



PREPARED TO CARE

The 24/7
Standby Role
of America's
Hospitals



American Hospital
Association®



PREPARED TO CARE EXECUTIVE SUMMARY

America's hospitals are vital to meeting the health care needs of the communities they serve by providing a wide range of acute-care and diagnostic services, supporting public health needs, and offering myriad other community services to promote the health and well-being of the community. While many of these services also are provided by other health care providers, three things make the role of the hospital unique:

- 24/7 ACCESS TO CARE:** The provision of health care services, including specialized resources, 24 hours a day, seven days a week (24/7), 365 days a year;
- THE SAFETY NET ROLE:** Caring for all patients who seek emergency care, regardless of ability to pay; and
- DISASTER READINESS AND RESPONSE:** Ensuring that staff and facilities are

prepared to care for victims of large-scale accidents, natural disasters, epidemics and terrorist actions.

These critical roles – collectively known as the “standby” role – while often taken for granted, represent an essential component of our nation’s health and public safety infrastructure.

Despite its importance to communities and the nation as a whole, the standby role is not explicitly funded. Until a patient arrives with an emergency need, there is no payment for the staff and facility to be at the ready. The terrorist attacks of September 11, 2001, the aftermath of Hurricane Katrina in 2005, recent mass shootings, and the threat of pandemic flu have heightened awareness of the need for disaster readiness, but federal support is still limited for hospitals. Without explicit funding, the standby role is built into the cost structure of hospitals and supported

by revenues from direct patient care – a situation that does not exist for any other type of provider.

Hospitals today face increasing challenges in maintaining this role, such as increasing demand, staffing and space constraints, greater expectations for preparedness, the erosion of financial support from government payers, and the loss of patients to other settings that do not have the added costs of fulfilling the standby role.

This report explores the standby role and its critical importance to the health care system; analyzes the nature of demand and the basic and specialized resources required to meet it; outlines the capacity and financing pressures hospitals face in maintaining the standby role; and frames critical economic and policy questions that must be addressed to ensure future hospital standby capacity can meet the growing health and public safety challenges.

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KEY FINDINGS

24/7 ACCESS TO CARE

Americans rely heavily on the 24-hour access to care provided by hospital emergency departments (EDs), and this need is growing.

- ED visits have increased by 22 percent over the past decade.
- In 2011, there were more than 129 million ED visits.
- 44 percent of hospital care begins in the ED.
- The majority of ED patients require immediate care.
- More than half of ED care occurs outside of normal business hours.

The many different and unpredictable needs of emergency care patients require hospitals to maintain an extensive array of resources.

- Patient visit volume can vary by well over 100 percent, hour to hour and day to day.
- Maintaining capacity to provide emergency care 24/7 requires staffing in multiple areas, including the ED, laboratory, radiology, pharmacy, surgical services, general and intensive care units, and labor and delivery, plus on-call physicians.
- A large urban hospital ED can expect to see – and must be prepared to treat – more than 1,600 *unique patient conditions*.
- Small and rural hospitals are equipped to treat many conditions and, when necessary, stabilize more severely ill and injured patients and transfer them to regional referral centers.

THE SAFETY NET ROLE

Often lacking a “medical home,” Medicaid beneficiaries and people without health insurance coverage – together, more than 118 million individuals – disproportionately look to the hospital ED as their access point for care.

- One in six Americans lacks health care coverage. Seven of 10 uninsured individuals of working age are employed. Of the nearly 49 million uninsured, nearly 8 million are children.

- Medicaid now covers over 69 million people, including 33 million children.
- From 2004 to 2009, visits to the ED by Medicaid and uninsured patients grew by 42 percent, compared to just 23 percent overall.
- 45 percent of ED patients have Medicaid or are uninsured compared to only 17 percent for physician offices.
- Hospitals provided \$39.3 billion in uncompensated care in 2010 as well as many other community benefits.

DISASTER READINESS AND RESPONSE

September 11 and other terrorist threats, catastrophic hurricanes, multiple devastating tornados and the threat of pandemic flu have increased the national assessment of the likelihood of disaster and raised the bar for disaster preparedness.

- In times of disaster, communities look to hospitals not only to mobilize the resources to care for the ill and injured but also to provide food and shelter, and coordinate relief and recovery efforts.

- To be at the ready, hospitals need:
 - Comprehensive community disaster plans for a wide array of potential events, each with diverse action requirements.
 - Back-up generators and communications systems, personal protective gear, decontamination units, stockpiled medical supplies, training, drills and surveillance systems in addition to the surge capacity to meet the needs of large numbers of ill and injured patients.

CHALLENGES

While patient demand for standby services is increasing, capacity is constrained.

- As ED visits rise, the number of hospitals providing emergency care has declined.
- A 2010 AHA survey found half of EDs report operating “at” or “over” capacity.
- Hospitals also face a projected need for nearly 900,000 additional caregivers and other staff between now and 2020.

The standby role is not explicitly funded; instead it is built into the overall cost structure of the hospitals that perform this role and supported by revenues received from providing direct patient care. However, the ability to generate sufficient funds from patient care to support this role is increasingly at risk.

- Government payers do not cover the cost of care for Medicare and Medicaid beneficiaries. In 2010, the shortfall from these programs approached \$28 billion. And Medicare and Medicaid enrollment is projected to grow from 118 million in 2011 to more than 156 million in 2020 with the implementation of the *Patient Protection and Affordable Care Act of 2010 (ACA)*.

- Hospitals’ uncompensated care continues to rise, growing 82 percent from 2000 to 2010.
- Despite the unique role played by hospitals and its associated costs, policymakers have proposed cutting payments to hospitals for certain outpatient services so the total payment would be equal to that paid in physician offices.
- Hospitals are increasingly losing favorably reimbursed elective diagnostic and surgical care patients necessary to fund the standby role to providers such as physician offices, physician-owned, limited-service hospitals and ambulatory surgery centers that provide little, if any, emergency or safety net care and do not act as first responders during disasters.

THE ROLE OF HOSPITALS IS UNIQUE: Always there, for all populations, ready to care, from the routine to the catastrophic. Rising demand, constrained capacity and the erosion of financing are putting this role at risk. This raises important questions for policymakers about how to ensure this critical part of our nation’s health care infrastructure can meet current and future challenges.



PREPARED TO CARE PROVIDING 24-HOUR ACCESS TO CARE

SETTING: THE HOSPITAL OF CENTRAL CONNECTICUT

9:30 a.m. – In 28 of the 46 ED exam bays, patients are being evaluated and treated for a variety of urgent conditions (six of the 46 beds are fast-track beds, which opened at 9 a.m. to serve people with non-emergent needs). Of the 28 patients, five are awaiting an inpatient bed for admission; two additional patients are awaiting admission to psychiatric beds; and six other crisis patients are awaiting evaluation, medical stability and disposition. Two patients are in the waiting room with varied non-urgent and urgent symptoms. Other patients in the ED include four alcohol intoxication patients “sleeping it off” until their blood alcohol levels drop to a safe level. For the ED physicians and staff, it appears to be an average day.

9:35 a.m. – The local school nurse calls saying “I had two kids collide playing basketball in gym class. One is light headed and seeing double. The other child’s nose is bleeding – it might be broken. They are on the way over.”

9:40 a.m. – Three patients walk-in simultaneously. A female in her late 50s is complaining of acute abdominal pain. The second is a male in his 40s suffering from severe and debilitating migraines.

The third, an elderly male in his 60s complaining of severe nausea, has been vomiting for several hours.

9:45 a.m. – Ambulance C-Med calls to notify that there was a three-car accident on Interstate 84. Initial assessment is that there are five adults and one young child who will require immediate emergency medical care.

9:50 a.m. – Three more patients need to be admitted, bringing the total to eight patients who need admission, plus two more seeking psychiatric beds.

9:55 a.m. – A middle-aged man in his early 40s arrives in the ED complaining of flu-like symptoms. He is vomiting, suffering from nausea, and running a fever. A 60-year old female patient arrives by car complaining of severe crushing chest pain.

10:00 a.m. – A woman in her late 30s arrives at the ED after slicing her finger open while cutting vegetables.

In 30 minutes, the ED patient load has increased by more than one-third. While the demand is unexpected, the hospital is not unprepared.

Source: The Hospital of Central Connecticut, New Britain, CT.

Health care needs are frequently unanticipated – from the child with a broken arm, to the elderly stroke patient, to the victims of a multi-car accident. Each day an average of 355,000 people seek medical care in the hospital ED – the only health care resource that is staffed 24/7 and equipped to respond immediately to patients with widely differing types and severity of medical conditions and injuries.

INCREASINGLY HEAVY RELIANCE ON 24-HOUR ACCESS TO CARE

Communities rely heavily on access to emergency care capacity: 44 percent of hospital care begins in the ED.¹ Furthermore, hospitals serve other patients with immediate needs, including the 3.7 million mothers who give birth in America’s hospitals,² and physicians frequently refer patients with urgent diagnostic needs to hospital laboratory and radiology departments.

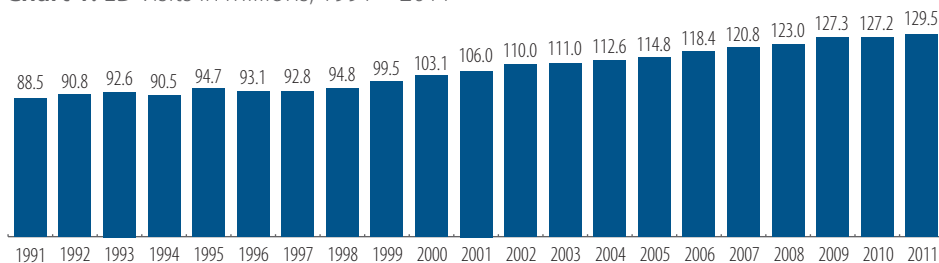
More than half of ED visits occur outside of normal business hours.³

Over the past decade, the number of patients seeking ED care has increased by 22 percent (Chart 1),⁴ driven by an increase in the number of Medicaid beneficiaries and uninsured patients, rising levels of chronic disease, and an aging U.S. population. By 2020, if ED visits continue to grow at this rate, hospitals will be treating an additional 29 million individuals each year.



Demand for emergency access to care is rising.

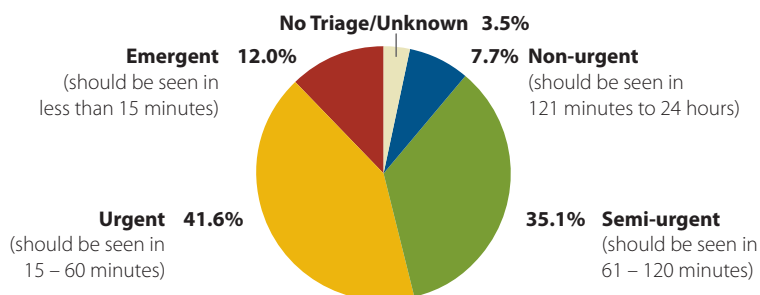
Chart 1: ED Visits in Millions, 1991 – 2011



Source: AHA Annual Survey, 1991 – 2011 data for community hospitals.

Most ED patients have immediate health care needs.

Chart 2: ED Visits by Level of Urgency, 2009



Source: Centers for Disease Control and Prevention, National Hospital Ambulatory Medicare Care Survey: 2009 Emergency Department Summary.

Medicaid beneficiaries represent 17 percent of the population but account for 29 percent of ED visits.⁵

With more patients seeking care in the ED, unscheduled admissions also are rising. From 1993 – 2007 the percent of inpatient admissions originating from the ED grew from 33 to 44 percent.⁶ This growing need requires that hospitals keep greater numbers of inpatient unit beds open, staffed and ready, 24/7.

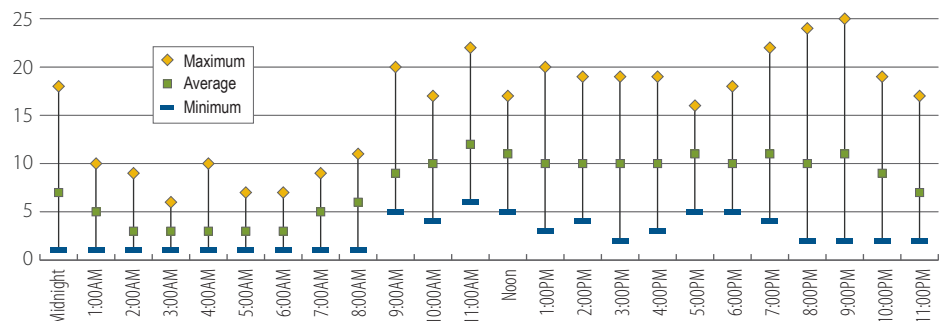
The unpredictable nature of emergency care demand makes providing it more challenging. The number of patients seeking ED care varies enormously hour by hour and day to day (Charts 3 and 4).

WIDE RANGE OF CARE NEEDS REQUIRES EXTENSIVE RESOURCES

Patients' emergency needs vary greatly and require myriad hospital resources. While a child with an ear infection might be evaluated and discharged with a prescription, a broken arm requires an X-ray; stomach pain may require an ultrasound, laboratory work and medication; and trauma

Emergency care demand is highly unpredictable and can vary greatly by time of day...

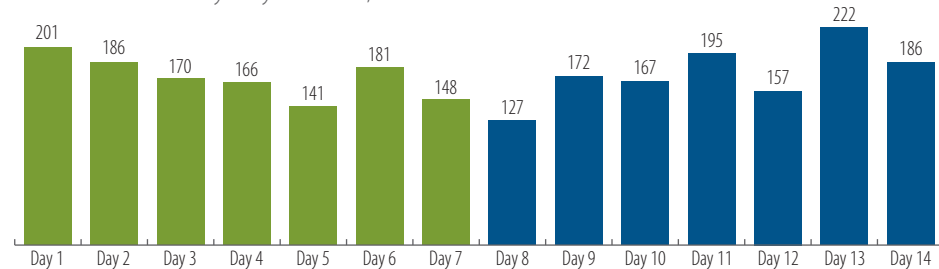
Chart 3: ED Visits by Hour of Day, October 1 – 31



Source: The Hospital of Central Connecticut, New Britain, CT.

...and day of week, raising management challenges for hospitals.

Chart 4: ED Visits by Day of Week, November 17 – 30



Source: The Hospital of Central Connecticut, New Britain, CT.

BEHAVIORALLY ILL ARE INCREASINGLY RELIANT ON HOSPITAL EDS

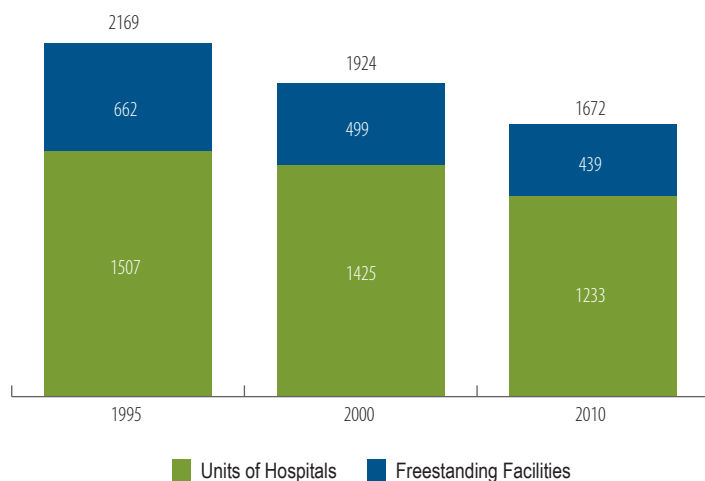
Declining reimbursements from payers and the erosion of public support have resulted in reductions and/or eliminations of inpatient psychiatric units and/or beds in hospitals as well as in private, free-standing and state behavioral health facilities (Figure A). Many outpatient centers also have closed and some behavioral health specialists are limiting their practices to fee-for-service patients only. As a result, individuals suffering from mental health and substance abuse (MHSA) conditions increasingly turn to EDs for care (Figure B).

When they arrive at the ED, MHSA patients often are

diagnosed with co-morbidities and/or may pose a physical danger to themselves or others. Many EDs are not equipped with “quiet rooms” and/or staff trained to care for MHSA patients. In some parts of the country, finding an inpatient psychiatric bed can take 12 or more hours and, in some cases, patients will remain in the ED for days until a bed can be found. Pediatric patients present an even greater placement challenge. In a recent survey, 45 percent of hospitals reported a moderate to significant increase in “boarding” by MHSA patients.⁷

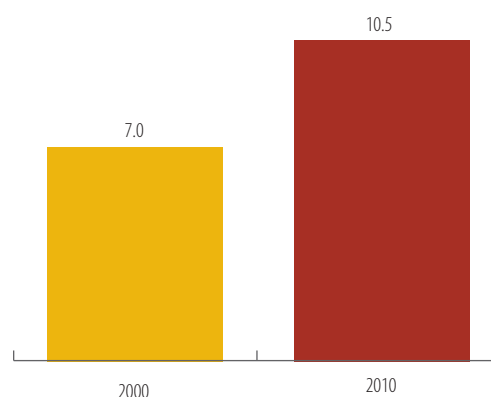
Decreasing resources for behavioral health care have led more patients to turn to the ED for care.

Figure A: Inpatient Psychiatric Facilities, 1995 – 2010



Source: Health Forum, AHA Annual Survey of Hospitals, 1995-2010.

Figure B: Behavioral Health-related ED Visits in Millions, 2000 – 2010



Source: AHA analysis of National Hospital Ambulatory Medical Care Survey, 2000 and 2010.

“Emergency care is about being prepared for the unexpected all the time. We have to have all our resources ready to care for the highest levels of demand every hour of every day.”

– **Coreen Vlodarchyk**, chief nursing executive and vice president for patient care services, Barnes-Jewish Hospital, St. Louis, MO.

or a heart attack may require immediate surgery (Chart 5).

Some conditions are “common” and treated with high frequency. Others might be rare and seen no more than a few times a year. A typical urban hospital ED can expect to see – and must be prepared to treat – well over 1,600 unique conditions (Chart 6). As a nation, we expect that a wide range of clinical expertise, equipment and medical supplies will be available 24/7 for any one of those conditions.

Maintaining ED, radiology, laboratory, pharmacy, surgical services, general and intensive care units, and labor and delivery capacity, as well as access to the clinical

expertise of physicians in many specialty areas, is essential to meet a community’s 24/7 health care needs. Larger hospitals will maintain continuous access to a full array of resources – either on-site or on-call – in the event an emergency patient arrives. This could include physicians in up to 20 specialties and sub-specialties as well as on-call cardiac catheterization teams, open heart surgical teams and endoscopic teams. Smaller hospitals are able to meet the needs of the majority of patients, but also must maintain the capacity to stabilize and transfer patients when necessary. The capabilities of a particular hospital will vary with the needs of the community and the

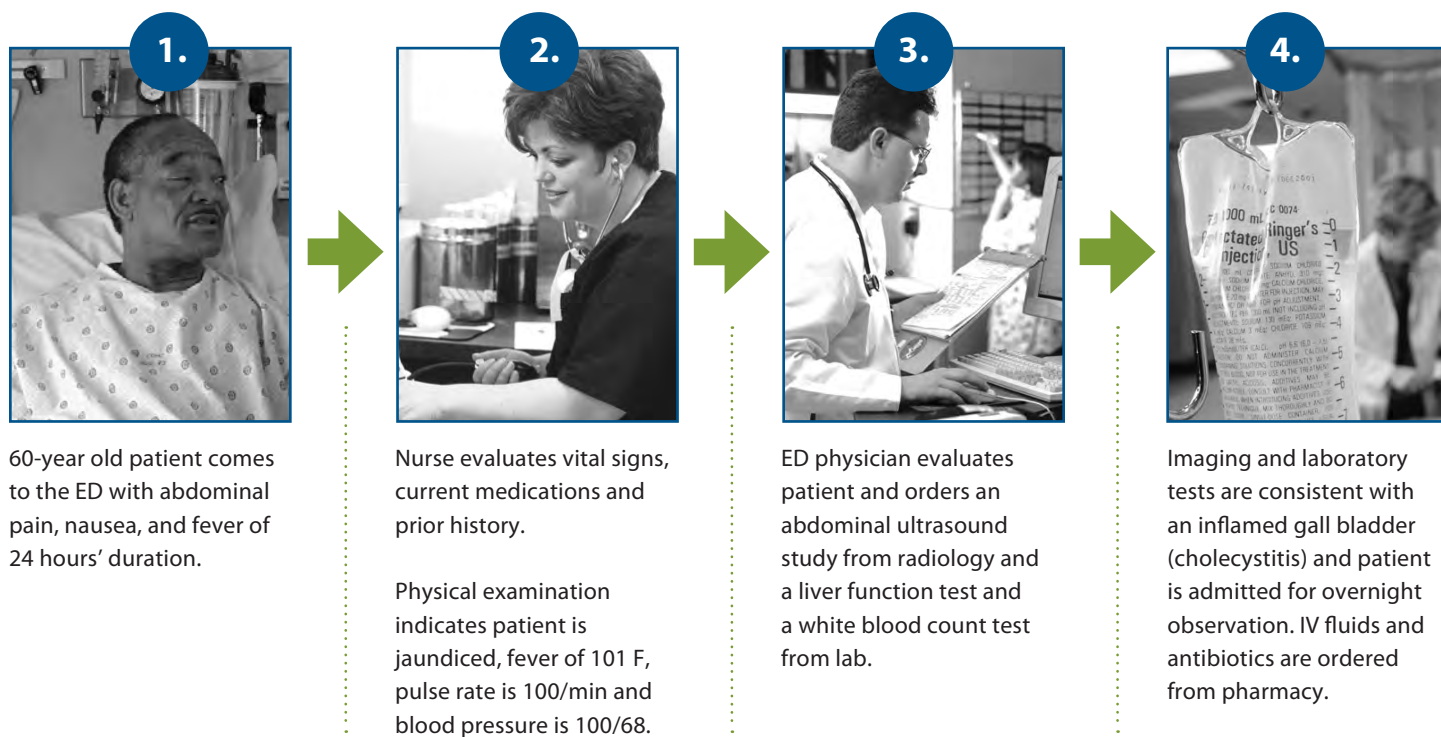
GENESIS TRAUMA CENTER SAVES COMMUNITY \$22 MILLION

Since it first opened in January 2010, the trauma center at Genesis Health Care in Zanesville, OH, has treated and admitted about 1,500 patients. Previously, many of these patients would have been transported by ground or air to Columbus, OH. Flying a single patient to Columbus by helicopter costs about \$16,000, while an ambulance trip costs about \$1,600. This amounts to a savings to the community of about \$22 million so far. Genesis also is working to prevent injury in the first place. As part of a program called “Think First,” doctors and nurses have talked to more than 2,000 children at local schools about the dangers of texting while driving and the importance of wearing helmets while cycling.

Source: Zanesville Times Recorder, October 5, 2012.

Common patient conditions require a wide variety of resources to be available 24/7.

Chart 5: Example: Resource Needs for Common Condition



THE CHALLENGES OF SERVING RURAL AMERICA

Ensuring 24/7 access to care for the 51 million Americans who live in rural communities⁸ represents a special challenge. For those living in sparsely populated, rural areas, the nearest hospital can be miles away, often on narrow roads over mountainous terrain, and travel is subject to seasonal weather. As a result, care must be organized differently (Figure C).

The nearly 2,000 hospitals located in rural America maintain varying levels of resources depending on community needs.⁹ The smallest rural hospitals, the nation's 1,327 critical access hospitals, can handle many emergency conditions.¹⁰ Many of these and other small, rural hospitals are staffed with family practice physicians trained to diagnose and treat a wide array of conditions. Larger rural facilities maintain a more diverse complement of specialty physicians. These

services ensure that patients seeking emergency care for many conditions can be treated and discharged or admitted.

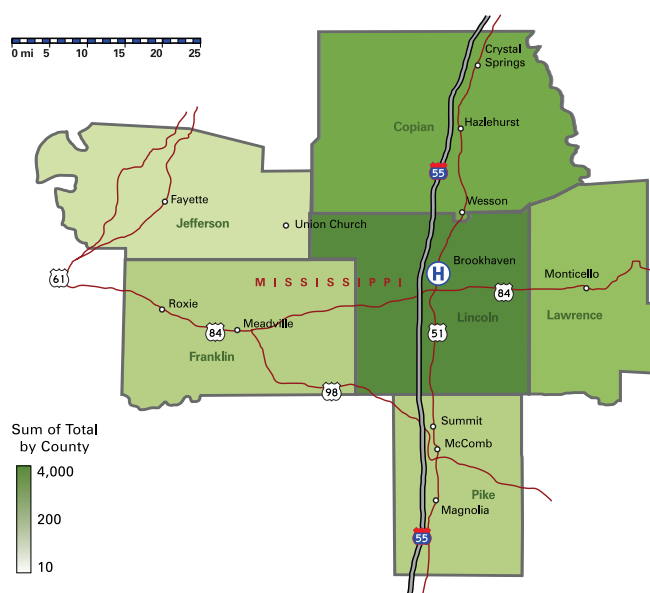
Patients who arrive at EDs with conditions requiring specialty consults, procedures, diagnostics or intensive care not available at these hospitals are evaluated, stabilized and subsequently transferred. Hospitals typically establish transfer relationships to ensure that the needs of the most acutely ill and injured patients are met. Relationships are particularly important for small, rural hospitals that may not have the breadth of resources that can be supported in more densely populated areas. Depending on the patient's needs, the transfer could be to a larger rural hospital, a facility in a metropolitan area, or, for the most severe patients, by airlift to a Level I trauma center.

"In rural areas, 24/7 service is essential. It is not easy, it is not cheap, but it is essential."

– Kelley Evans, CEO, Beartooth Billings Clinic, Red Lodge, MT.

Rural hospitals often serve large geographic areas.

Figure C: Geographic Region Served by King's Daughter Medical Center, Brookhaven, MS



Source: King's Daughter Medical Center, Brookhaven, MS.

health care resources it has available to it.

Those injured in car accidents, acts of violence and industrial accidents often need the highly specialized resources available at burn centers or Level I trauma centers (Charts 7 and 8). The U.S. has just 148 Level I trauma centers and 127 burn centers.^{11,12} Level I trauma centers cover large geographic areas, including not only neighboring counties but in some cases neighboring states. In communities without trauma and burn centers, hospitals focus on stabilizing patients and transferring them for specialized care when appropriate.

This type of emergency care “network” of standby capacity is viewed as a regional service and public good. For example, Oklahoma University Medical Center is the only Level I trauma center in the state, making it as important to the health and welfare of Oklahoma’s 1.3 million rural residents as it is to the population of Oklahoma City.¹³

The average yearly cost of operating a Level I trauma center in the state of Georgia is about \$5.6 million.¹⁴

A typical full-service hospital is equipped to respond to more than 1600 unique conditions.

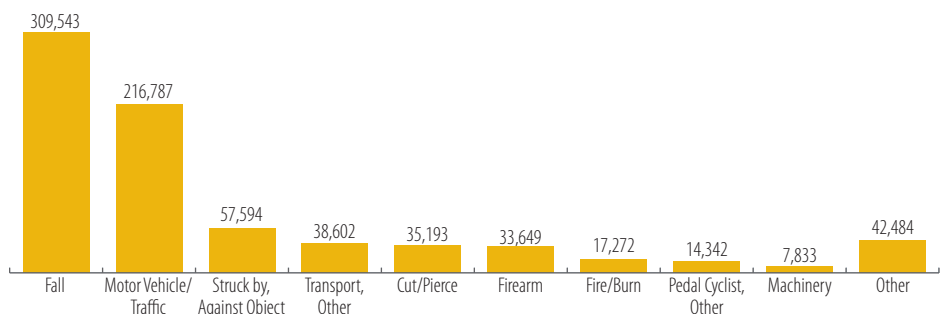
Chart 6: Emergency Visits and Conditions Treated
Example: The Hospital of Central Connecticut



Source: The Hospital of Central Connecticut, New Britain, CT, a 350-bed hospital with 2 campuses in central Connecticut.

Victims of accidents or violent crimes often are transported to trauma centers...

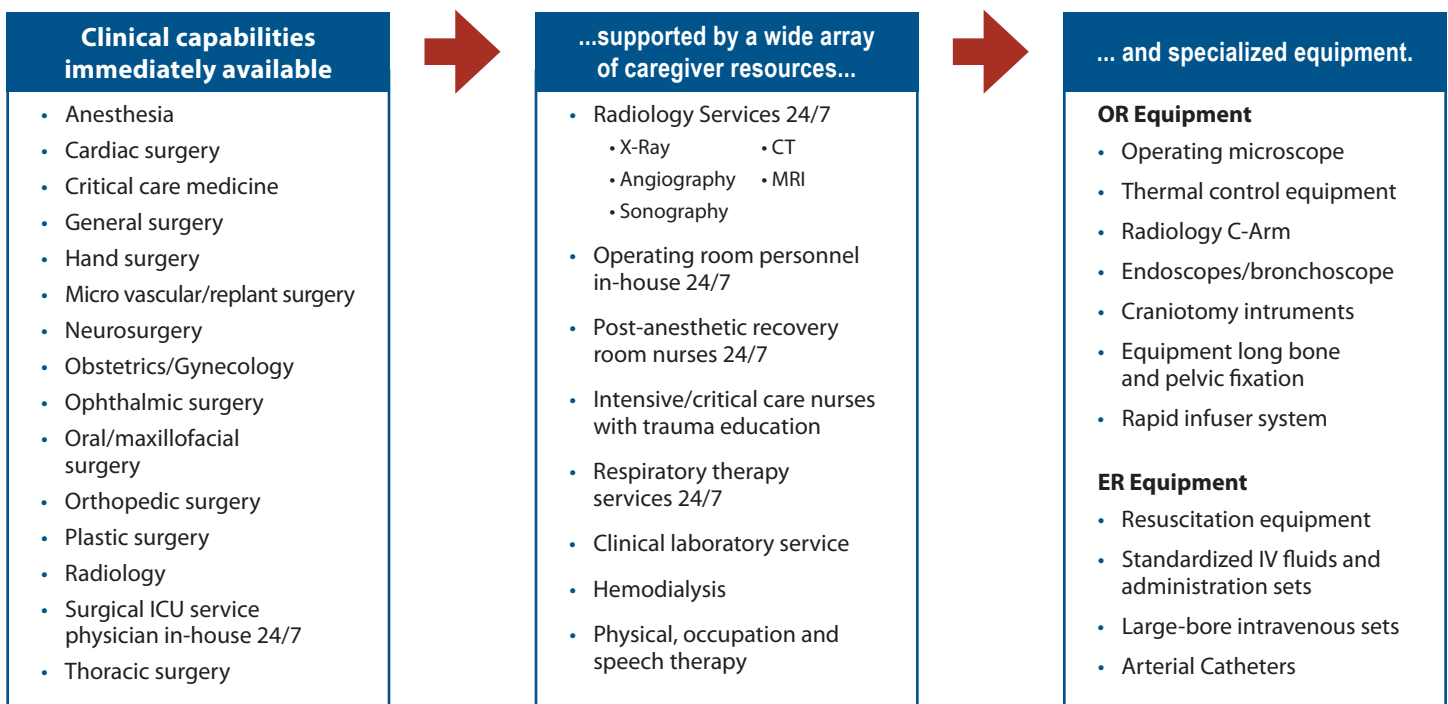
Chart 7: Accidents Cared for at Trauma Centers, 2011



Source: The Hospital of Central Connecticut, New Britain, CT.

...where extensive and highly specialized resources are available 24/7.

Chart 8: Selected Resource Requirements for Level 1 Trauma Centers



Source: American College of Surgeons: Resources for Optimal Care of the Injured Patient. 1999.



PREPARED TO CARE THE SAFETY NET ROLE

In Pasquotank County, NC, home of Albemarle Hospital, 18 percent of residents live below the poverty level and more than 25,000 are indigent, uninsured or underinsured. Within these groups, minorities and a growing Hispanic population are experiencing an increase in chronic diseases such as high cholesterol, high blood pressure, obesity and diabetes. To serve the growing health needs of this population, the Albemarle Hospital Foundation developed Community Care Clinics that offer free primary care, prescriptions and prescription assistance in each of the six counties within its service area. In its first year, the Elizabeth City Community Care Clinic filled more than 14,000 non-narcotic prescriptions through its pharmacy; helped clients fill more than 12,000 prescriptions through a prescription assistance program; and provided more than 930 patients with free medical care totaling more than \$4.5 million in free health care services for this clinic alone.

Source: Staff Interviews, Albemarle Hospital, Elizabeth City, NC, March 12, 2012.

Nearly 49 million Americans have no health insurance coverage, including nearly 8 million children.¹⁵ Medicaid covers 69 million individuals, including 33 million children and nearly 11 million disabled people.¹⁶ Many of these individuals lack a regular source of health care and look to community hospitals as their medical safety net.

As part of their mission, and by federal law under the *Emergency Medical Treatment and Labor Act* (EMTALA), hospital EDs must screen and stabilize all patients entering the ED regardless of an individual's ability to pay. This requirement is unique to the nation's hospitals with EDs and, thus, for many of America's uninsured and other low-income vulnerable people, the hospital ED has become the primary point of access for health care services.

Hospitals are also a repository for many of the social ills facing communities, including poverty, homelessness and substance abuse. As such, hospital services go beyond the ED as well. Hospitals provide a range

of community services, including health screenings, health fairs, community outreach, wellness and preventive care, and meals on wheels (Chart 9).

These programs provide significant benefits. Glendale (CA) Adventist Children's Health Outreach Initiative assisted more than 10,000 individuals to enroll in free or low-cost health insurance. Also, Glendale Adventist hosts more than 40 health education classes serving nearly 6,000 people each year.¹⁷

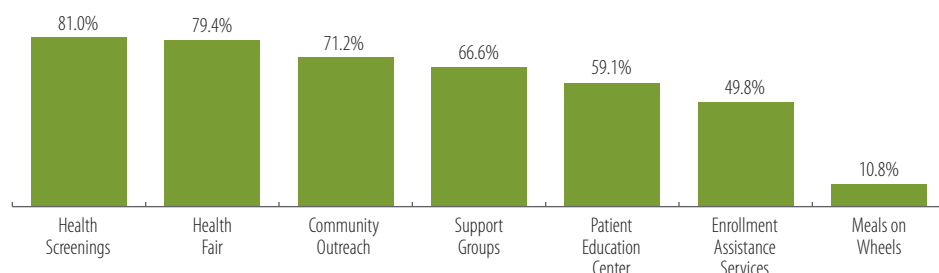
In 2011, 1 in 6 Americans was uninsured; of those, 7 in 10 of working age were employed.¹⁸

GROWING NEED FOR SAFETY NET SERVICES

Medicaid beneficiaries and the uninsured are more likely than privately insured patients to seek ED care, and their numbers are

Hospitals provide many community services for low-income populations and the community at large.

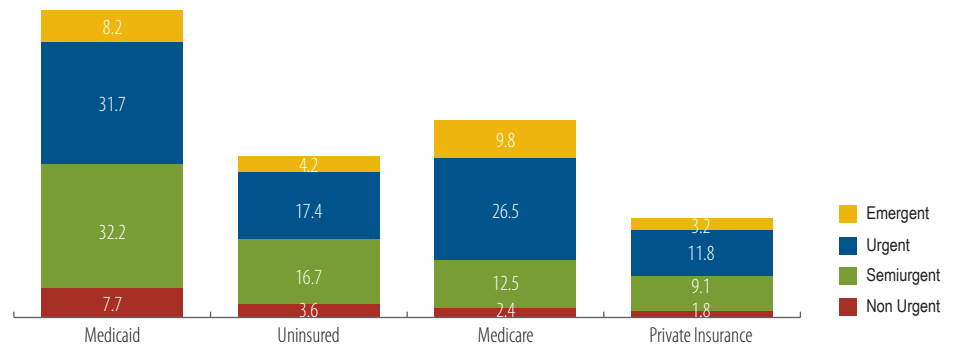
Chart 9: Percentage of Community Hospitals Offering Selected Community Services, 2011



Source: AHA Annual Survey. 2011 1 data for community hospitals.

Medicaid beneficiaries use more ED care than other populations.

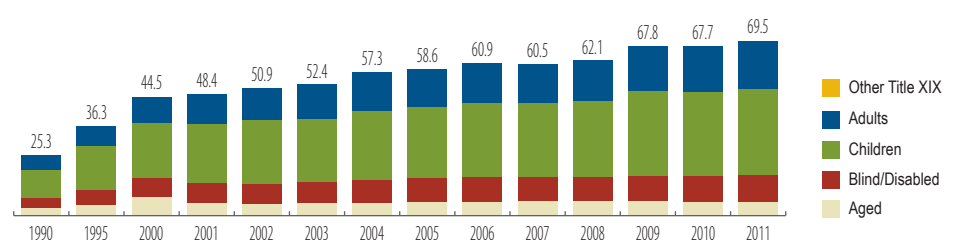
Chart 10: ED Visits per 100 Population, 2009



Source: Centers for Disease Control and Prevention, National Hospital Ambulatory Medical Care Survey: 2009 Emergency Department Summary; and US Census Bureau. Income, Poverty, and Health Insurance Coverage in the United States: 2010. Sept. 2012.

The number of Medicaid beneficiaries has nearly tripled since 1990.

Chart 11: Medicaid Enrollees⁽¹⁾ in Millions, 1990 – 2011

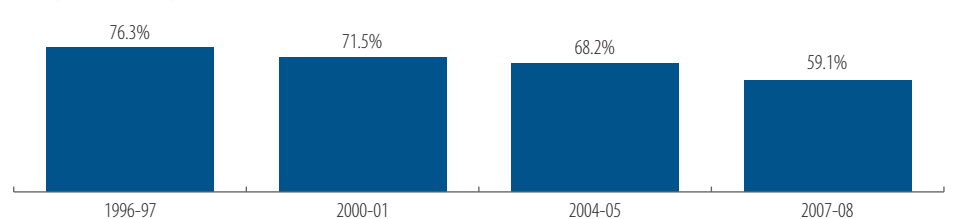


Source: Congressional Budget Office. Data released February 2011. Spending and Enrollment Detail for CBO's March 2011 Baseline: Medicaid. Link: <http://www.cbo.gov/budget/factsheets/2011b/m Medicaid.pdf>.

⁽¹⁾ Does not include CHIP Enrollees.

The proportion of physicians providing office/clinic-based charity care is declining.

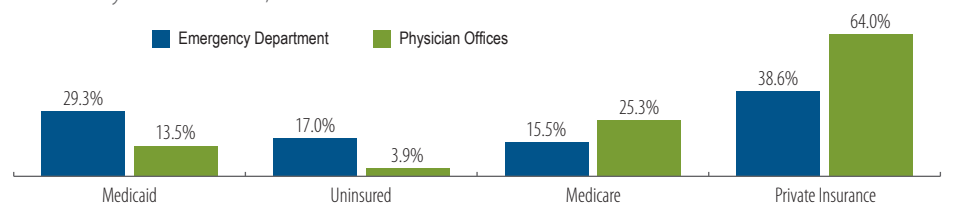
Chart 12: The Percent of Physicians Providing Office/Clinic Based Charity Care 1996/97 – 2004/05 – 2007/08



Source: Center for Studying Health System Change, A Snapshot of U.S. Physicians: Key Findings from the 2008 Health Tracking Physician Survey, Data Bulletin No. 35, Sept. 2009.

EDs serve proportionally more Medicaid and uninsured patients than physician offices.

Chart 13: Percent of Total Visits by Expected Source of Payment, EDs vs. Physician Offices, 2009



Source: Centers for Disease Control and Prevention, National Ambulatory Medical Care Survey 2009; National Hospital Ambulatory Medical Care Survey 2009.

growing (Chart 10). Since 1990, the number of uninsured has grown by nearly 14 million and the Medicaid population has nearly tripled (Chart 11).^{19,20}

Declining reimbursement from Medicare, rising professional liability and other costs, have limited the ability of many physician practices to provide charity care (Chart 12). As a result, low-income populations have fewer places to turn for basic care. Without access to ongoing primary care for chronic conditions such as asthma, hypertension or diabetes, many among these populations delay care until their clinical state has progressed to a health crisis requiring emergency care. Hospital EDs serve proportionally more Medicaid and uninsured patients than physician offices (Chart 13).

As a result of both the growth in these populations and the reduced access to other care venues, hospital EDs are seeing greater numbers of low-income and Medicaid patients for all levels of care. From 2004 to 2009, Medicaid and uninsured visits grew by 42 percent compared to 23 percent growth overall.²¹ Overall service to Medicaid and self-pay patients – ED and other care – accounts for 22 percent of the patient care provided by hospitals.²²

The ACA, if fully implemented, is likely to change this trajectory. By 2020, the number of Medicaid beneficiaries is expected to grow from 69 to 93 million²³ and the number of uninsured to drop from 48 to 29 million, depending on how states respond to the Supreme Court decision allowing states to opt out of the Medicaid expansion.²⁴



PREPARED TO CARE DISASTER READINESS AND RESPONSE

On Sunday, May 22, 2011, a catastrophic tornado struck the city of Joplin, MO, in the late afternoon. With winds in excess of 200 miles per hour (mph), the $\frac{3}{4}$ -mile-wide tornado cut a six-mile path of destruction through central Joplin. The tornado caused 161 fatalities and approximately 1,371 injuries, making it the single deadliest U.S. tornado since 1947. Thousands of structures were destroyed or damaged, from single family homes to apartment buildings to large retail and public buildings. The devastation included St. John's Regional Medical Center – now known as Mercy Hospital Joplin.

For Mercy Hospital Joplin, the decision to evacuate in the tornado's aftermath was immediate. Within 90 minutes 183 patients, including 28 critical care patients, in addition to the numerous staff and visitors also in the facility, were

safely evacuated. The Incident Command System unified command through Mercy and an alternate care site at Memorial Hall was quickly established to receive and care for victims in the hours and days immediately following the tornado. Mercy also established incident command at the Joplin convention center to begin planning for a temporary hospital. Coordinating with the Missouri Disaster Response System, Mercy established a temporary hospital and began receiving patients exactly one week after the tornado. To accomplish this feat required the assistance of the entire Mercy system, which developed and coordinated 17 work streams to support local and system response and supported all of the critical decisions and functions required to ensure rapid return of health care services to Joplin.

Source: Missouri Hospital Association, Lessons Learned from the Missouri Disasters of 2011, September 2012.



Photo Credit: Mercy Health

Hospitals are first responders to disasters. From providing and coordinating care, to offering shelter and food, hospitals are pivotal to disaster response activities whether they are rural critical access hospitals or Level I trauma centers.

While hospitals have always had disaster plans in place, the terrorist acts of September 11, Hurricane Katrina, more extreme weather patterns and the threat of pandemic flu have increased our assessment of the likelihood of disaster and raised the bar for disaster preparedness.

PREPAREDNESS: AN IMPERATIVE FOR ALL HOSPITALS

The often unpredictable nature and timing of disasters require all full-service hospitals to be capable of responding to a variety of potential events at any time (Chart 14). Hospitals spend a great deal of time and resources on preparation activities, including developing, testing and refining disaster response logistics and clinical plans for various simulated events (Chart 15). These processes and protocols enable hospitals to quickly organize manpower, call in support, organize patient treatment plans and locations, procure and organize needed equipment and supplies, and coordinate with other facilities.

85 percent of hospitals reported having participated in a community-wide disaster drill with local police and fire departments, social service agencies and other health care providers within the past year.²⁵

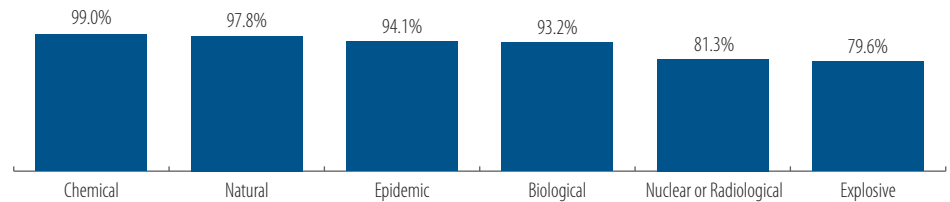


“Individuals who are in the medical profession, when they find themselves in these moments, I always believe they are at their best. This is what we do.”

– Terrie Sterling, Chief Operating Officer, Ochsner Medical Center, New Orleans, LA

Hospitals plan for multiple types of disasters.

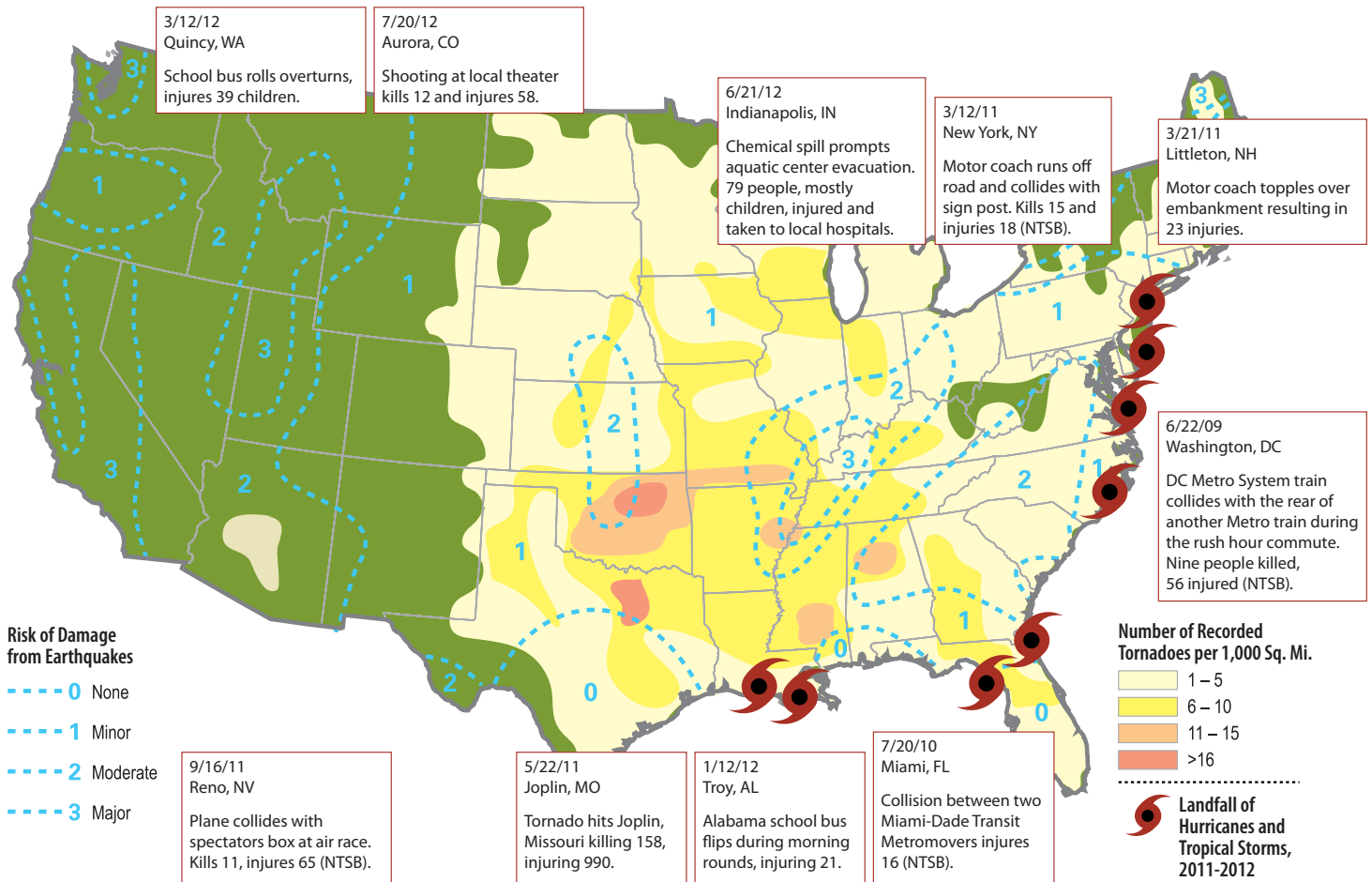
Chart 14: Percent of Hospitals with Response Plans by Type of Incident, 2008



Source: Centers for Disease Control and Prevention, Hospital Preparedness for Emergency Response: United States, 2008.
<http://www.cdc.gov/nchs/data/nhsr/nhsr037.pdf>

Hospitals in all regions must be prepared for a range of natural and manmade disasters.

Chart 15: Selected Recent U.S. Disasters



Source: National Hurricane Center; FEMA: Taking Shelter from the Storm: Building a Safe Room Inside Your House; The National Coalition For School Bus Safety; National Transportation Safety Board; Michigan Tech (<http://www.geo.mtu.edu/UPSeis/area.html>)

RESOURCES AT THE READY

Hospitals annually invest significantly to develop and test disaster response plans, train clinical and support staff, maintain and replace disaster response equipment and supplies, enhance communication and surveillance capabilities, and enable better patient transport and care.

Equipment purchases, training, plan development and testing costs are funded through a hospital's operating budget. Our Lady of the Lake Regional Medical Center in Baton Rouge, LA, invested \$20 million in a gas-powered generator that ensures that staff can keep delivering care when hurricanes knock out the hospital's electricity.

The dedicated men and women of America's hospitals are critically important resources in responding to a disaster.

Following a disaster, the resulting health care needs often can push the limit of a community's health care system. Natural disasters cut power, destroy homes and often make bridges and roads impassable. But it is during these times that the hospitals and their employees truly show their unique value. For example, after Hurricane Katrina, trees and power lines were down throughout the Gulf Coast region. Employees of King's Daughter Medical Center in Mississippi, some of whom lived 20-30 miles away, threw chainsaws in the back of their cars to cut away fallen trees that they might encounter en route. For many, these routinely half-hour trips took the better part of a day.

Sometimes hospitals themselves may need to evacuate, which is something for which they train and prepare.

Common Disaster Response Equipment and Supplies

- ✓ Generators
- ✓ Communication Systems
- ✓ Personal Protective Equipment
- ✓ Decontamination Facilities
- ✓ Medical Supplies and Pharmaceuticals
- ✓ Disease Surveillance Systems

HURRICANE RESPONSE IN FLORIDA'S PANHANDLE (FIGURE D)

Certain geographic areas are more prone to particular disasters. In Pensacola, FL, the community and its hospitals are accustomed to the almost annual occurrence of a hurricane. Pensacola's Baptist Hospital plays a pivotal role in organizing the community's response.

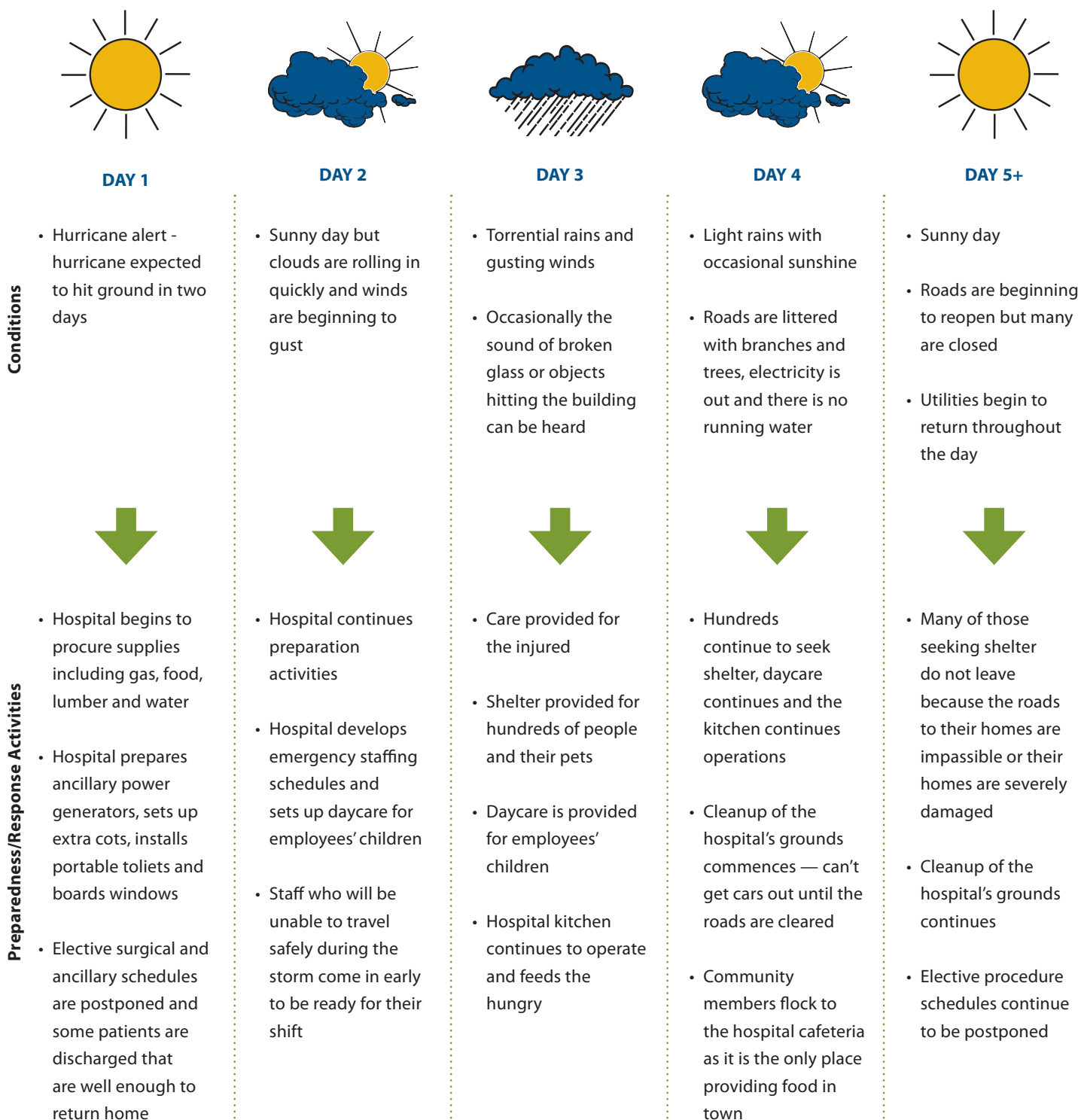
As soon as a hurricane is identified and expected to make landfall, Baptist goes into emergency planning mode. It spends significant dollars procuring essentials such as gas, food, lumber and water. Baptist prepares ancillary power generators, sets up extra cots, installs portable toilets and boards up windows. In addition, it creates additional patient care capacity by postponing elective surgeries and ancillary procedures and discharging patients who are well enough to return home. In preparation for one hurricane, Baptist Hospital can spend about \$500,000, depending on the expected severity of the storm.

Because hospitals are seen as "safe havens," community members often arrive at Baptist the night before the hurricane hits with their pillows, blankets, bags and pets in tow. Many of those arriving are pregnant, elderly or on respirators. When a hurricane hits, Baptist provides care for the injured, daycare for its employees' children, and food for the hungry.

After the hurricane, Baptist's role in responding continues. It cares for persons injured in the hurricane and shelters people for several days as they wait for roads to clear and electricity and running water to return. People might continue to seek shelter for several days as they wait for a semblance of normalcy to return.

Disaster response in hurricane zones can last for days and require hospitals to play many different roles

Figure D: An illustration of Hurricane Response, Baptist Hospital, Pensacola, FL



PREPARED TO CARE CHALLENGES TO MAINTAINING THE STANDBY ROLE

The increased demand for the standby role – for all populations from routine emergencies to community-wide disasters – raises critical resource challenges for hospitals. Hospitals not only face increased need for staff and space, but also financial challenges, including shortfalls from government payers, potential cuts to payments as many fail to recognize the differences between hospitals and other sites of care, and a loss of patients and revenues to other types of providers who do not fulfill this essential role.

CAPACITY CONSTRAINTS IN THE FACE OF RISING DEMAND

A sufficient supply of hospital caregivers and other staff is essential to maintaining access to high-quality care, effective response times, and necessary service availability. Over the next decade, the Bureau of Labor Statistics estimates that hospitals will need an additional 900,000 staff. In general the need for health care workers will grow, with hospitals competing with many other care venues for newly trained workers (Charts 16 and 17).

Hospitals are projected to need an additional 900,000 workers by 2020.

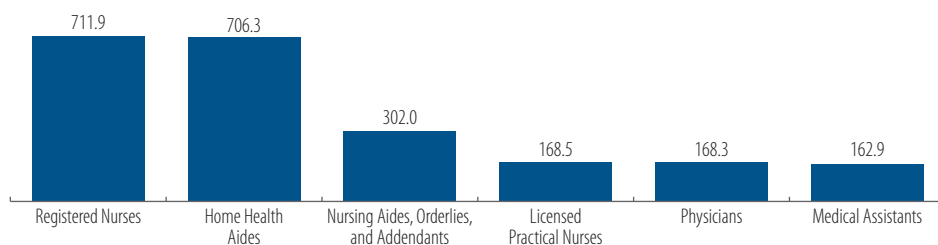
The health care system also will be facing a shortage of physicians, especially as coverage expands under the ACA. By 2025 there is expected to be a shortage of more than 130,000 specialist and generalist physicians (Chart 18).²⁶ The physician supply imbalance already is being felt. In a recent survey, hospitals reported growing difficulty maintaining specialty ED on-call coverage across a variety of specialties, and half of community hospitals now pay for emergency on-call coverage. Coverage for surgery, orthopedics and psychiatry was most problematic.²⁷

Staff shortages combined with physical capacity constraints make it increasingly difficult for hospitals to meet the rising demand for emergency care. Since 1991, the number of ED visits grew by 41 million, but there are 647 fewer hospitals with EDs to handle these visits (Chart 19).²⁸

Currently, half of urban hospitals report that their EDs are “at” or “over” capacity and 45 percent reported time on ambulance diversion in the past year. The most common reasons cited are lack of critical care beds and ED overcrowding (Chart 20).²⁹

Demand for health care workers is rising.

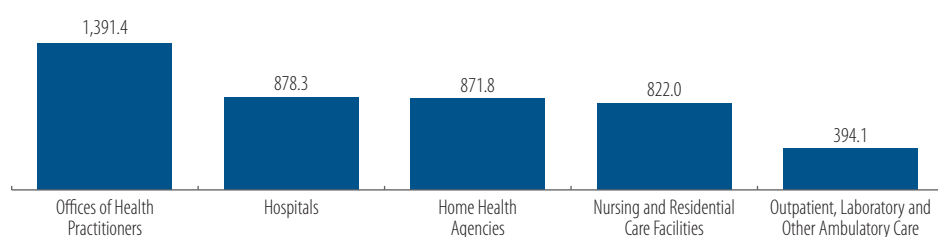
Chart 16: Projected Employment Growth by Occupation in Thousands, 2010 – 2020



Source: Bureau of Labor Statistics, Employment Projections, 2010–2020, February 1, 2012.

Hospitals will be competing with many other health care venues for workers.

Chart 17: Projected Employment Growth by Care Setting in Thousands, 2010 – 2020



Source: Bureau of Labor Statistics, Employment Projections, 2010–2020, February 1, 2012.

DECLINING FINANCIAL SUPPORT

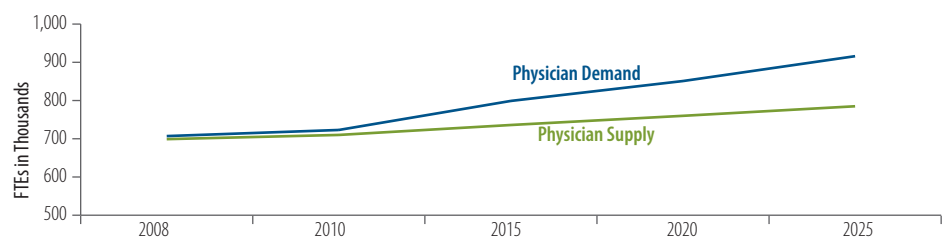
The standby role of the hospital is not explicitly funded. Unlike fire and police departments, hospitals typically receive no payments to keep staff and space at the ready. Instead, the standby role is built into the cost structure of



Photo Credit: Mercy Health

By 2025, demand for physicians will outstrip supply by more than 130,000.

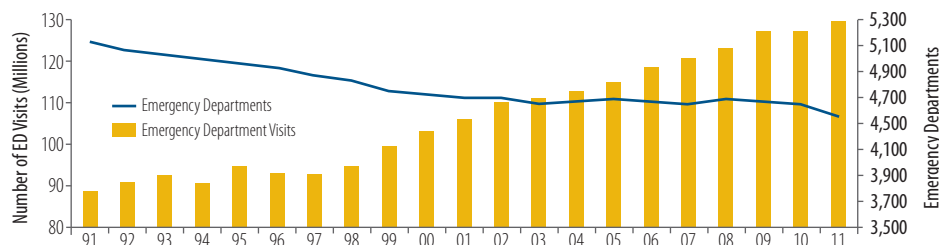
Chart 18: Physician Supply and Demand in Thousands, 2008 – 2025



Source: Association of American Medical Colleges, Physician Shortages to Worsen Without Increases in Residency Training, 2012.

As the number of patients seeking ED care has risen, the number of EDs has declined.

Chart 19: ED Visits and EDs⁽¹⁾ in Community Hospitals, 1991 – 2011



Source: AHA Annual Survey data, 1991 - 2011, for community hospitals.
⁽¹⁾ Defined as hospitals reporting ED visits in the AHA Annual Survey.

hospitals and supported by revenues from direct patient care. Although quantifying the costs is difficult, they are real and spread across every service – emergent or elective – that the hospital provides. However, generating sufficient funds from patient care to fund this role is becoming more difficult.

Hospitals face declining financial support for the standby role because of growing shortfalls in public payment, calls to cut payments for services to the rates paid in other care venues that do not provide the stand-by role, and the migration of care – and revenues – away from the hospitals that perform these services.

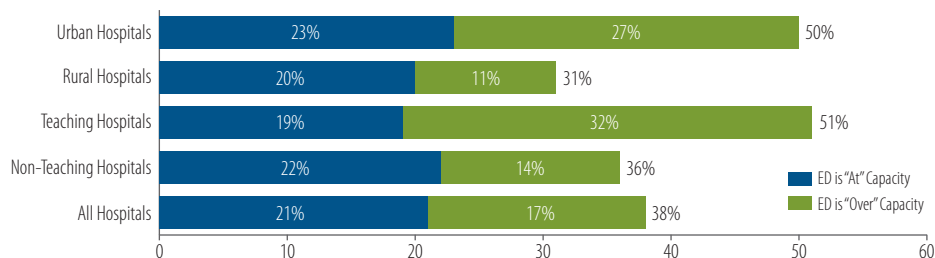
GROWING SHORTFALLS IN PUBLIC PAYMENT RELATIVE TO COSTS

The erosion of public funding for patient care makes it harder for hospitals to support the standby role. Currently, Medicare and Medicaid in aggregate do not cover the full cost of care for program beneficiaries but their beneficiaries account for about half the care provided by hospitals. In 2010, the aggregate shortfall of government funding for Medicare and Medicaid beneficiaries was estimated at \$28 billion dollars (Chart 21).³⁰ Additional cuts to Medicare payments are likely as Congress seeks to cut the deficit.

The rising number of uninsured patients contributes to financial challenges. Between 2000 and 2010, the cost of uncompensated care grew by 82 percent, from \$21.6 to \$39.3 billion (Chart 22).³¹ Federal and state governments traditionally provide funding to help hospitals that have an unusually large share of low income populations through disproportionate

Half of all urban and teaching hospitals are “at” or “over” capacity in their EDs.

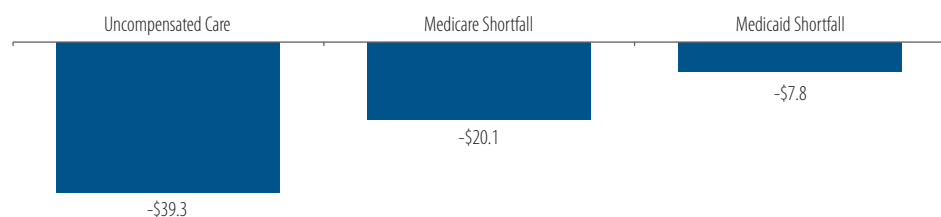
Chart 20: Percent of Hospitals Reporting ED Capacity Issues by Type of Hospital, March 2010



Source: AHA, The State of America's Hospitals: Taking the Pulse, 2010.

Government underpayment on top of uncompensated care leaves hospitals with a \$67 billion shortfall.

Chart 21: Uncompensated Care and Payment Shortfalls from Medicare and Medicaid in Billions of Dollars, 2010



Source: AHA Annual Survey, 2010 Data for Community Hospitals.

share (DSH) adjustments to Medicare and Medicaid payments, direct appropriations, provider taxes and other mechanisms to fund safety net services. But the overall underfunding of Medicare and Medicaid means that payments from private payers must offset both public funding shortfalls and the cost of uncompensated care. Additionally, under the ACA, hospitals face significant cuts to DSH payments beginning in FY 2014, while coverage gains remain uncertain.

CALLS FOR “SITE NEUTRAL PAYMENTS”

In 2011, the Medicare Payment Advisory Commission (MedPAC) recommended that rates for certain evaluation and management services provided in hospital outpatient departments (HOPD) be cut so that total payment is equal to what would be paid in a physician office. The recommendation would cut payment for these services by nearly 70 percent, or nearly \$1 billion each year. MedPAC is considering expanding its recommendation to other services provided in HOPDs. The notion of “site neutral payment,” or paying the same amount for services regardless of whether they are provided in a hospital or other setting, fails to recognize the added cost

hospitals incur to maintain 24/7 access, serve as the health care safety net and be at the ready when disaster strikes.

DECLINING SUPPORT FOR HOSPITAL PREPAREDNESS

Hospitals have been receiving less and less explicit financial support for disaster preparedness in recent years (Chart 23). Prior to September 11, the federal Domestic Preparedness Program had no funding for hospitals. Since then, the federal government’s *Public Health Security and Bioterrorism Preparedness Act of 2002* created the National Bioterrorism Hospital Preparedness Program, subsequently renamed the Hospital Preparedness Program by the *Pandemic and All Hazards Preparedness Act of 2006*, and has distributed approximately \$4.3 billion to hospitals and other health care providers over 11 years.³² This amount, when spread over all hospitals, barely covers the annual salary of an additional nurse. While helpful, this level of funding is insufficient to cover the ongoing cost of disaster preparedness.

Additionally, reimbursement for disaster relief and recovery seldom matches the expenditure. Federal disaster assistance

funding is more attuned to providing funds for property damage than for the added costs, or lost revenues, accompanying a hospital’s response to a disaster. In addition, investor-owned hospitals are not eligible for federal disaster assistance funding at all.

As the demand for emergency access to care increases, the number of Medicare and Medicaid beneficiaries grows, and disaster response preparedness requirements grow, alignment of government funding with public service expectations will be even more critical.

THE MIGRATION OF CARE AWAY FROM HOSPITALS THAT PERFORM THESE ROLES

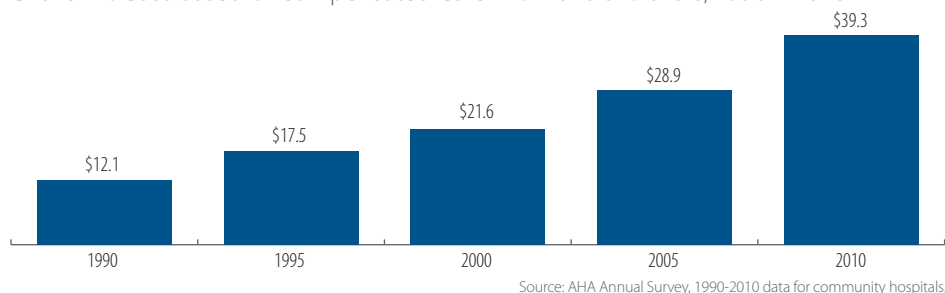
Hospitals attempt to finance under-funded services, government shortfalls and the standby role through surplus revenues generated from favorably reimbursed individuals and services. This patchwork of cross-subsidies is at risk as hospitals are increasingly losing healthier, well-insured patients and well-paid services to care venues outside of the full-service hospitals that perform these roles. Payment redesign could exacerbate these trends.

Physician-owned, limited-service hospitals are one such place – these facilities focus on cardiac, orthopedic and surgical care. The majority of these facilities do not have emergency departments and, instead, primarily offer elective care. Additionally, unlike most other care settings, physician-owners can self-refer patients. As a result of these combined factors, many physician-owned, limited-service hospitals are able to operate with significant control over the flow of patients and achieve a more favorably reimbursed mix of services and patients while providing a smaller proportion of services to low-income populations than competing full-service hospitals.³³ Some even restrict their services to private pay patients. These selection practices take advantage of systemic cross-subsidies built into the health care financing system while simultaneously siphoning the necessary dollars full-service hospitals depend upon to finance the standby role they alone provide.

Full-service hospitals also face a loss of patients as outpatient surgical and diagnostic procedures migrate to other care settings including ambulatory surgical centers (ASCs) and physician offices. On a service-by-service basis, these settings can be less expensive because they do not have the added costs

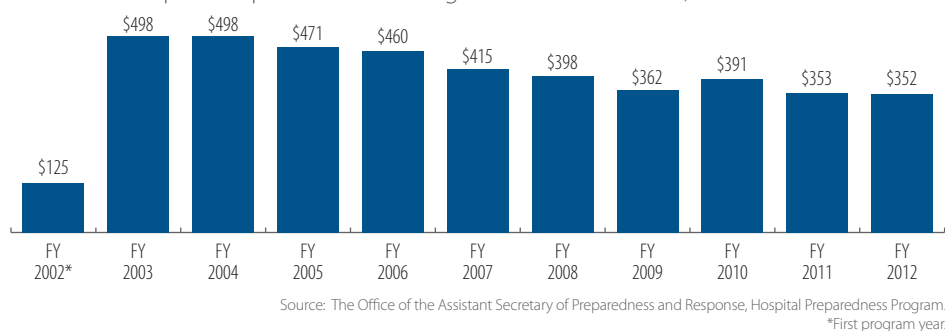
Hospitals face growing levels of uncompensated care.

Chart 22: Cost-based Uncompensated Care in Billions of Dollars, 1990 – 2010



Federal funding for hospital disaster preparedness has declined over time.

Chart 23: Hospital Preparedness Funding in Millions of Dollars, 2002 – 2010



of standby capacity. In some cases, these lower costs are appropriately reflected in reimbursement systems (e.g., ASCs are paid less than hospital outpatient departments for most surgical procedures, reflecting both the different role that hospitals play and the higher acuity level of patients served in the hospital setting). However, there is growing pressure to equalize payment across settings. While this may be attractive to payers looking to pay the least amount possible for each

service, a reduction in payments on top of the migration of patients and associated revenues away from hospitals erodes the ability of full-service hospitals to subsidize the standby role. Ironically, these other care settings rely on the hospital for emergency back-up in the event of patient complications.

New payment mechanisms could create additional incentives to shift care out of hospital settings and further erode the cross-subsidies that support the standby role. Under a bundled

payment system, a provider network would be paid a single combined rate for an episode of care that might encompass an inpatient stay and a variety of follow-up physician and post-acute care services. Accountable Care Organizations would provide care for a defined population for a targeted level of payment. While pushing care to the least costly but still appropriate setting is certainly a desired goal, an unintended consequence could be the erosion of support for the standby role.

POLICY QUESTIONS

The standby role of hospitals is fulfilled daily with notable access, quality and service; however, the future is fraught with challenges. Rising demand, a shortage of resources and funding, a move to equalize payment across care settings without regard for standby costs, and the continued migration of care out of the full-service hospital setting pose credible threats to the hospital's ability to maintain its role as a community asset. Policymakers face critical questions about how best to protect this essential part of the nation's infrastructure in light of these challenges, including:

- How can the standby role – 24/7 access, safety net and disaster preparedness – be financed in an increasingly “site neutral” payment environment?
- How will future financing mechanisms need to be designed in order to support the standby role in the future?
- What is the appropriate role of government in supporting hospital-based disaster preparedness and relief?

- Should all health care facilities be required to support the community's standby capacity and care needs?
- What additional support will be needed to ensure rural hospitals can maintain critical standby services for communities outside major urban centers?
- What is the most cost effective way to organize and coordinate a community's health care resources to support standby capacity?
- What can be done to ensure appropriate care options for the behaviorally ill?

The challenges facing hospitals in maintaining the standby role are symptoms of broader issues facing the health care system in the context of growing need and constrained resources. How the system addresses these issues, the success of these efforts, and the lessons learned will have a profound effect on the health care system as a whole.

ENDNOTES

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² AHA Annual Survey, 2011 data for community hospitals.

³ AHA analysis of Centers for Disease Control and Prevention, National Ambulatory Medicare Care Survey data, 2010.

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¹¹ National Trauma Data Bank, 2012.

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