while it has field trauma triage protocols, they are not specifically based on Centers for Disease Control and Prevention guidelines.

The proportion of patients with acute myocardial infarction (AMI) receiving percutaneous coronary intervention within 90 minutes of arrival has increased from 17% to 54% since the 2009 Report Card; however, these rates are significantly lower than in the states, where 93.1% of patients receive this level of care. Hospital adoption of electronic medical records and computerized practitioner order entry are also exceedingly low (12.5% and 25.0%, respectively), and few hospitals collect data on patients' race and ethnicity and primary language (17.5%). However,

Puerto Rico reports a high proportion of AMI patients receiving aspirin within 24 hours before their ED arrival or during their time in the ED (94%).

Puerto Rico's *Medical Liability Environment* has not improved since the 2009 Report Card, despite numerous efforts to address the crisis. While the average malpractice award payment has mildly decreased, the number of award payments has increased (6.3 per 100,000 people) and is now more than twice the average across the states (2.4 per 100,000 people). In addition, the number of National Practitioner Data-bank Reports (49.4 per 1,000 physicians) is extraordinarily high and indicative of

a particularly litigious environment. The number of insurers writing medical liability policies is among the lowest in the nation (1.6 per 1,000 physicians), which can result in excessively high premiums and poor policy coverage. Puerto Rico has done little to lighten this burden, having failed to pass significant expert witness rules or require pretrial screening panels before a case can be heard. Puerto Rico has provisions for alternative dispute resolution; however, it is at the judge's discretion to request that an arbitration panel review the case. Puerto Rico has not abolished joint and several liability, which would ensure that health care providers are only held liable for their own actions and not those of other parties.

In *Public Health and Injury Prevention*, Puerto Rico can boast some significant improvements since the 2009 Report Card. The proportion of traffic fatalities that are alcohol-related decreased 6 percentage points to be on par with the nation overall. Puerto Rico also continues to have a high rate of seatbelt use among front-seat occupants (91.9%), surpassing the national rate (84.0%), as well as a helmet requirement for all motorcycle riders. With regard to health risk factors, the infant mortality rate has declined slightly but is still significantly higher than the average across the states. On the other hand, the proportions of adults engaging in smoking and binge drinking have increased slightly but remain well below the national averages. One major concern for Puerto Rico is declining immunization rates among older adults: Only 28.6% of the elderly reported receiving an influenza vaccination in the previous year and fewer than 23% reported ever having received a pneumococcal vaccine.

Unfortunately, much of the *Disaster Preparedness* data for this Report Card were collected via a state-by-state survey of disaster preparedness officials that was not completed by Puerto Rico. What few data are available, however, provide evidence of a limited infrastructure for responding quickly and effectively in the event of a disaster or mass casualty event. Puerto Rico has no burn

continued on page 120

unit beds and only 70.1 intensive care unit (ICU) beds per 1 million people, compared to an average of 290.6 per 1 million across the states. Additionally, bed surge capacity is considerably lower than in the states (610.6 per 1 million people). This may be particularly problematic for Puerto Rico, since it cannot take advantage of mutual aid agreements from hospital and medical facilities in nearby states during an emergency.

Recommendations. Puerto Rico's failure to reform its *Medical Liability Environment* is a major concern, since an adversarial litigation environment can discourage health care providers from moving to or practicing in the area. Full or even partial abolishment of joint and several liability, already undertaken by 36 states, would provide one measure of fair protection for providers. Reforms that discourage frivolous lawsuits, such as pretrial screening panels or case certification, would also be an important step in taming Puerto Rico's litigious environment.

As noted above, Puerto Rico faces a health care provider shortage, particularly for emergency physicians and surgical specialists. Advancing medical liability reform would help to retain current providers. Puerto Rico should also investigate other reasons for provider shortages, such as the loss of talented physicians to the mainland or an inadequate pipeline for attracting talented high school and college students to medical schools. These provider shortages affect all aspects of health on the island, from routine preventive care and necessary emergency care to the territory's ability to prepare adequately for a disaster situation.

Little can be said about *Disaster Preparedness* due to a lack of information, but Puerto Rico should explore increasing its hospital capacity for responding to a disaster situation, in addition to expanding its workforce. Puerto Rico has very few ICU beds available and no burn beds, which may result in critical overcrowding in the event of natural disasters, such as hurricanes and floods. Although Puerto Rico has a Medical Reserve

Corps, it should explore the development of an Emergency System for Advance Registration of Volunteer Health Professionals. This system standardizes the recruitment of emergency volunteers and provides guidance in verifying credentials, licenses, and hospital privileges so that the government can confirm that qualified medical response volunteers are mobilized quickly.

To improve the overall health of its citizens, Puerto Rico must address the critically low rates of immunizations among older adults in order to improve health outcomes and lessen the burden on the emergency system of care. Reducing rates of preventable deaths should be a priority, and Puerto Rico should continue outreach and education efforts to further lessen the impact of alcohol use in traffic fatality rates.

Finally, electronic medical records and computerized practitioner order entry can help reduce medication and treatment mistakes in hospitals, and Puerto Rico should encourage its medical facilities to speed up their adoption of these technologies.

ACCESS TO EMERGENCY CARE	
Emergency physicians per 100,000 pop.	5.4
Neurosurgeons per 100,000 pop.	0.8
Orthopedists and hand surgeon specialists per 100,000 pop.	3.5
Plastic surgeons per 100,000 pop.	0.8
ENT specialists per 100,000 pop.	1.7
Registered nurses per 100,000 pop.	494.3
Additional primary care FTEs needed per 100,000 pop.	2.5
Additional mental health FTEs needed per 100,000 pop.	0.1
Accredited chest pain centers per 1M pop.	0.3
Pediatric specialty centers per 1M pop.	1.4
% of adults underinsured	15.3
Emergency departments per 1M pop.	4.4
Hospital closures in 2011	2
Staffed inpatient beds per 100,000 pop.	243.2
Hospital occupancy rate per 100 staffed beds	79.2
Psychiatric care beds per 100,000 pop.	3.7
Median time from ED arrival to ED departure for admitted ED patients	778
State collects data on diversion	No

MEDICAL LIABILITY ENVIRONMENT	
Malpractice award payments per 100,000 pop.	6.3
Average malpractice award payments	\$51,783
National Practitioner Databank reports per 1,000 physicians	49.1
Number of insurers writing medical liability policies per 1,000 physician	1.1

QUALITY & PATIENT SAFETY ENVIRONMENT	
Funded state EMS medical director	Yes
Emergency medicine residents per 1M pop.	12.3
Uniform system for providing pre-arrival instructions	Yes
CDC guidelines are basis for state field triage protocols	No
State has or is working on a stroke system of care	No
State has or is working on a PCI network or a STEMI system of care	No
Median maintains statewide trauma registry	Yes
% of hospitals with computerized practitioner order entry	25
% of hospitals with EMR	12.5
% of patients with AMI given PCI	54
% of patients with AMI who received aspirin	94
% of hospitals collecting data on race/ethnicity, primary language	17.5
% of hospitals having or planning to develop diversity strategy/plan	15.8

PUBLIC HEALTH & INJURY PREVENTION	
Traffic fatalities per 100,000	9.1
% of traffic fatalities alcohol-related	36
Front occupant restraint use (%)	91.9
Helmet use required for all motorcycl/cye riders	Yes
% of adults aged 65+ who rec'd an influenza vaccine in the past year	28.6
% of adults aged 65+ who ever rec'd pneumococcal vaccine	22.9
Gun purchasing legislation (range 0-6)	3
Anti-smoking legislation (range 0-3)	3
Infant mortality rate per 1,000 live births	8.1
% of adults who binge drink	15.3
% of adults who currently smoke	14.8
% of adult population who are obese (BMI > 30.0)	26.3
Cardiovascular disease disparity ratio	2.5

DISASTER PREPAREDNESS	
Per capita federal disaster preparedness funds	\$2.11
Bed surge capacity per 1M pop.	610.6
ICU beds per 1M pop.	70.1
Burn unit beds per 1M pop.	0
Verified burn centers per 1M pop.	0

NR = Not reported
N/A = Not applicable

Government Services

This section addresses the emergency medicine services provided by the Military Health System (MHS) and the Veterans Health Administration (VHA). The MHS maintains 231 military treatment facilities (MTFs), and the MHS/TRICARE system provides coverage for 9.7 million beneficiaries, including active duty personnel, retirees and their dependents. In addition, the VHA provides care for 8.5 million enrollees through 152 hospitals and 802 community-based outpatient clinics.

This report card for government services does not use the same methodology as was used for the states. The data available for the military and veterans' health systems and the different context of the services provided do not allow for the collection of the same measures or a direct comparison with the states. Rather, this report card is based on the available data and on detailed interviews with experts in the field, including representatives of the Army, Navy, and Air Force medical systems and the Veterans Health Administration. During these interviews, we discussed the major issues affecting their systems in the areas of access, public health and injury prevention, quality and patient safety, and disaster preparedness. (The area of liability is not directly relevant in these systems because, as government employees, MHS and VHA physicians do not face personal liability lawsuits.) The findings of these interviews are summarized below.

Access to Emergency Care. In general, beneficiaries of the MHS and VHA have the advantage of universal health insurance and consistent access to care. All of the military branches and the VHA are focusing on the development of Patient Centered Medical Homes (or, within the VHA, Patient-Aligned Care Teams) for all beneficiaries, to assure access to coordinated primary care. Access to specific specialty providers is still somewhat limited, particularly in the area of mental health services, and

patients are referred to the civilian system (although in some cases, such as pediatric mental health services, providers may still be difficult to find) when there is a need. The demand for mental health services within the MHS continues to increase among both active duty enrollees and family members, causing further strain on the behavioral health care system.

In addition, the deployment of providers still presents a barrier to access for MHS beneficiaries. While the Army has seen a steep decline in deployments since the withdrawal from Iraq, the Navy and Air Force are still experiencing high levels of deployments, particularly of orthopedists and emergency physicians, to Afghanistan. While diversion is not unheard of, it is rare, because admission rates are low and boarding is not a problem.

Quality and Patient Safety. Within the MHS, all branches participate in the Healthcare Effectiveness Data and Information Set (HEDIS), report indicators to The Joint Commission, and conduct patient satisfaction surveys. The various branches are also pursuing their own quality monitoring efforts; for example, the Air Force is looking closely at process improvement indicators for emergency departments, including door-to-doctor time, door-to-floor time, and the percentage of patients in the ED for more than 6 hours. This has led to significant improvements in patient flow. The Navy is focusing on the development and implementation of clinical practice

guidelines, focusing first on low back pain, post-traumatic stress disorder (PTSD), and women's preventive health. The MHS as a whole is focusing on the monitoring and improvement of evidence-based practices such as administration of antibiotics within one hour of surgery, screening for low-density lipoprotein (LDL) among patients with cardiovascular disease, and screening for Hemoglobin A1c in diabet-

ics. The system is also monitoring access to primary care, satisfaction with various aspects of care, and primary care continuity.

The VHA has long been a leader in quality measurement and monitoring. Since 2008, the agency has published an annual facility-level report on quality and patient safety, including indicators of staffing levels, utilization volume, patient safety, health equity, quality, mortality, and timeliness of care.

The use of electronic health records is inconsistent across the MHS and VHA. The VHA has had electronic medical records in place since the 1970s, and uses one system across the agency nationwide. An integrated system within the emergency department has been in place for only a few years, however. Within the MHS, the use of EHRs is inconsistent; the Air Force only uses an electronic system for lab orders and prescriptions; while the Navy has an electronic system, they are considering replacing it; and the Army reports that they have a number of systems in place but no system that was specifically designed for use in the ED.

Public Health and Injury Prevention.

The population enrolled in the MHS is, as a whole, healthier than the general U.S. population; the VHA, on the other hand, serves a riskier population, with high levels of smoking and diabetes. However, both the MHS and the VHA face specific health risks within their populations and are working to address these issues.

Injury is an ever-present risk among active duty MHS enrollees. Military bases strictly enforce safety regulations such as bicycle helmet requirements, a ban on cell phone use while driving on the base, motorcycle safety training requirements, and random breathalyzers. The Navy conducts an annual General Military Training for all members each year, focusing on the root causes and prevention of injury.

Physical fitness is also of utmost importance to the military. The MHS also implements "individual medical readiness"

continued on page 122

The MHS and the VHA can provide a model for civilian health systems, but could benefit from improvements in mental health care.

Government Services, continued

assessments, a part of the Army Comprehensive Soldier Fitness program, which is being expanded to include family members. The MHS tracks obesity levels within its enrollees, and has found that active duty members are less likely to be obese than the general population (although obesity rates among new recruits appear to be increasing), while retired members are more likely to be obese. The rate of smoking is higher among active duty enrollees than other enrollees, and nearly one-third of service members aged 18-24 use tobacco in some form. The Army Surgeon General is currently conducting a major campaign on sleep, nutrition, and exercise.

Throughout the MHS there is an emphasis on recognizing, diagnosing, and intervening for mental illness and suicide prevention. The MHS tracks referrals for PTSD, which increased from 2009-2010 and declined a bit in 2011, to a level higher than that found in 2005; this is attributed to physicians' increasing willingness to recognize and refer. The system has also instituted a comprehensive program to identify and treat PTSD, leading to improved treatment response.

The VHA is seeing a change in the health profile of its beneficiaries. The influx of younger vets, along with the decline in the population of World War II vets, has shifted the primary risks from chronic physical illness to mental illness.

The military branches vary in their approach to the abuse of painkillers, which is becoming an increasing problem among wounded warriors. The Army has a central database for all prescriptions, and a Controlled Substance Advisory Group tracks heavy users and identifies a single provider to monitor them. The Navy has instituted a comprehensive pain management program at the hospital level to treat patients and educate providers on issues such as non-narcotic alternative medications, complementary and alternative medicine, prescription drug abuse, and measures of effectiveness. Teams are being trained now for implementation of this program during this fiscal year.

Disaster Preparedness. All of the military branches are dedicated to their role in disaster preparedness both domestically and worldwide. They conduct regular tabletop or simulation drills, have all-hazards plans in place, and coordinate with local plans and systems in the states in which their bases are located. The Air Force, for example, conducts drills at least quarterly, the Army does so twice a year, and the Navy conducts mass casualty drills annually and radiation drills quarterly. Larger exercises will also involve civilian partners, such as an Air Force drill involving a scenario at an air show, and the Navy involves the local communities in its radiation drills.

All members are trained regularly in mass casualty response. The Air Force requires a training every year; the Navy conducts both online and in-person trainings, and a chemical and biological weapons response course is required for all. The Navy has also created a new fellowship in Emergency Preparedness and Disaster Response, consisting of a year of clinical training and the coursework for an MPH degree.

The branches have their own real-time notification systems through their own chains of command, and are included in civilian systems as well. The military hospitals all monitor their own surge capacities.

Within the VHA, emergency response is handled through an emergency management department, with offices on the regional and national levels. They too conduct regular drills, cooperate with their communities on their drills, and have an emergency manager in each facility.

Overall Assessment. The MHS and the VHA continue to provide a model for the civilian health care system in access to primary care, disaster preparedness, and injury prevention, and their approach to quality monitoring appears to have improved in recent years. However, these systems face particular challenges in the mental health arena and in the consistent use of electronic health records.

America's Emergency Care Environment, A State-by-State Report Card

2014 Edition

Appendices & Tables

Summary Statistics for State Comparisons

Indicator†	U.S. Average (or potential responses)‡	BEST Value (or n/N)	WORST Value
Access to Emergency Care			
Access to providers			
Board-certified emergency physicians per 100,000 pop.	10.1*	18.2	4.3
Emergency physicians per 100,000 pop.	13.5*	35.4	6.8
Neurosurgeons per 100,000 pop.	2.1*	7.6	1.0
Orthopedists and hand surgeon specialists per 100,000 pop.	9.7*	17.9	6.1
Plastic surgeons per 100,000 pop.	2.2*	7.4	0.5
ENT specialists per 100,000 pop.	3.5*	10.1	2.0
Registered nurses per 100,000 pop.	941.9*	1725.3	605.5
Additional primary care FTEs needed per 100,000 pop.	2.5*	0.1	7.4
Additional mental health FTEs needed per 100,000 pop.	0.8*	0.0	3.4
% of children able to see provider	94.9	98.1	91.7
Access to treatment centers			
Level I or II trauma centers per 1M pop.	1.8*	8.6	0.4
% of population within 60 minutes of Level I or II trauma center	82.1*	100.0	17.9
Accredited chest pain centers per 1M pop.	2.5*	10.2	0.0
% of population with an unmet need for substance abuse treatment	8.9*	6.6	11.9
Pediatric specialty centers per 1M pop.	3.6*	10.0	0.7
Financial barriers			
Physicians accepting Medicare per 100 beneficiaries (fee-for-service)	3.1*	5.5	1.7
Medicaid fee levels for office visits as a % of the national average	100.0	229.1	39.9
% change in Medicaid fees for office visits (2007 to 2012)	24.2*	121.7	-20.5
% of adults with no health insurance	17.7	3.6	26.9
% of adults underinsured	9.0	4.6	10.2
% of children with no health insurance	9.4	2.5	21.0
% of children underinsured	18.0	11.8	23.2
% of adults with Medicaid	10.1*	20.3	3.6
Hospital capacity			
Emergency departments per 1M pop.	18.9*	58.8	6.7
Hospital closures in 2011	0.4*	0.0	3.0
Staffed inpatient beds per 100,000 pop.	329.5*	703.8	204.9
Hospital occupancy rate per 100 staffed beds	65.0*	52.6	80.3
Psychiatric care beds per 100,000 pop.	26.1*	52.7	5.5
Median minutes from ED arrival to ED departure for admitted patients	272*	176	452
State collects data on diversion	Yes or No	Yes (24/44)	—
Medical Liability Environment			
Legal atmosphere			
Lawyers per 10,000 pop.	24.5	9.1	458.8
Lawyers per physician	0.7	0.4	5.7
Lawyers per emergency physician	14.6	6.2	129.5
ATRA judicial heliholes (range 2 to 6)	-0.3*	2.0	-6.0
Malpractice award payments per 100,000 pop.	2.4*	0.7	6.1
Average malpractice award payment	\$311,088*	\$75,882	\$681,839
National Practitioner Databank reports per 1,000 physicians	26.4*	7.8	57.8
Provider apology is inadmissible as evidence	Yes or No	Yes (37/51)	—
State has implemented a patient compensation fund	Yes or No	Yes (9/51)	—
Insurance availability			
Number of insurers writing medical liability policies per 1,000 physicians	11.0*	54.5	1.1
Average medical liability insurance premiums for primary care physicians	\$13,338*	\$3,837	\$31,133
Average medical liability insurance premiums for specialists	\$57,459*	\$16,519	\$128,555

See legend on reverse

Indicator†	U.S. Average (or potential responses)‡	BEST Value (or n/N)	WORST Value
Tort reform			
Presence of pretrial screening panels	Mandatory	14 / 51	—
	Voluntary	6 / 51	—
	None	31 / 51	—
Pretrial screening panels findings admissible as evidence	Yes or No	Yes (9/20)	—
Periodic payments	Required by state	5 / 51	—
	Upon request	19 / 51	—
	At court's discretion	14 / 51	—
	No	13 / 51	—
Medical liability cap on non-economic damages	\$250,000	4 / 51	—
	>\$250-350k	4 / 51	—
	>\$350-500k	11 / 51	—
	>\$500,000	11 / 51	—
	None	21 / 51	—
Additional liability protection for EMTALA-mandated emergency care	Yes or No	Yes (8/51)	—
Joint and several liability abolished	Yes	27 / 51	—
	Partially	9 / 51	—
	No	15 / 51	—
Collateral source rule enacted and provides for awards to be offset	Yes	24 / 51	—
	Yes, no offset	9 / 51	—
	No	18 / 51	—
State provides for case certification	Yes or No	Yes (24/51)	—
Expert witness required to be of the same specialty as the defendant	Yes or No	Yes (21/51)	—
Expert witness must be licensed to practice medicine in the state	Yes or No	Yes (3/51)	—
Quality & Patient Safety Environment			
State systems			
Funding for quality improvement within the EMS system	Yes or No	Yes (23/49)	—
Funded state EMS medical director	Yes or No	Yes (33/51)	—
Emergency medicine residents per 1M pop.	18.3*	107.5	0.0
Adverse event reporting required	Yes or No	Yes (27/51)	—
% of counties with Enhanced 911 capability	96.9*	100	55.6
State has a uniform system for providing pre-arrival instructions	Yes or No	Yes (17/49)	—
State uses CDC guidelines as basis for state field triage protocols	Yes (2011 guidelines)	23/48	—
	Yes (2006 guidelines)	8/48	—
	No	7/48	—
	No protocols	10/48	—
State has or is working on a stroke system of care	Yes or No	Yes (44/50)	—
State has triage and destination policy in place for stroke patients	Yes or No	Yes (24/50)	—
State has or is working on a PCI network or a STEMI system of care	Yes or No	Yes (43/50)	—
State has triage and destination policy in place for STEMI patients	Yes or No	Yes (28/50)	—
State maintains statewide trauma registry	Yes or No	Yes (43/51)	—
State has triage and destination policy in place for trauma patients	Yes or No	Yes (41/50)	—
Prescription drug monitoring program (range 0-4)	2.4*	4	0
Institution			
% of hospitals with computerized practitioner order entry	77.1	100	56.2
% of hospitals with electronic medical records	92.0	100	75.4
% of patients with AMI given PCI within 90 minutes of arrival	93.1*	98	79
Median time to transfer to another facility for acute coronary intervention	72*	28	219
% of patients with AMI who received aspirin within 24 hours	99.1*	100	99
% of hospitals collecting data on race/ethnicity and primary language	58.6*	85.8	28
% of hospitals having or planning to develop a diversity strategy or plan	44.0*	62.5	18

Summary Statistics for State Comparisons

Indicator†	U.S. Average (or potential responses)‡	BEST Value (or n/N)	WORST Value
Public Health & Injury Prevention			
Traffic safety and drunk driving			
Traffic fatalities per 100,000 pop.	9.0	1.5	26.9
Bicyclist fatalities per 100,000 cyclists	4.8	0.0	14.1
Pedestrian fatalities per 100,000 pedestrians	5.2	0.9	17.0
% of traffic fatalities alcohol related	36.3	26.0	50.0
Front occupant restraint use (%)	84.0	97.5	73.2
Helmet use required for all motorcycle riders	Yes or No	Yes (20/51)	—
Child safety seat/seat belt legislation (range 0-10)	6.1*	9.0	1.0
Distraction driving legislation (range 0-4)	2.1*	4.0	0.0
Graduated drivers' license legislation (range 0-5)	0.4*	2.0	0.0
Immunization			
% of children immunized, aged 19-35 months	77.0	84.1	66.7
% of adults aged 65+ who received flu vaccine in the past year	61.0	70.2	51.8
% of adults aged 65+ who ever received pneumococcal vaccine	70.0	76.0	62.5
Fatal injury			
Fatal occupational injuries per 1M workers	39.2*	9.9	103.4
Homicides and suicides (non-motor vehicle) per 100,000 pop.	18.8*	11.2	29.9
Unintentional fall-related fatal injuries per 100,000 pop.	9.5*	4.5	21.4
Unintentional fire/burn-related fatal injuries per 100,000 pop.	1.1*	0.4	2.7
Unintentional firearm-related fatal injuries per 100,000 pop.	0.3*	0.0	0.9
Unintentional poisoning-related fatal injuries per 100,000 pop.	10.7	2.1	25.4
State health and injury prevention efforts			
Total injury prevention funds per 1,000 pop.	\$668.97*	\$9538.38	\$0.85
Dedicated child injury prevention funding	Yes or No	Yes (37/47)	—
Dedicated elderly injury prevention funding	Yes or No	Yes (15/47)	—
Dedicated occupational injury prevention funding	Yes or No	Yes (9/47)	—
Gun-purchasing legislation (range 0-6)	1.4*	5.5	0.0
Anti-smoking legislation (range 0-3)	1.8*	3.0	0.0
Health risk factors			
Infant mortality rate per 1,000 live births	6.2	3.8	9.7
Binge alcohol drinkers, % of adults	18.3	10.0	25.0
Current smokers, % of adults	21.1	11.8	29.0
% of adults with BMI >30	27.8	20.7	34.9
% of children obese	15.7	9.9	21.7
Cardiovascular disease disparity ratio	2.2*	1.1	4.6
HIV diagnoses disparity ratio	11.1*	1.1	56.0
Infant mortality disparity ratio	2.8	1.1	4.5
Disaster Preparedness			
Financial resources			
Per capita federal disaster preparedness funds	\$9.52*	\$107.37	\$4.05
State budget line item for funds specific to health care surge	Yes or No	Yes (11/47)	—

* = Based on the average across the states.
† = For continuous indicators the mean and the "best" and "worst" state values are provided; for categorical indicators the response category sample size (n) and the total sample size (N) have been provided.
‡ = Response categories have been ordered "best" to "worst", where applicable.

Indicator†	U.S. Average (or potential responses)‡	BEST Value (or n/N)	WORST Value
State coordination			
ESF-8 plan shared with all EMS and essential hospital personnel	Yes	41/49	—
	No	5/49	—
	No plan	3/49	—
Emergency physician input into the state planning process	Yes or No	Yes (43/50)	—
Public health and emergency physician input during an ESF-8 response	Yes (both)	38/49	—
	No, Yes	8/49	—
	No	3/49	—
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	3.3*	19	0
Accredited by the Emergency Management Accreditation Program	Yes, accredited	28/51	—
	Conditionally	1/51	—
	No	22/51	—
Special needs patients in medical response plan	Yes or No	Yes (44/48)	—
Patients on medication for chronic conditions in medical response plan	Yes or No	Yes (25/48)	—
Medical response plan for supplying dialysis	Yes or No	Yes (27/48)	—
Mental health patients in medical response plan	Yes or No	Yes (35/48)	—
Medical response plan for supplying psychotropic medication	Yes or No	Yes (18/48)	—
Mutual aid agreements with behavioral health providers	Statewide	37/51	—
	Local	8/51	—
	None	6/51	—
Long-term care and nursing home facilities must have written disaster plan	Yes or No	Yes (46/51)	—
State able to report number of exercises with long-term care or nursing home facilities	Yes or No	Yes (29/49)	—
"Just-in-time" training systems in place	Statewide	36/49	—
	City- or County-wide	8/49	—
	Across coalitions	2/49	—
	None	3/49	—
Statewide medical communication system with one layer of redundancy	Yes or No	Yes (45/51)	—
Statewide patient tracking system	Yes or No	Yes (26/51)	—
Statewide real-time or near real-time syndromic surveillance system	Yes or No	Yes (36/48)	—
Real-time surveillance system in place for common ED presentations	Statewide	28/47	—
	Metro areas	5/47	—
	No	14/47	—
Hospital capacity			
Bed surge capacity per 1M pop.	933.8*	6968.7	176.9
ICU beds per 1M pop.	290.6*	687.9	117.8
Burn unit beds per 1M pop.	5.9*	31.6	0.0
Verified burn centers per 1M pop.	0.2*	1.6	0.0
Personnel			
Physicians registered in ESAR-VHP per 1M pop.	61.0*	656.8	0.0
Nurses registered in ESAR-VHP per 1M pop.	279.6*	1069.1	0.0
Behavioral health professionals registered in ESAR-VHP per 1M pop.	21.5*	81.9	0.0
State or regional strike teams or medical assistance teams	Yes or No	Yes (38/50)	—
Disaster training required for essential hospital, EMS personnel	Yes (both)	5/43	—
	Yes, No	1/43	—
	No, Yes	9/43	—
	No (neither)	28/43	—
Liability protections for health care workers during a disaster (range 0-4)	2.9*	4	0
% of RNs that received disaster training	39.9*	57.2	28.8

STATE	Access to Emergency Care		Quality & Patient Safety Environment		Medical Liability Environment		Public Health & Injury Prevention		Disaster Preparedness		Overall	
	RANK	GRADE	RANK	GRADE	RANK	GRADE	RANK	GRADE	RANK	GRADE	RANK	GRADE
AL	41	F	28	C	31	D	43	F	15	C+	44	D
AK	38	F	46	F	9	B	44	F	18	C	42	D
AZ	48	F	14	B-	29	C-	26	D+	24	C-	31	D+
AR	39	F	41	D	37	D-	48	F	36	D-	50	D-
CA	42	F	32	C-	20	C+	10	B+	30	C-	23	C-
CO	22	D+	11	B-	1	A	17	B-	22	C	5	C+
CT	18	C-	18	C+	32	D	8	B+	29	C-	15	C
DE	7	C+	7	B+	34	D	36	D-	38	F	20	C-
DC	1	A	9	B	51	F	24	D+	1	A	1	B-
FL	49	F	17	C+	28	C	30	D+	16	C+	27	C-
GA	46	F	26	C	12	B-	31	D+	32	D+	29	D+
HI	44	F	16	B-	30	D+	2	A	41	F	24	C-
ID	43	F	45	F	3	A-	33	D+	48	F	41	D
IL	24	D	22	C+	50	F	29	D+	43	F	45	D
IN	20	D+	39	D	23	C	35	D	42	F	40	D+
IA	13	C-	27	C	27	C	14	B	14	C+	11	C
KS	14	C-	44	F	4	A-	18	C+	26	C-	16	C
KY	12	C	43	F	48	F	34	D	33	D	47	D
LA	34	F	49	F	26	C	45	F	3	B+	42	D
ME	3	B	6	B+	21	C	7	A-	49	F	3	B-
MD	23	D	1	A	47	F	9	B+	10	B-	10	C
MA	4	B	5	B+	40	D-	1	A	20	C	2	B-
MI	32	F	33	C-	33	D	27	D+	25	C-	46	D
MN	15	C-	40	D	13	B-	6	A-	28	C-	12	C
MS	16	C-	38	D+	22	C	50	F	19	C	26	C-
MO	6	C+	20	C+	45	F	46	F	8	B-	22	C-
MT	31	F	50	F	10	B	39	D-	45	F	48	D
NE	9	C	24	C+	5	B+	16	B-	7	B-	4	B-
NV	51	F	48	F	15	B-	28	D+	5	B	36	D+
NH	30	D-	10	B	41	D-	32	D+	12	C+	28	D+
NJ	36	F	19	C+	44	F	11	B	13	C+	30	D+
NM	50	F	34	D+	36	D-	25	D+	34	D	49	D
NY	17	C-	23	C+	49	F	12	B	4	B	13	C
NC	27	D	4	A-	24	C	23	C-	27	C-	13	C
ND	8	C	36	D+	8	B+	38	D-	2	A	8	C+
OH	5	B-	15	B-	6	B+	22	C-	51	F	7	C+
OK	40	F	37	D+	17	C+	40	D-	6	B-	37	D+
OR	35	F	21	C+	35	D	3	A-	37	D-	32	D+
PA	2	B+	3	A	43	F	21	C-	17	C+	6	C+
RI	10	C	35	D+	46	F	15	B	9	B-	18	C-
SC	45	F	13	B-	7	B+	51	F	46	F	33	D+
SD	21	D+	47	F	19	C+	41	D-	31	D+	39	D+
TN	26	D	29	C	11	B	37	D-	11	B-	17	C-
TX	47	F	42	F	2	A	49	F	21	C	38	D+
UT	28	D-	2	A	14	B-	4	A-	44	F	9	C+
VT	25	D	25	C+	39	D-	13	B	40	F	33	D+
VA	29	D-	12	B-	25	C	19	C+	23	C	18	C-
WA	37	F	8	B	42	F	5	A-	50	F	35	D+
WV	11	C	30	C-	16	C+	42	F	35	D	24	C-
WI	19	C-	31	C-	18	C+	20	C+	39	F	21	C-
WY	33	F	51	F	38	D-	47	F	47	F	51	F
Nation	D-		C		C-		C		C-		D+	

State Rank	Access to Emergency Care	Quality & Patient Safety Environment	Medical Liability Environment	Public Health & Injury Prevention	Disaster Preparedness	Overall
1	DC	MD	CO	MA	DC	DC
2	PA	UT	TX	HI	ND	MA
3	ME	PA	ID	OR	LA	ME
4	MA	NC	KS	UT	NY	NE
5	OH	MA	NE	WA	NV	CO
6	MO	ME	OH	MN	OK	PA
7	DE	DE	SC	ME	NE	OH
8	ND	WA	ND	CT	MO	ND
9	NE	DC	AK	MD	RI	UT
10	RI	NH	MT	CA	MD	MD
11	WV	CO	TN	NJ	TN	IO
12	KY	VA	GA	NY	NH	MN
13	IO	SC	MN	VT	NJ	NY
14	KS	AZ	UT	IO	IO	NC*
15	MN	OH	NV	RI	AL	CT
16	MS	HI	WV	NE	FL	KS
17	NY	FL	OK	CO	PA	TN
18	CT	CT	WI	KS	AK	RI
19	WI	NJ	SD	VA	MS	VA*
20	IN	MO	CA	WI	MA	DE
21	SD	OR	ME	PA	TX	WI
22	CO	IL	MS	OH	CO	MO
23	MD	NY	IN	NC	VA	CA
24	IL	NE	NC	DC	AZ	WV
25	VT	VT	VA	NM	MI	HI*
26	TN	GA	LA	AZ	KS	MS
27	NC	IO	IO	MI	NC	FL
28	UT	AL	FL	NV	MN	NH
29	VA	TN	AZ	IL	CT	GA
30	NH	WV	HI	FL	CA	NJ
31	MT	WI	AL	GA	SD	AZ
32	MI	CA	CT	NH	GA	OR
33	WY	MI	MI	ID	KY	VT
34	LA	NM	DE	KY	NM	SC*
35	OR	RI	OR	IN	WV	WA
36	NJ	ND	NM	DE	AR	NV
37	WA	OK	AR	TN	OR	OK
38	AK	MS	WY	ND	DE	TX
39	AR	IN	VT	MT	WI	SD
40	OK	MN	MA	OK	VT	IN
41	AL	AR	NH	SD	HI	ID
42	CA	TX	WA	WV	IN	LA
43	ID	KY	PA	AL	IL	AK*
44	HI	KS	NJ	AK	UT	AL
45	SC	ID	MO	LA	MT	IL
46	GA	AK	RI	MO	SC	MI
47	TX	SD	MD	WY	WY	KY
48	AZ	NV	KY	AR	ID	MT
49	FL	LA	NY	TX	ME	NM
50	NM	MT	IL	MS	WA	AR
51	NV	WY	DC	SC	OH	WY

*tied with state above

Methodology

America's Emergency Care Environment was based primarily on the 2009 *National Report Card on the State of Emergency Medicine*, with minor modifications and improvements. The process used to develop the 2014 Report Card involved the steps described below.

1) Assembling the Task Force Report Card and Work Groups

The American College of Emergency Physicians (ACEP) assembled a Report Card Task Force (RCTF) in December 2011 to oversee the development of the 2014 Report Card. ACEP staff conferred with the ACEP President who appointed the Chair of the RCTF in October 2011. The qualifications of the RCTF Chair included previous experience on the 2009 RCTF, a PhD in Epidemiology, and active clinical practice in emergency medicine. The chair subsequently worked with the RCTF staff liaison to identify and recommend ACEP members who had expertise in subject areas or specific issues directly related to the Report Card to serve on the RCTF. Criteria for selection included: topical expertise, geographic location (to ensure that most regions across the country were represented), and research experience. Based on these criteria, Task Force members were appointed by the ACEP president. The RCTF was charged with:

- Selection and oversight of a contractor to conduct the data collection, analysis, writing, and design of the Report Card,
- Providing expert advice and guidance on the selection and definition of indicators that accurately reflect the subject-matter categories being considered,
- Providing guidance on weighting the indicators and creating grades, and
- Carefully reviewing all drafts.

One of the initial tasks of the RCTF was to review and confirm the critical topic areas presented in the 2009 Report Card. The 2009 Report Card marked a significant revision from the previous (2006) Report Card, and so it was critical that the RCTF confirm the specific content areas, consider other potential content areas, and review the quantitative grading weights for each topic category.

Figure A-1. Report Card Topic Areas and Weights

Access to Emergency Care	30 percent
Quality and Patient Safety	20 percent
Medical Liability Environment	20 percent
Public Health and Injury Prevention	15 percent
Disaster Preparedness	15 percent

At the RCTF's May 2012 meeting, the full RCTF ultimately decided to keep the five topic areas used in the 2009 Report Card: Access to Emergency Care, Quality and Patient Safety Environment, Public Health and Injury Prevention, Medical Liability

Environment, and Disaster Preparedness. The RCTF also voted to maintain the relative weights for each of these major categories in calculating the overall grade, since the weights already reflected the importance of each category in improving and supporting the emergency medicine environment, as well as to maintain comparability across the current and previous Report Cards. The weights for each category are in Figure A-1. RCTF members were asked to volunteer to chair and/or participate in work groups for each of the five topic areas based on their areas of expertise.

In order to accomplish the tasks described above, the full RCTF met in person three times and by conference call five times between its inception in December 2011 and the completion of the Report Card. In addition, there were frequent and timely communications via telephone and e-mail among the RCTF, the work groups, and the contractor during this period.

For many of the deliberations described in the following sections, the contractor worked directly with the work group members when making decisions specific to their subject areas (e.g., adding or removing indicators, assigning weights to the individual indicators). When necessary the contractor and/or work group leader would consult with the Task Force Chair or the full RCTF. These exchanges between the contractor and the work groups typically took place via e-mail or phone. For more complicated decisions, such as finalizing indicator weights, the Task Force either discussed the issue during in-person meetings or via telephone until the group generally reached consensus. Some specifics around the timing and frequency of communication are included in the sections to follow.

2) Selecting Specific Indicators

During the summer of 2012, each work group met via webinar to discuss the 2009 indicators, to propose new indicators, and to consider retiring indicators for which data were no longer available or that were no longer pertinent to the overall Report Card. The selected contractor, Altarum Institute, contributed background research on the feasibility of measuring potential new indicators consistently on the state level, and shared these findings with the work groups. Based on this information, the work groups reconsidered the current and new indicators, modified definitions when necessary, and finalized the draft indicator list for each section. The draft sets of indicators were then presented to the full RCTF at an in-person meeting in October 2012 and tentatively finalized (with a small number of indicators pending a few additional questions regarding data availability).

Overall, the vast majority of the 2009 Report Card's 116 indicators were maintained, with only 8 indicators removed or replaced due to lack of current data, 3 indicators redefined, and 4 indicators removed due to a high proportion of positive responses in the 2009 Report Card. The work groups also added a number of indicators in each topic area: 4 in Access to Emer-

gency Care; 9 in Quality and Patient Safety Environment; 2 in Medical Liability Environment; 12 in Public Health and Injury Prevention; and 7 in Disaster Preparedness.

The selection of new indicators ultimately depended not only on their relative importance as determined by the RCTF, in consultation with ACEP Sections, Committees, and topic area experts as needed, but also on the availability of data. Therefore, for data element inclusion, they needed to be: 1) relevant, 2) reliable, 3) valid, 4) consistent across the states, and 5) current (collected within the past 3 years).

Similar to the 2009 Report Card, it was necessary to conduct a survey of EMS and Disaster Preparedness state officials in order to acquire data to inform indicators in the Quality and Patient Safety and Disaster Preparedness topic areas. Unlike 2009, two surveys were developed (instead of one) and fielded in the first quarter of 2013. Work group members, with as needed consultation from topic experts, reviewed and approved the surveys. The ACEP Survey of EMS Practices and Policies contained 11 questions and was sent to EMS directors in the 50 states, District of Columbia, and Puerto Rico. The overall response rate was 100%. The ACEP Survey of Disaster Preparedness Practices and Policies contained 19 questions and was first sent to Assistant Secretary of Preparedness and Response (ASPR) grantees throughout the states via a listserv. Individual follow-up was made with Disaster Preparedness officials in the states that did not respond to the initial request. The overall response rate for this survey was also 100%.

Overall, the RCTF maintained and/or developed 136 indicators across the 5 topic areas.

3) Assigning Indicator Weights

Once the set of indicators for each topic area was finalized, the work groups addressed the issue of importance of the individual indicators by assigning each indicator a weight within the category. In doing so, the workgroups considered the weights used in 2009, in part to maintain comparability between Report Cards, along with the deletion and addition of new indicators within each topic area. Each of the five broad topic areas consists of sub-categories that were developed in 2009 and assigned sub-category weights. The workgroups independently discussed and proposed maintaining the same sub-category weights that were used in the 2009 Report Card. Within each of these sub-categories, weights were assigned to each indicator reflecting the overall importance of that indicator within the sub-category. Again, these decisions were made during conference calls between the work group members and Altarum Institute. The draft weights assigned by the work groups were then presented to the full RCTF during a webinar/conference call in February 2013. Once finalized, these individual weights were used to score and grade the states within each category.

In addition to approving the indicator sets and weights proposed by the work groups, the RCTF was also responsible for revisit-

ing the scoring and grading scheme used in the 2009 Report Card. Ultimately, the RCTF determined that the same methods should be applied as were used in 2009 to ensure consistency over time in the grading calculations.

4) Comparing and Scoring States

The indicator weights added up to a total of 100 points for each of the categories. The percentage of available points scored by each state was calculated by comparing the states on each indicator, assigning them a fraction of the indicator's weight, and summing these values. The scoring convention used was largely dependent on the three types of data elements included in the Report Card: continuous, categorical, and binary. This scoring convention is described below:

- For continuous indicators, the state's values were ranked best to worst and assigned a fractional rank from 51 (best) to 1 (worst). These values were used to apportion each state a fraction of the indicator's total weight. For example, using an indicator weighted as 5 percent of the category, a state assigned a rank of 15 out of 51 (50 states plus the District of Columbia) would receive 1.47 points out of 5 ($15/51 \times 5$). In the case of a tie, each state was assigned the best rank among the tied states. In other words, if the 14th, 15th, and 16th worst states in the ordered list were tied, each would be assigned a value of 16 and allotted an identical number of points.
- For categorical indicators, states were not ranked against one another but rather assigned a fraction of the total possible points scored. For example, for an indicator worth 5 percent of the category, a state that scored 6 out of a possible 6 points would receive 5 points ($6/6 \times 5$).
- For binary responses, the state received either the full weight or none of the weight.

In addition, missing data were handled in one of two ways depending on the data source. For data that were collected from publicly available sources, missing data did not count against the states. The RCTF believed this would place too great an emphasis on missing data that may have been the result of inadequate data collection efforts (not the fault of the states) or two few cases resulting in unreliable estimates. For this reason, not all states had the same denominator (or maximum total points possible). If a state was missing data from a publicly available data source on a particular indicator, the weight for the criterion was excluded from its denominator. For example, if a state was missing data on an indicator worth 5 percent of the category (for instance, HIV diagnoses disparity ratio), then its denominator would be 95, not 100.

On the other hand, missing data on data elements that were collected from the ACEP state survey did count against the states. If a state health official did not provide a response to a survey question that was answered by the vast majority of other state respondents (after multiple requests by e-mail and telephone), the weight for that indicator was still included in the state's de-

nominator and the numerator (or points earned) was equivalent to a zero. The rationale for treating missing responses in this way was that responses to these questions should be known, available, and tracked by the state or state health and preparedness officials. For this reason, the Task Force felt that such responses should be counted against the non-responding state.

The number of points earned was then summed (numerator) along with the number of possible points (denominator) across each topic area’s indicators. The percentage of points scored was calculated for each of the states by dividing the number of points earned by the number of possible points. These values were ranked and used to calculate the state’s grades described in the next section. The state rankings for each of the categories can be found on the state pages adjacent to their grades.

5) Assigning Grades Using a Modified Curve

State level grades

This section describes the methodology used to calculate category-specific and overall grades at the state level – the same methods that were employed in the 2009 Report Card. The basis for all calculations related to category-specific grades is the percentage of points that states scored for each category. As described in the previous section, the denominators (or possible points earned) may vary across states because of missing data.

Category-specific grades. Overall, the category-specific grades were based on the number of standard deviations each state’s score fell from the maximum values. Increments of 0.25 standard deviations were used based on conventions developed for and used in the 2009 Report Card. Since grading is done on a curve, and no state scored the maximum possible number of points, the ‘A+’ and ‘A’ categories were collapsed into one group and presented as a straight ‘A’.

Figure A-2. Letter grades corresponding to number of standard deviations states’ scores fell from the maximum score

Grade	Standard deviations
A	0.00-0.50
A-	0.50-0.75
B+	0.75-1.00
B	1.00-1.25
B-	1.25-1.50
C+	1.50-1.75
C	1.75-2.00
C-	2.00-2.25
D+	2.25-2.50
D	2.50-2.75
D-	2.75-3.00
F	3.00+

Below is a step-by-step description of how the category-specific grades were calculated.

Step 1. Using the percentage of points scored for each category, the maximum value and the standard deviation were calculated based on the mean.

Step 2. The letter grades, including pluses and minuses, were calculated based on the number of standard deviations that each state’s score fell from the maximum value (as listed in Figure A-2).

Overall grades. States’ overall grades were calculated as a weighted average of the grades in each category. Similar to calculating a high school grade point average, letter grades for each category were converted to numbers, then multiplied by their relative weights (contribution to the overall grade), as previously described, and then summed. The total numeric values were then converted back to letter grades.

National level grades

Category-specific grades. The national level grades are based on population-weighted averages for each of the categories. The steps taken to determine national level grades in each category are:

Step 1. Calculate a weighted percent of points scored for each state, by multiplying each state’s percent of points scored in the category by the percentage of the U.S. population that resides in the state.

Step 2. Calculate a weighted national average by summing the total number of points scored across the states and dividing by 51 (50 states plus D.C.)

Step 3. Applying the same methodology used above for the states, calculate how many standard deviations this national average fell from the maximum state value in each topic area, and use that number to determine which letter grade should be assigned.

Overall grades. The overall grade for the nation was calculated using the same methodology described above for the overall state grades. The overall grade for the nation is a weighted average of the nation’s category-specific grades.

INDICATOR WEIGHTS BY METRIC

Indicator weights are presented as a percentage of the total category.

**ACCESS TO EMERGENCY CARE
30% OF THE OVERALL STATE GRADE**

Access to providers – 25.00% of the category	
Board-certified emergency physicians per 100,000 pop.	3.59
Emergency physicians per 100,000 pop.	3.59
Neurosurgeons per 100,000 pop.	0.89
Orthopedists and hand surgeon specialists per 100,000 pop.	0.89
Plastic surgeons per 100,000 pop.	0.89
ENT specialists per 100,000 pop.	0.89
Registered nurses per 100,000 pop.	7.14
Additional primary care FTEs needed per 100,000 pop.	2.37
Additional mental health FTEs needed per 100,000 pop.	2.37
% of children able to see provider	2.37
Access to treatment centers – 25.00% of the category	
Level I or II trauma centers per 1M pop.	5.00
% of population within 60 minutes of Level I or II trauma center	5.00
Accredited chest pain centers per 1M pop.	5.00
% of population with an unmet need for substance abuse treatment	5.00
Pediatric specialty centers per 1M pop.	5.00
Financial barriers – 25.00% of the category	
Physicians accepting Medicare per 100 beneficiaries	5.00
Medicaid fee levels for office visits as a % of the national average	2.50
% change in Medicaid fees for office visits (2007 to 2012)	2.50
% of adults with no health insurance	2.50
% of adults underinsured	2.50
% of children with no health insurance	2.50
% of children underinsured	2.50
% of adults with Medicaid	5.00
Hospital capacity – 25.00% of the category	
Emergency departments per 1M pop.	3.00
Hospital closures in 2011	5.00
Staffed inpatient beds per 100,000 pop.	5.00
Hospital occupancy rate per 100 staffed beds	3.00
Psychiatric care beds per 100,000 pop.	3.00
Median minutes from ED arrival to ED departure for admitted patients	3.00
State collects data on diversion	3.00
Total*	99.99

**QUALITY AND PATIENT SAFETY ENVIRONMENT
20% OF THE OVERALL STATE GRADE**

State systems – 66.67% of the category	
Funding for quality improvement within the EMS system	6.35
Funded state EMS medical director	6.35
Emergency medicine residents per 1M pop.	3.18
Adverse event reporting required	6.35
% of counties with E-911 capability	6.35
Uniform system for providing pre-arrival instructions	6.35
CDC guidelines are basis for state field triage protocols	6.35
State has or is working on a stroke system of care	3.18
Triage and destination policy in place for stroke patients	3.18
State has or is working on a PCI network or a STEMI system of care	3.18
Triage and destination policy in place for STEMI patients	3.18
Statewide trauma registry	3.18
Triage and destination policy in place for trauma patients	3.18
Prescription drug monitoring program	6.35
Institution – 33.33% of the category	
% of hospitals with computerized practitioner order entry	5.55
% of hospitals with electronic medical records	5.55
% of patients with AMI given PCI within 90 minutes of arrival	3.7
Median time to transfer to another facility for acute coronary intervention	3.7
% of patients with AMI who received aspirin within 24 hours	3.7
% of hospitals collecting data on race/ethnicity and primary language	5.55
% of hospitals having or planning to develop a diversity strategy or plan	5.55
Total*	100.01

*Weights may not total 100 percent due to rounding.

INDICATOR WEIGHTS BY METRIC

Indicator weights are presented as a percentage of the total category.

**MEDICAL LIABILITY ENVIRONMENT
20% OF THE OVERALL STATE GRADE**

Legal atmosphere – 25.00% of the category	
Lawyers per 10,000 pop.	0.00
Lawyers per physician	0.00
Lawyers per emergency physician	0.00
ATRA judicial hellholes (range 2 to -6)	5.00
Malpractice award payments per 100,000 pop.	4.00
Average malpractice award payments	4.00
National Practitioner Databank reports per 1,000 physicians	4.00
Provider apology is inadmissible as evidence	4.00
Patient compensation fund	4.00
Insurance availability – 20.00% of the category	
Number of insurers writing medical liability policies per 1,000 physicians	5.00
Average medical liability insurance premium for primary care physicians	7.50
Average medical liability insurance premium for specialists	7.50
Tort reform – 55.00% of the category	
Presence of pretrial screening panels	4.00
Pretrial screening panel's findings admissible as evidence	2.00
Periodic payments	5.00
Medical liability cap on non-economic damages	14.00
Additional liability protection for EMTALA-mandated emergency care	5.00
Joint and several liability abolished	5.00
Collateral source rule provides for awards to be offset	5.00
State provides for case certification	5.00
Expert witness required to be of the same specialty as the defendant	5.00
Expert witness must be licensed to practice medicine in the state	5.00
Total*	100.00

**PUBLIC HEALTH AND INJURY PREVENTION
15% OF THE OVERALL STATE GRADE**

Traffic safety and drunk driving – 22.22% of the category	
Traffic fatalities per 100,000 pop.	1.85
Bicyclist fatalities per 100,000 cyclists	1.85
Pedestrian fatalities per 100,000 pedestrians	1.85
% of traffic fatalities alcohol related	5.56
Front occupant restraint use (%)	1.85
Helmet use required for all motorcycle riders	1.85
Child safety seat/seat belt legislation	1.85
Distracted driving legislation	2.78
Graduated drivers' license legislation	2.78
Immunization – 16.68% of the category	
% of children immunized, aged 19-35 months	5.56
% of adults aged 65+ who received flu vaccine in the past year	5.56
% of adults aged 65+ who ever received pneumococcal vaccine	5.56
Fatal injury – 16.68% of the category	
Fatal occupational injuries per 1M workers	2.78
Homicides and suicides (non-motor vehicle) per 100,000 pop.	2.78
Unintentional fall-related fatal injuries per 100,000 pop.	2.78
Unintentional fire/burn-related fatal injuries per 100,000 pop.	2.78
Unintentional firearm-related fatal injuries per 100,000 pop.	2.78
Unintentional poisoning-related fatal injuries per 100,000 pop.	2.78
State health and injury prevention efforts – 22.24% of the category	
Total injury prevention funds per 1,000 pop.	2.78
Dedicated child injury prevention funding source	2.78
Dedicated elderly injury prevention funding source	2.78
Dedicated occupational injury prevention funding source	2.78
Gun-purchasing legislation	5.56
Anti-smoking legislation	5.56
Health risk factors – 22.24% of the category	
Infant mortality rate per 1,000 live births	2.78
Binge alcohol drinkers, % of adults	2.78
Current smokers, % of adults	2.78
% of adults with BMI >30	2.78
% of children obese	2.78
Cardiovascular disease disparity ratio	2.78
HIV diagnoses disparity ratio	2.78
Infant mortality disparity ratio	2.78
Total*	100.06

*Weights may not total 100 percent due to rounding.

INDICATOR WEIGHTS BY METRIC

Indicator weights are presented as a percentage of the total category.

DISASTER PREPAREDNESS**15% OF THE OVERALL STATE GRADE**

Financial resources – 13.30% of the category	
Per capita federal disaster preparedness funds	6.65
State budget line item for funds specific to health care surge	6.65
State coordination – 40.00% of the category	
ESF-8 plan shared with all EMS and essential hospital personnel	2.40
Emergency physician input into the state planning process	2.40
Public health and emergency physician input during an ESF-8 response	2.40
Drills, exercises conducted with hospital personnel, equipment, facilities per hospital	2.40
Accredited by the Emergency Management Accreditation Program	2.40
Special needs patients in medical response plan	1.50
Patients on medication for chronic conditions in medical response plan	1.50
Medical response plan for supplying dialysis	1.00
Mental health patients in medical response plan	1.00
Medical response plan for supplying psychotropic medication	0.50
Mutual aid agreements with behavioral health providers	0.50
Long-term care and nursing home facilities must have written disaster plan	1.00
State able to report number of exercises with long-term care or nursing home facilities	1.00
"Just-in-time" training systems in place	6.00
Statewide medical communication system with one layer of redundancy	6.00
Statewide patient tracking system	2.67
Statewide real-time or near real-time syndromic surveillance system	2.67
Real-time surveillance system in place for common ED presentations	2.67

Hospital capacity – 20.00% of the category	
Bed surge capacity per 1M pop.	6.67
ICU beds per 1M pop.	6.67
Burn unit beds per 1M pop.	3.33
Verified burn centers per 1M pop.	3.33
Personnel – 26.70% of the category	
Physicians registered in ESAR-VHP per 1M pop.	3.81
Nurses registered in ESAR-VHP per 1M pop.	3.81
Behavioral health professionals registered in ESAR-VHP per 1M pop.	3.81
State or regional strike teams or medical assistance teams	3.81
Disaster training required for essential hospital, EMS personnel	3.81
Liability protections for health care workers during a disaster	3.81
% of registered nurses that received disaster training	3.81
Total*	99.98

*Weights may not total 100 percent due to rounding.

Glossary of Terms

AMI	Acute myocardial infarction	ESAR-VHP	Emergency System for Advance Registration of Volunteer Health Professionals
ATRA	American Tort Reform Association	ESF-8	Emergency Support Function 8 – Public Health and Medical Services Annex
CDC	Centers for Disease Control and Prevention	FTE	Full-time equivalent
E-911	Enhanced 911	ICU	Intensive care unit
ED	Emergency department	PCI	Percutaneous coronary intervention
EMA	Emergency Management Agency	RN	Registered nurse
EMS	Emergency Medical Services	STEMI	ST-elevation myocardial infarction
EMTALA	Emergency Medical Treatment and Labor Act		
ENTs	Ear, nose, and throat specialists		

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ACCESS TO EMERGENCY CARE

Board-certified emergency physicians per 100,000 population

American Board of Medical Specialties. 2012 ABMS Certificate Statistics. Received via personal correspondence [2013 Mar 13]; American Osteopathic Board of Emergency Medicine. Unpublished data received via personal correspondence [2013 Mar 4].

Emergency physicians; Neurosurgeons; Orthopedists and hand surgeon specialists; Plastic surgeons; and ENT specialists per 100,000 population

AMA PHYSICIAN PROFESSIONAL DATA © 2012 by the American Medical Association. Unpublished data received via personal correspondence [2013 Jan 30].

Emergency physicians include physicians reporting a self-designated subspecialty of emergency medicine, internal medicine/emergency medicine/critical care, internal medicine - emergency medicine, pediatric emergency medicine, pediatrics - emergency medicine, emergency medical services, or emergency medicine/family medicine.

Neurosurgeons include physicians reporting a self-designated subspecialty of neurological surgery or pediatric neurological surgery.

Orthopedists and hand surgeons include physicians reporting a self-designated subspecialty of hand surgery, hand surgery/orthopedic surgery, orthopedic surgery of spine, orthopedic adult reconstructive surgery, orthopedic musculo-oncology, orthopedic pediatric surgery, orthopedic sports medicine, orthopedic surgery, orthopedic surgery - trauma, orthopedics (foot and ankle).

Plastic surgeons include physicians reporting a self-designated subspecialty of plastic surgery, plastic surgery - head and neck, facial plastic surgery, plastic surgery integrated, plastic surgery within the head and neck.

ENTs include physicians reporting a self-designated subspecialty of otolaryngology and pediatric otolaryngology.

Registered nurses per 100,000 population

U.S. Department of Labor, Bureau of Labor Statistics. Occupational Employment Statistics [Internet]. Washington (DC): May 2011 [cited 2012 April 11]. Available from: <http://www.bls.gov/oes/>

Additional primary care FTEs needed per 100,000 population; Additional mental health FTEs needed per 100,000 population

U.S. Department of Health and Human Services, Health Resources and Services Administration. Geospatial Data Warehouse, Health Professional Shortage Area (HPSA) data [Internet]. Washington (DC): U.S. Department of Health and Human Services [cited 2013 Mar 8]. Analysis conducted by Altarum Institute. Available from: <http://datawarehouse.hrsa.gov/HPSADownload.aspx>

Percent of children able to see provider

Child and Adolescent Health Measurement Initiative, Data Resource Center for Child and Adolescent Health. National Survey of Children's Health. NSCH 2011/2012 [Internet]. Portland (OR): Child and Adolescent Health Measurement Initiative; c2012 [cited 2013 Mar 26]. Available from: <http://www.childhealthdata.org/>

Level I or II trauma centers per 1 million population

American Trauma Society. Data from the American Trauma Society's Trauma Information Exchange Program received via personal correspondence [2013 Mar 21].

Includes adult Level I or II trauma centers certified by the American College of Surgeons and/or designated by the state in which it is located. Counts of trauma centers within a state do not include trauma centers designated by that state, but located in a neighboring state.

Percent of population within 60 minutes of a Level I or II trauma center

American Trauma Society. Trauma Access Maps. [Internet] Upper Marlboro (MD). 2010 [cited 2013 Feb 20]. Available from: <http://www.emergencymap.org/Trauma.aspx>.

Includes access to Level I or II trauma centers in neighboring states.

Accredited chest pain centers per 1 million population

Society of Cardiovascular Patient Care. Data on Accredited Chest Pain Centers received via personal correspondence [2013 Apr 25].

Includes centers accredited by the Society for Cardiovascular Patient Care.

Percent of population with an unmet need for substance abuse treatment

Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health. [Internet]. Washington (DC): SAMHSA. 2007 - 2010 [updated 2012 March; cited 2013 Jan 17]. Available from: <http://www.samhsa.gov/data/NSDUH.aspx>

Includes persons who reported that they needed, but did not receive, treatment for alcohol or illegal substance abuse at a treatment facility.

Physicians accepting Medicare per 100 beneficiaries

Centers for Medicare & Medicaid Services. State Report on Medicare Physician/Suppliers, 2009-2011. Unpublished data received via personal correspondence [2013 Mar 1]; Centers for Medicare & Medicaid Services. Medicare & Medicaid Statistical Supplement - 2012 Edition. Table 2.5 - Medicare Enrollment: Hospital Insurance and/or Supplementary Medical Insurance for Total, Fee-for-Service, and Managed Care Enrollees by Area of Residence, as of July 1, 2011 [Internet]. Baltimore (MD); [cited 2013 Mar 14]. Available from <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareMedicaidStatSupp/2012.html>.

Number of physicians includes participating and non-participating physicians/suppliers practicing within the 50 United States and District of Columbia and utilized by Medicare fee-for-service beneficiaries as reflected on the Part B non-institutional claims. Count of Physician/suppliers is based on National Provider Identifier (NPI) reported as the rendering physician/supplier, and may be counted in more than one state, depending on where services were provided.

Number of beneficiaries includes those enrolled in hospital insurance and/or supplementary medical insurance fee-for-service programs.

Medicaid fee levels for office visits as a percent of the national average; Percent change in Medicaid fees for office visits (2007 to 2012)

2012 Medicaid fee levels were recorded directly from individual state websites or, where that was not available, directly from state Medicaid or health department personnel via personal correspondence. Website links to state websites containing Medicaid fee levels can be found on the American Academy of Family Physicians website at <http://www.aafp.org>.

2007 Medicaid fee levels are from the American Academy of Family Physicians (<http://www.aafp.org>).

In order to maintain comparability with the 2009 Report Card's calculations, the rates used for both analyses were 99203 (new patient, low complexity); 99204 (new patient, moderate complexity); 99205 (new patient, high complexity); 99213 (established patient, low complexity); 99214 (established patient, moderate complexity). The five primary codes were weighted based on their relative contribution to Medicaid usage, as identified by Zuckerman et al (2004): 99203 (6.6%); 99204 (5.7%); 99205 (3.2%); 99213 (61.4%); 99214 (23.1%). (Zuckerman S, McFeeters J, Cunningham P, Nichols L. Changes in Medicaid Physician Fees, 1998-2003: Implications for physician participation. Health Affairs [online] June 2004.) Three states that do not have Medicaid participants enrolled in fee-for-service were excluded from the analysis: Idaho, Tennessee, and South Carolina.

Percent of adults with no health insurance; Percent of children with no health insurance; Percent of adults with Medicaid

U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement. Current Population Survey Table Creator [internet]. Washington (DC): [updated 2011; cited 2013 Feb 20]. Available from: <http://www.census.gov/cps/data/cpstablecreator.html>

Percent of adults underinsured

Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, [2011].

Includes adults who had health insurance, but reported that the cost of health care prevented them from seeking care when needed at least once in the past year.

Percent of children underinsured

Child and Adolescent Health Measurement Initiative, Data Resource Center for Child and Adolescent Health. National Survey of Children's Health. NSCH 2011/2012 [Internet]. Portland (OR): Child and Adolescent Health Measurement Initiative; c2012 [cited 2013 Mar 26]. Available from: <http://www.childhealthdata.org/>

Includes children whose parents reported that the child had health insurance but that the out-of-pocket costs for health care were never or sometimes reasonable.

Pediatric specialty centers per 1 million population; Emergency departments per 1 million population; Hospital closures in 2011; Staffed inpatient beds per 100,000 population; Hospital occupancy rate per 100 staffed beds; and Psychiatric care beds per 100,000 population

American Hospital Association, AHA Annual Survey, FY 2011. Unpublished estimates acquired from Health Forum, LLC.

Pediatric specialty centers include hospitals with more than one neonatal intensive care unit or pediatric intensive care unit. Emergency departments include those that are hospital-owned freestanding or hospital-based EDs. Hospital occupancy rate is an estimate of the percentage of beds occupied on an average day.

Median time from ED arrival to ED departure for admitted patients (minutes)

Centers for Medicare & Medicaid Services. Medicare Hospital Compare Quality of Care [Internet]. Baltimore (MD); [updated 2013 Feb 1; cited 2013 Feb 21]. Available from <http://www.medicare.gov/hospitalcompare>.

Estimate is based on emergency department through-put, average median time per 1000 discharges.

State collects data on hospital diversion

American College of Emergency Physicians, State-by-State Survey of EMS Practices and Policies, 2013.

QUALITY & PATIENT SAFETY ENVIRONMENT**Funding for quality improvement within the EMS system; Funded state EMS medical director; Uniform system for providing pre-arrival instructions; CDC guidelines used as basis for state field triage protocols; State has or is working on a stroke system of care; Triage and destination policy in place for stroke patients; State has or is working on a PCI network or a STEMI system of care; Triage and destination policy in place for STEMI patients; Statewide trauma registry; Triage and destination policy in place for trauma patients**

American College of Emergency Physicians, State-by-State Survey of EMS Practices and Policies, 2013.

All indicators were dichotomous (yes/no) with the exception of "CDC guidelines used as basis for state field triage protocols." States could receive a maximum of 2 points based on the following responses: states using 2011 or 2006 CDC guidelines received 2 points, those not using CDC guidelines received 1 point, and those that did not have state field triage protocols did not receive any credit for this indicator.

Emergency medicine residents per 1 million population

Accreditation Council for Graduate Medical Education. List of Accredited Programs (within a specialty) with Approved and Filled Positions (Academic Year 2012-2013). Unpublished data received via personal correspondence [2013 Feb 13]; Accreditation Council for Graduate Medical Education. List of programs within a particular

specialty for current academic year and those newly accredited programs with future effective dates (year ending June 30th, 2013). Unpublished data received via personal correspondence [2013 Feb 13].

American Osteopathic Association. Emergency Residents by State 2012. Unpublished data received via personal correspondence [2013 March 12].

Adverse event reporting requirement

National Academy for State Health Policy. Adverse Event Reporting Tools by State [Internet]. Washington (DC): National Academy for State Health Policy; c2013 [cited 2013 May 2]. Available from: <http://www.nashp.org/pst-state-list/>.

Oregon has a voluntary adverse event reporting system. Illinois enacted legislation in 2005, but has not implemented a reporting system, and so did not receive credit.

Percent of counties with Enhanced-911 capability

National Emergency Number Association, DDTI. Wireless Deployment Reports & Maps: Report 2. Percentage of counties that are E9-1-1 Capable [Internet]. Alexandria (VA): National Emergency Number Association. c2008 [cited 2012 Apr 10]. Available at: <http://nena.ddti.net/NationalReport.aspx>

Prescription drug monitoring program (PDMP)

Alliance of States with Prescription Monitoring Programs. Data received via personal correspondence [2012 Nov 11].

States could receive a total of 4 possible points: 2 points for having an operational PDMP; 1 point for having enacted legislation, but non-operational PDMP; an additional point was given for collecting data in real-time and for monitoring drug schedules II, III, IV, and V.

Percent of hospitals with computerized practitioner order entry;**Percent of hospitals with electronic medical records**

HIMSS Analytics™ Database (Derived from the Dorenfest IHDS+ Database™, 2012.

Percent of patients with acute myocardial infarction given percutaneous coronary intervention within 90 minutes of arrival; Median time to transfer to another facility for acute coronary intervention; Percent of patients with acute myocardial infarction who received aspirin within 24 hours

Centers for Medicare & Medicaid Services. Medicare Hospital Compare Quality of Care [Internet]. Baltimore (MD): Centers for Medicare & Medicaid Services; [updated 2013 Feb 1; cited 2013 Feb 12]. Available from: <http://www.medicare.gov/hospitalcompare>.

Percent of hospitals collecting data on race/ethnicity and primary language; Percent of hospitals having or planning to develop a diversity strategy or plan

American Hospital Association, AHA Annual Survey, FY 2011. Unpublished estimates acquired from Health Forum, LLC.

MEDICAL LIABILITY ENVIRONMENT**Lawyers per 10,000 population; Lawyers per physician; Lawyers per emergency physician**

Number of lawyers was acquired from U.S. Department of Labor, Bureau of Labor Statistics. Occupational Employment Statistics, May 2011. Create customized tables [Internet]. Washington (DC); US Department of Labor [cited 2012 Jun 19]. Available from: <http://www.bls.gov/oes/>.

Number of physicians and emergency physicians are from AMA PHYSICIAN PROFESSIONAL DATA © 2012 by the American Medical Association. Unpublished data received via personal correspondence [2013 Jan 30].

ATRA judicial hellholes (Range 2 to -6)

American Tort Reform Association. Judicial Hellholes 2012-2013 [Internet]. Washington (DC); American Tort Reform Association, c2012 [cited 2013 Feb 21]. Available from: http://www.judicialhellholes.org/wp-content/uploads/2012/12/ATRA_JH12_04.pdf

ATRA assigns both positive and negative designations to specific counties and other jurisdictions within the states. 1 point was given for having a designated "point of light," 0 points for not being mentioned, -1 point for having a "dishonorable mention," -2 points for having a jurisdiction on the "watch list," and -3 points for the presence of a "judicial hellhole." A negative score therefore represents

problem areas. Several states appear in multiple categories. Scores assigned to the states ranged from -6 to +2.

Malpractice award payments per 100,000 population; Average malpractice award payment; National Practitioner Databank reports per 1,000 physicians

National Practitioner Data Bank Public Use Data File, [31 DEC 2012], U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Division of Practitioner Data Banks.

Malpractice award payments include the number of payments made by insurer, self-insured organization, and state compensation fund as the primary insurer. The average malpractice award payment was calculated by summing all of the malpractice payments and dividing by the number of payments made by an insurer, self-insured organization, and the state compensation fund as primary insurer. The number of Databank reports includes those for Physicians (MD), Physician Intern/Resident (MD), Osteopathic Physician (DO), and Osteopathic Physician Intern/Resident (DO).

Apology inadmissibility laws

American Medical Association. Apology Inadmissibility Laws: Summary of State Legislation [Internet]. Chicago (IL): American Medical Association; c2012 [cited 21 February 2013]. Available from: <http://www.ama-assn.org/resources/doc/arc/apology-inadmissibility-state-laws-charts.pdf>

Patient compensation fund

National Conference of State Legislatures. Medical Liability/Medical Malpractice Laws [Internet]. Washington (DC); National Conference of State Legislatures, c2013 [updated 2011 Aug 15; cited 2012 Apr 13]. Available at: <http://www.ncsl.org/issues-research/banking/medical-liability-medical-malpractice-laws.aspx>; American Tort Reform Association. State and Federal Civil Justice Reforms [Internet]. Washington (DC): American Tort Reform Association; c2011 [cited 2012 Apr 13]. Available from: <http://www.atra.org/legislation/states>.

Although Colorado, Florida, Oregon, and Wyoming have passed legislation to create a patient compensation fund, these states did not receive credit because provisions have not been implemented.

Number of insurers writing medical liability policies per 1,000 physicians

National Association of Insurance Commissioners. Countrywide Survey of Medical Malpractice Insurance 1991-2011 [Internet]. Washington (DC): National Association of Insurance Commissioners, c2012 [cited 21 Feb 2013]. Available from http://www.naic.org/documents/research_stats_medical_malpractice.pdf.

Average medical liability insurance premium for primary care physicians; Average medical liability insurance premium for specialists

Medical Liability Monitor. Rate Survey Issue. October 2012, 37 (10): 48pp.

Amounts presented are unweighted averages of rates for regions within states and companies providing rates, as listed in the 2012 Medical Liability Monitor. Primary care physicians are represented by rates for Internal Medicine, and specialists are represented by rates for OB-GYN and General Surgery.

Presence of pretrial screening panels, Findings admissible as evidence; Periodic payments; Medical liability cap on non-economic damages; Joint and several liability abolished; Collateral source rule reform enacted and provides for awards to be offset

American Medical Association. State Laws Chart 1: Liability Reforms [Internet]. Chicago (IL): American Medical Association; c2012 [cited 21 February 2013]. Available from: <http://www.ama-assn.org/resources/doc/arc/state-laws-chart-1-jan-2012.pdf>

For pretrial screening panels, States were awarded one point for having a mandatory pretrial screening panel and one point for a voluntary pretrial screening panels. If a State had either voluntary or mandatory pretrial screening panels, additional credit was given if the findings of the panel are admissible as evidence. In Maine and Connecticut, findings are only admissible as evidence if the decision of the panel is unanimous; as such these states did not receive credit for this indicator.

For periodic payments, States received 2 points if periodic payments were required by the state; and 1 point if required upon the request or

agreement of one or both parties or at the discretion of the court or the judge. Connecticut, Minnesota, and Pennsylvania did not receive credit for having periodic payments, because all parties must be in agreement for the option to be exercised.

For medical liability caps on non-economic damages, states were categorized based on the size of the cap. From best to worst, the categories were: a \$250,000 cap; a cap greater than \$250,000 to \$350,000; greater than \$350,000 to \$500,000; greater than \$500,000; and no cap.

For joint and several liability reform, States received 2 points if joint and several liability were fully abolishment and partial credit if only partially abolished.

States were scored on two measures related to collateral source rule reform: (1) whether such reforms had been enacted and (2) whether the state requires awards to be offset by collateral sources.

Additional liability protections for EMTALA-mandated emergency care

American College of Emergency Physicians, "Special Liability Protection for Emergency Care Providers State Statutory Language." Unpublished.

State provides for case certification; Expert witness required to be of the same specialty as the defendant; Expert witness must be licensed to practice medicine in the state

American Medical Association. State Laws Chart 2: Liability Reforms [Internet]. Chicago (IL): American Medical Association; c2012 [cited 21 February 2013]. Available from: <http://www.ama-assn.org/resources/doc/arc/state-laws-chart-2-jan-2012.pdf>

Case certification includes affidavits/certificates of merit or other certification by an expert witness that the case has merit.

For expert witness laws, States were given credit for provisions requiring expert witness to be of the same specialty as the defendant. Pennsylvania did not get credit for requiring expert witnesses to be of the same specialty as the defendant because a court may waive this requirement under special circumstances. States were given credit for provisions requiring that expert witness must be licensed to practice medicine in the State.

PUBLIC HEALTH & INJURY PREVENTION

Percent of traffic fatalities alcohol related

National Highway Traffic Safety Administration, National Center for Statistics and Analysis. Traffic Safety Facts 2011 Data - Alcohol-Impaired Driving. DOT HS 811 700 [Internet]. Washington (DC): National Highway Traffic Safety Administration; 2012 [cited 2013 Mar 22]. Available from: <http://www.nrd.nhtsa.dot.gov/Pubs/811700.pdf>.

This percentage includes traffic fatalities where the Blood Alcohol Content (BAC) of the driver was .01+ g/dL.

Traffic fatalities (drivers/passengers) per 100,000 population

National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS) Encyclopedia, FARS Data Tables [Internet]. Washington: National Highway Traffic Safety Administration; 2010 [cited 2013 Jan 23]. Available from: <http://www-fars.nhtsa.dot.gov/>.

Includes number of fatalities occurring among vehicle occupants (drivers and passengers).

Bicyclist fatalities per 100,000 daily cyclists; Pedestrian fatalities per 100,000 daily pedestrians

Alliance for Biking & Walking, Bicycling and Walking in the United States 2012 Benchmarking Report [Internet]. Washington (DC): Alliance for Biking & Walking, c2012 [cited 2013 Jan 23]. Available from: http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012_benchmarking_report/.

Rates were calculated using Fatality Analysis Reporting System (FARS) 2007-2009 data for fatalities and American Community Survey (ACS) 2007-2009 data for population estimates, using 3-year averages. The pedestrian fatality rate was calculated by dividing the average number pedestrian fatalities by the average population count (adjusting for the proportion of the population walking to work). The bicyclist fatality rate was calculated by dividing the average number bicycle fatalities by the 3-year average population count (adjusting for the proportion of the population biking to work).

Front occupant restraint use (%)

U.S. Department of Transportation, National Highway Traffic Safety Administration. Traffic Safety Facts: Seat Belt Use in 2011—Use Rates in the States and Territories [Internet]. Washington (DC): National Highway Traffic Safety Administration; 2012 [cited 2013 Jan 22]. Available from: <http://www-nrd.nhtsa.dot.gov/Pubs/811651.pdf>.

Includes front occupants using a seat belt at the time of the survey.

Helmet use required for all motorcycle riders

Insurance Institute for Highway Safety, Highway Loss Data Institute. Current US motorcycle and bicycle helmet laws [Internet]. Arlington (VA): Insurance Institute for Highway Safety; c1996-2013 [updated 2013 Jan; cited 2013 Jan 21]. Available from: <http://www.iihs.org/laws/HelmetUseCurrent.aspx>; National Conference of State Legislatures. "NCSL Transportation Reviews: Motorcycle Safety." [online] January 2012. <http://www.ncsl.org/documents/transportation/Motorcyclesafety2012.pdf>, accessed 04/10/12.

Data for Puerto Rico are from the National Conference of State Legislatures; all other data are from the Insurance Institute for Highway Safety.

Child safety seat and seat belt legislation (score out of possible 10 points)

Insurance Institute for Highway Safety, Highway Loss Data Institute. Safety belt and child restraint laws [Internet]. Arlington (VA): Insurance Institute for Highway Safety; c1996-2013 [updated 2013 Jan; cited 2013 Jan 21]. Available from: <http://www.iihs.org/laws/safetybeltuse.aspx>.

States received 2 points for having an adult seat belt law with primary enforcement of the law; 1 point for covering all ages and all seats; and 1 point for having any fine or 2 points for having a fine of at least \$25 and loss of at least one point on driver's license. Up to an additional 5 points were awarded for each year of age over age 3 children are required to use a restraint/booster seat. A point was deducted for secondary enforcement of child safety seat laws.

Distracted driving legislation (score out of possible 4 points)

Insurance Institute for Highway Safety, Highway Loss Data Institute. Cellphone and texting laws [Internet]. Arlington (VA): Insurance Institute for Highway Safety; c1996-2013 [updated 2013 Jan; cited 2013 Jan 21]. Available from: <http://www.iihs.org/laws/cellphonelaws.aspx>.

State received 1 point for each of the following: Ban on handheld cell phone use for all drivers; Primary enforcement of cellphone use ban; Ban on texting while driving for all drivers; Primary enforcement of texting ban.

Graduated drivers licenses legislation (score out of a possible 5 points)

Insurance Institute for Highway Safety, Highway Loss Data Institute. Young driver licensing systems in the U.S. [Internet]. Arlington (VA): Insurance Institute for Highway Safety; c1996-2013 [updated 2012 Nov; cited 2013 Jan 21]. Available from: <http://www.iihs.org/laws/GraduatedLicenseCompare.aspx>.

State received 1 point for each of the following: Minimum permit age of 16; Minimum intermediate license age of 17; Minimum of 65 supervised practice hours; Ban on all teen passengers during intermediate license stage; Night driving restrictions starting at 8pm during intermediate license stage.

Percent of children immunized, aged 19-35 months

Centers for Disease Control and Prevention, National Immunization Program. National Immunization Survey, Jan - Dec 2011 [Internet]. Atlanta (GA): Centers for Disease Control and Prevention; [updated 2012 September; cited 2013 Jan 21]. Available from: <http://www.cdc.gov/vaccines/stats-surv/imz-coverage.htm#nis>.

Includes children receiving the 4:3:1:3:3:1 series of vaccinations.

Percent of adults aged 65+ who received flu vaccine in the last 12 months; Percent of adults aged 65+ who ever received pneumococcal vaccine; Percent of adults with BMI > 30; Current smokers, percent of adults; Binge alcohol drinkers, percent of adults

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Behavioral Risk Factor Surveillance System, 2011: Prevalence and Trends Data [Internet]. Atlanta (GA): Centers for Disease Control and Prevention; [updated unknown; cited 2013 Jan 21]. Available from: <http://apps.nccd.cdc.gov/brfss/>

Fatal occupational injuries per 1 million workers

U.S. Department of Labor, Bureau of Labor Statistics. Economic News Release. Table 5. Fatal occupational injuries by state and event or exposure, 2010-2011 [Internet]. Washington (DC): US Department of Labor; [updated 2012 Sep 20; cited 2013 Jan 21]. Available from: <http://www.bls.gov/news.release/cfoi.t05.htm>

Homicides and suicides (non-motor vehicle); Unintentional fall-related fatal injuries; Unintentional fire/burn-related fatal injuries; Unintentional firearm-related fatal injuries; Unintentional poisoning-related fatal injuries per 100,000 population

Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File 1999-2010. CDC WONDER Online Database, compiled from Compressed Mortality File 1999-2010 Series 20 No. 2P, 2013 [Internet]. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Health Statistics; 2013 [cited 2013 Feb 25]. Available from: <http://wonder.cdc.gov/cmfi-icd10.html>.

Rates of homicides and suicide, unintentional fall-related deaths, and unintentional poisoning-related deaths are from 2010. Estimates presented for poisoning-related deaths for D.C. may be unreliable and should be interpreted with caution. Unintentional fire/burn-related deaths are from 2008-2010, and estimates for North Dakota, Vermont, and Wyoming may be unreliable and should be interpreted with caution. Unintentional firearm-related deaths are from 2003-2010, and estimates for Alaska, Maine, Massachusetts, New Hampshire, and North Dakota should be interpreted with caution as they may be unreliable.

Total injury prevention funds per 1,000 population; Dedicated funding source identified for childhood injury prevention; Dedicated funding source identified for elderly injury prevention; Dedicated funding source identified for occupational injury prevention

Safe States Alliance. (2013) State of the States: 2011 Survey. [Data file]. Retrieved from the Safe States Alliance, Atlanta, GA.

Gun-purchasing legislation (score out of 8 possible points)

Brady Campaign. Brady Campaign 2011 State Scorecards [Internet]. Washington (DC); Brady Campaign; 2012 [cited 2012 February]. Available from: <http://www.bradycampaign.org/stategunlaws/>; U.S. Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives. ATF Publication 5300.5 - State Laws and Published Ordinances – Firearms, 2010 – 2011 – 31st Edition [Internet]. Washington (DC); Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives [cited 2013 Jan 21]. Available from: <http://www.atf.gov/publications/firearms/state-laws/31st-edition/index.html>.

Data for DC and Puerto Rico are from ATF, 2011; all other state data are from the Brady Campaign, 2011

One point was awarded for each of the following indicators (partial credit was given): Firearm owners are required to report all lost or stolen guns to law enforcement; Background checks are required on all gun sales; Safety training and/or testing required to receive a permit; State requires locking devices be sold with guns; Gun owners are held accountable for leaving guns accessible to kids; State participation in the NICS

Anti-smoking legislation (score out of a possible 3 points)

Henry J. Kaiser Family Foundation, State Smoking Restrictions for Worksites, Restaurants, and Bars, 2012 [Internet]. Data derived from the State Tobacco Activities Tracking and Evaluation (STATE) System, Centers for Disease Control and Prevention, 2012. Menlo Park (CA): Kaiser Family Foundation; [cited 2012 July 19]. Available from: <http://www.statehealthfacts.org/>; Laws of Puerto Rico Annotated, Smoking Regulations in Public and Private Areas, 24 L.P.R.A. § 892 (2009).

States received 1 point each for banning smoking in all restaurants, private worksites, and all bars.

Infant mortality rate per 1,000 live births

Murphy SL, Kochanek KD. Deaths: Final data for 2010. National vital statistics reports; vol 61 no 4 [Internet]. Hyattsville (MD): National Center for Health Statistics; 2012 [cited 2013 Apr 25]. Forthcoming. Tables available from: <http://www.cdc.gov/>

Percentage of children that are obese (95th percentile or above)

Data Resource Center for Child and Adolescent Health, National Survey of Children's Health 2011-2012 [Internet]. Portland (OR): c2013 [cited 2013 Apr 24]. Available from: <http://www.childhealthdata.org>.

Cardiovascular disease disparity ratio

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Behavioral Risk Factor Surveillance System, 2009-2011 [Internet]. Atlanta (GA): Centers for Disease Control and Prevention; [cited 2013 03 04]. Analysis conducted by Altarum Institute.

Disparity ratio was calculated by first creating estimates of the percent of the population having ever been told by a health professional that they have cardiovascular disease for each race/ethnicity, and then creating a ratio of the highest prevalence of cardiovascular disease across races/ethnicities to the lowest prevalence. Prevalence estimates with a relative standard error of >30% or based on 20 or fewer cases were considered unreliable and were not used. A ratio of 1.0 indicates equal rates; the greater the value over 1.0 the greater the racial/ethnic disparity in that state.

HIV diagnoses disparity ratio

Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) Atlas [Internet]. Atlanta (GA): Centers for Disease Control and Prevention [cited 2013 Jan 10]. Available from: <http://gis.cdc.gov/GRASP/NCHHSTPAtlas/main.html>. Analysis conducted by Altarum Institute.

HIV diagnosis rates were calculated by summing all reported cases from 2007-2010 and dividing by the Census population counts for each race; rates with a relative standard error of >30% or based on fewer than 20 cases were considered unreliable and were not used. Disparity ratios were calculated by dividing the highest HIV diagnosis rate among each race by the lowest HIV diagnosis rate of each race in the state. A ratio of 1.0 would indicate equal rates; the greater the value over 1.0 the greater the racial/ethnic disparity in that state.

Note: Data on diagnoses of HIV infection should be interpreted with caution. HIV surveillance reports may not be representative of all persons infected with HIV because not all infected persons have been tested and results of anonymous testing are not reported. The completeness of reporting of HIV infection is estimated at more than 80%.

Infant mortality disparity ratio

Mathews, TJ & MacDorman, MF. Infant Mortality Statistics from the 2009 Period Linked Birth/Infant Death Data Set. National Vital Statistics Reports; vol. 61 no 8 [Internet]. Hyattsville (MD): National Center for Health Statistics; 2011 [cited 2013 Jan 23]. Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_08.pdf.

The infant mortality disparity ratio was calculated by dividing the highest infant mortality rate among each race/ethnicity by the lowest infant mortality rate among each race/ethnicity. A ratio of 1.0 would indicate equal rates; the greater the value over 1.0 the greater the racial/ethnic disparity in that state.

DISASTER PREPAREDNESS**Per capita federal disaster preparedness funds**

Department of Homeland Security. FY2012 Preparedness Grants Overview [Internet]. Washington (DC): Federal Emergency Management Agency, 2012 [cited 2013 March 7]. Available from: http://www.fema.gov/pdf/government/grant/2012/fy12_overview.pdf; Levi, J, Segal, LM, St. Laurent, R., & Lang, A. Investing in America's Health: A State-by-State Look at Public Health Funding and Key Health Facts [Internet]. Washington (DC): Trust for America's Health, 2013 [cited 2013 May 14]. Available from <http://healthyamericans.org/assets/files/TFAH2013InvstgAmrcsHlth05%20FINAL.pdf>

Includes ASPR Hospital Preparedness Program funding; CDC funding for Public Health Preparedness and Emergency Response; DHS funding for the State Homeland Security Grant Program, the Urban Areas Security Initiative, and Emergency Management Performance Grants Program).

State budget line item for funds specific to health care surge; ESF-8 plan shared with all EMS and essential hospital personnel; Emergency physician input into the state planning process; Public health and emergency physician input during an ESF-8 response; Special needs patients in medical response plan; Patients on medication for chronic conditions in medical response plan; Medical response plan for supplying dialysis; Mental health patients in medical response plan; Medical response plan for supplying psychotropic medication; Mutual aid agreements with behavioral health providers; Long-term care and nursing home facilities must have written disaster plan; State able to report number of exercises with long-term care or nursing home facilities; "Just-in-time" training systems in place; Statewide medical communication system with one layer of redundancy; Statewide patient tracking system; Statewide real-time or near real-time syndromic surveillance system; Real-time surveillance system in place for common ED presentations; State or regional strike teams or medical assistance teams; Disaster training required for essential hospital and EMS personnel

American College of Emergency Physicians, State-by-State Survey of Disaster Preparedness Practices and Policies, 2013.

Indicators were treated as dichotomous (yes/no) with the following exceptions:

-ESF-8 plan shared with all EMS and essential hospital personnel: states received a maximum of 2 points – 1 point each for sharing plan with all EMS personnel and all hospital personnel.

-Public health and emergency physician input during an ESF-8 response: states received a maximum of 2 points – 1 for incorporating input from public health physicians and 1 for incorporating input from emergency physicians.

-Mutual aid agreements with behavioral health providers: states received a maximum of 2 points – 2 for having statewide agreements in place with any entities, 1 for having local-level agreements in place with any entities, and 0 for having neither.

-Just in time training systems in place: states received a maximum of 2 points for having statewide systems in place, 1 point for having either county- or city-wide systems or systems across coalitions, and no points for having no such system.

-Real-time surveillance system in place for common ED presentations: states received a maximum of 2 points for having a statewide system, 1 point for having a system in metro areas only, and 0 points for having no system.

-Disaster training required for essential hospital and EMS personnel: states received a maximum of 2 points – 1 point each for requiring training in disaster management and response to biological and chemical terrorism for the two groups of professionals.

Liability protections for health care workers (4 points possible)

Uniform Law Commission. Legislation [Internet]. Chicago (IL): Uniform Law Commission, c2013 [cited 5 May 2013]. <http://www.uniformlaws.org/Legislation.aspx>; American College of Emergency Physicians. State-by-State Survey of Disaster Preparedness Practices and Policies, 2013.

States passing Uniform Emergency Volunteer Health Protection Act (UEVHPA) model legislation Alternative A received all 4 points; states passing UEVHPA Alternative B received 3 points with possibility to earn 4 if separate legislation provides protections for entities hosting or deploying health care workers during an event (survey). Non-UEVHPA states received one point each for having: Immunity from civil liability for volunteers providing health services; Protections for entities that send or host volunteer health care workers; Liability protections tied to a declared public health emergency; "Good Samaritan" laws.

Number of drills, exercises conducted with hospital personnel, equipment, facilities per hospital; Bed surge capacity per 1 million population

Office of the Assistant Secretary for Preparedness and Response. Unpublished data from FY2012 year-end reporting received via personal correspondence [2013 Mar 15].

Includes drills, table top exercises, functional exercises, and full scale exercises that included hospital personnel, equipment, or facilities presented as a rate per the number of hospitals in the state (AHA Annual Survey, FY 2011).

Bed surge capacity is the number of beds statewide, above the current daily staffed bed capacity that the state is capable or surging beyond within 24 hours after a disaster event.

Accredited by the Emergency Management Accreditation Program

Emergency Management Accreditation Program. Accredited Programs [Internet]. Lexington (KY): Council of State Governments [Updated 2012 Oct; cited 2013 Mar 7]. Available from http://www.emaponline.org/index.php?option=com_content&view=article&id=175&Itemid=139

Physicians registered in ESAR-VHP per 1million population; Nurses registered in ESAR-VHP per 1million population; Behavioral health professionals registered in ESAR-VHP per 1million population;

Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) data submitted September 30, 2012. Unpublished data received via personal correspondence [2013 Feb 19].

Registered physicians include: Allopathic Physicians (M.D.); Osteopathic Physicians (D.O.); Physician - Unknown if M.D. or D.O.

Nurses include: Advanced Practice Nurse; Advanced Practice RN; Certified Nurse Anesthetists; Certified Nurse Midwives. Clinical Nurse Specialists; Licensed Practical Nurses and Licensed Vocational Nurses; Nurse Practitioners; Psychiatric/Mental Health Nurse; Public Health Nurse; Registered Nurses.

Behavioral health professionals include: Mental Health Counselors; Mental Health Practitioner; Professional Counselors; Psychologist; Social Worker; Social Worker (non-clinical); Social Worker, Medical and Public Health; Social Worker, Mental Health and Substance Abuse; Clinical Social Workers, Licensed Master Social Worker (no privileges); Licensed Professional Counselors; Licensed Social Worker; Licensed Social Worker (LSW) (LISW) ; Marriage and Family Therapists; Substance Abuse and Behavioral Disorder Counselor, Substance Abuse and Behavioral Health Counselor; Chemical Dependency Professional; Licensed Alcohol and Drug Counselor; Certified Substance Abuse Counselor.

ICU beds per 1 million population

American Hospital Association. AHA Annual Survey, FY 2011. Unpublished estimates acquired from Health Forum, LLC.

Includes medical/surgical, cardiac, neonatal, pediatric, and other ICU beds.

Burn unit beds per 1 million population

American Burn Association. Burn Care Facilities, United States [Internet]. Chicago (IL): American Burn Association [updated 2013 Feb 6; cited 2013 Mar 7]. Available from: <http://www.ameriburn.org/BCRDPublic.pdf>

Verified burn centers per 1 million population

American Burn Association. Burn Center Verification [Internet]. Chicago (IL): American Burn Association [cited 2013 Mar 7]. http://www.ameriburn.org/verification_verifiedcenters.php

Percent of registered nurses that received disaster training

U.S. Department of Health and Human Services, Health Resources and Services Administration. National Sample Survey of Registered Nurses 2008. [Public use data files available online] <http://datawarehouse.hrsa.gov/nursingsurvey.aspx>, accessed 04/13/12. Analysis conducted by Altarum Institute.

Includes training for biological attack, chemical attack, nuclear radiation attack, natural disaster, and/or outbreak of infectious disease.