Always There, Ready To Care

The 24/7 Role of America’s Hospitals
Executive Summary

A hurricane strikes a major metropolitan area, leaving a wide path of destruction in its wake... A train carrying hazardous chemicals derails, triggering a series of explosions and endangering a community’s air and water supplies... An infectious disease emerges, sickening the very young, elderly and vulnerable... A terrorist detonates a bomb in a crowded shopping mall, killing several and severely wounding many others.

America’s hospitals must be prepared to face these and many other types of emergencies, both natural and manmade. This critical role is just part of the unique standby role that hospitals play in their communities, and as part of our nation’s health and public safety infrastructure.

In addition to ensuring that their staff and facilities are prepared to care for victims of large-scale accidents, natural disasters, epidemics and terrorist actions, hospitals must provide 24/7 access to care, including access to specialized services. And unlike other health practitioners and facilities, they provide emergency care for all patients who seek it, regardless of ability to pay.

Despite its importance, the standby role of hospitals 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. Without explicit funding, the standby role is built into the cost structure of full-service hospitals and supported by revenues from direct patient care.

Hospitals today face increasing challenges in maintaining this role, such as increasing demand for services, staffing and space constraints, greater expectations for preparedness, below cost reimbursement from government payers, calls for payments equal to other settings of care, 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 our nation’s health care system. It outlines the pressures hospitals face 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.
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 nearly 19 percent over the past decade. In 2013, there were more than 133 million ED visits.
- Almost half of hospital care begins in the ED.
- The majority of ED patients require immediate care.
- ED visits have risen since the implementation of the Affordable Care Act (ACA).1

Emergency care, by its very nature, requires hospitals to maintain an extensive array of resources.

- Maintaining capacity to provide emergency care around the clock 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.
- Hospital EDs must be 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 disproportionately use the hospital ED to access care.

- An adult with Medicaid is more than 2.6 times more likely and a person without insurance 1.3 times more likely than someone with private coverage to visit the ED.2

Medicaid covered an estimated 77 million people in 2014, including 36 million children.3

- The Congressional Budget Office (CBO) estimates that 42 million Americans still lacked health care coverage in 2014.4
- Hospitals provided $46.4 billion in care for which they received no compensation in 2013.

DISASTER READINESS AND RESPONSE

September 11th, hurricanes, multiple devastating tornados and the threat of diseases such as Ebola have increased the national assessment of the likelihood of disaster or pandemic and raised the bar for 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, isolation rooms, personal protective equipment, 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 have risen, the number of hospitals providing emergency care has declined.
  - Hospitals face a projected need for nearly 900,000 additional caregivers and other staff between now and 2020.
- Hospitals’ standby role is not explicitly funded; instead it is built into the overall cost structure 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 2013, the shortfall from these programs exceeded $51 billion. And Medicare and Medicaid enrollment is projected to grow from 109.5 million in 2012 to more than 149 million in 2020 with the implementation of the ACA and the aging of the baby boomers.5,6
  - Despite the unique role played by hospitals and the associated costs, policymakers have proposed cutting payments for certain outpatient services to equal the amount paid in physician offices.
  - Hospitals increasingly are losing patients that receive the favorably reimbursed elective diagnostic and surgical care 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.
Providing 24-Hour Access To Care

When a catastrophic car accident left six-year-old Lilli Goins barely clinging to life, she was immediately airlifted to North Carolina Children’s Hospital, recently designated as a Level I pediatric trauma center, one of only five in the southeast. Lilli’s injuries were severe, requiring a broad range of specialty services that were all at the ready in this state of the art facility. Lilli fully recovered. UNC Health Care sees more than 2,000 children with trauma-related injuries in the emergency department annually and admits about 250 trauma patients transferred from other facilities across the state. (Source: UNC Health Care)

“Hers is exactly the kind of case that illustrates the importance of a Level I pediatric trauma center. We have everything that you would need from a pediatric neurosurgeon, to pediatric surgeons, pediatric anesthesia, pediatric intensive care, rehabilitation—all in one place, all the time.”

Kimberly Erickson, M.D., Medical Director Pediatric Trauma Center, UNC Health Care

Health care needs are frequently unanticipated – from the victims of a multi-car accident, to the child with a broken arm, to a woman suffering a heart attack. Each day an average of 366,000 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.7

INCREASINGLY HEAVY RELIANCE ON 24-HOUR ACCESS TO CARE

Communities rely heavily on access to ED capacity: 44 percent of hospital care begins in the ED.8 Furthermore, hospitals serve other patients with immediate needs, including the 3.7 million women who give birth each year in America’s hospitals.9 And physicians frequently refer patients with urgent diagnostic needs to hospital laboratory and radiology departments.

While patients with no other health care options look to the ED for primary care, the majority of patients who present in an ED have urgent medical needs that must be met quickly – physician offices and other care venues often are not an option, even during normal business hours (Chart 1).

Most ED patients have immediate health care needs.

Chart 1: ED Visits by Level of Urgency1, 2011

<table>
<thead>
<tr>
<th>Level of Urgency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-urgent</td>
<td>8%</td>
</tr>
<tr>
<td>(should be seen in 121 minutes to 24 hours)</td>
<td></td>
</tr>
<tr>
<td>Semi-urgent</td>
<td>35.5%</td>
</tr>
<tr>
<td>(should be seen in 61-120 minutes)</td>
<td></td>
</tr>
<tr>
<td>Emergent</td>
<td>10.7%</td>
</tr>
<tr>
<td>(should be seen in less than 15 minutes)</td>
<td></td>
</tr>
<tr>
<td>Urgent</td>
<td>42.3%</td>
</tr>
<tr>
<td>(should be seen in 15-60 minutes)</td>
<td></td>
</tr>
</tbody>
</table>


1 Accounts for adults ages 18 to 64 years old.
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 (Chart 2). 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.

When MHSA patients arrive at the ED, they 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 can remain in the ED for days until a bed can be found. Pediatric patients present an even greater placement challenge.

---

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

**Chart 2**

<table>
<thead>
<tr>
<th>Units of Hospitals</th>
<th>Freestanding Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>2005</td>
</tr>
<tr>
<td>2169</td>
<td>1784</td>
</tr>
<tr>
<td>662</td>
<td>458</td>
</tr>
<tr>
<td>1507</td>
<td>1326</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Behavioral Health-related Emergency Department Visits in Millions, 2005 – 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
</tr>
<tr>
<td>9.2</td>
</tr>
</tbody>
</table>

Over the past decade, the number of patient visits to the ED has increased by 19 percent (Chart 3). These increases were driven by an increase in the number of Medicaid beneficiaries and uninsured populations, 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. However, given that Medicaid beneficiaries are more likely to use ED services (Chart 4), the increased enrollment under the ACA could push up ED use even further, especially in expansion states.

At the same time care that is less urgent is shifting to other venues such as retail clinics and urgent care centers. The newest of these, retail clinics, now number in the thousands. Many partner with hospitals as a way to lower cost and manage the non-urgent cases that might have gone to the ED previously.

**WIDE RANGE OF CARE NEEDS REQUIRES EXTENSIVE RESOURCES**

Patients’ emergency needs vary greatly and require myriad hospital resources. While a child who has been injured in a fall may be sent home with stitches, a broken arm requires an X-ray; stomach pain may require an ultrasound, laboratory work and medication; and trauma 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 hospital ED can expect to see – and must be prepared to treat – many 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 more than 20 specialties and sub-specialities, 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 health care resources it has available to it.

**Demand for emergency access to care is rising.**

**Chart 3:** Emergency Department Visits in Millions, 2000 - 2013

[Bar chart showing ED visits from 2000 to 2013 with data points for each year.

**Medicaid beneficiaries use more ED care than other populations and their ranks are growing.**

**Chart 4:** Emergency Department Visits per 100 Population, 2011

[Table showing ED visits per 100 population for Medicaid, Medicare, Private Insurance, and Uninsured in 2011 with Medicaid having the highest visits per population and Private Insurance having the lowest.


Source: Centers for Disease Control and Prevention, National Hospital Ambulatory Medicare Care Survey: 2011 Emergency Department Summary.
Common patient conditions require a wide variety of resources to be available 24/7.

Chart 5: Example: Resource Needs for Common Condition

1. 60-year old patient comes to the ED with abdominal pain, nausea, and fever of 24 hours’ duration.

2. Nurse evaluates vital signs, current medications and prior history. Physical examination indicates patient is jaundiced, fever of 101°F, pulse rate is 100/min and blood pressure is 100/68.

3. ED physician evaluates patient and orders an abdominal ultrasound study from radiology and a liver function test and a white blood count test from lab.

4. Imaging and laboratory tests are consistent with an inflamed gall bladder (cholecystitis) and patient is admitted for overnight observation. IV fluids and antibiotics are ordered from pharmacy.

Full-service hospitals must be equipped to respond a wide range of conditions.

Chart 6: Number of ED Visits by Top 15 Reasons for Visit in Thousands, 2011

<table>
<thead>
<tr>
<th>Condition</th>
<th>Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal Pain</td>
<td>6,911</td>
</tr>
<tr>
<td>Chest Pain</td>
<td>5,521</td>
</tr>
<tr>
<td>Contusion</td>
<td>4,646</td>
</tr>
<tr>
<td>Acute Upper Respiratory Disorders</td>
<td>4,625</td>
</tr>
<tr>
<td>Spinal Disorders</td>
<td>4,260</td>
</tr>
<tr>
<td>Open Wound, Excluding Head</td>
<td>3,262</td>
</tr>
<tr>
<td>Cellulitis and Abscess</td>
<td>2,838</td>
</tr>
<tr>
<td>Fractures (Excluding Lower Limb)</td>
<td>2,745</td>
</tr>
<tr>
<td>Rheumatism (Excluding Back)</td>
<td>2,500</td>
</tr>
<tr>
<td>Headache</td>
<td>2,378</td>
</tr>
<tr>
<td>Urinary Tract Infection</td>
<td>2,342</td>
</tr>
<tr>
<td>Open Wound of Head</td>
<td>2,269</td>
</tr>
<tr>
<td>Arthropathies</td>
<td>2,206</td>
</tr>
<tr>
<td>Sprains and Strains of Neck</td>
<td>2,186</td>
</tr>
</tbody>
</table>

Source: National Hospital Ambulatory Care Survey: 2011 Emergency Department Summary Tables.
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 235 Level I trauma centers and 128 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

“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 nurse executive and vice president for patient care services, Barnes-Jewish Hospital, St. Louis, Mo.
The Challenges of Serving Rural America

Rural hospitals meet their challenges in a variety of ways. Copper Queen Community Hospital (CQCH), Bisbee, Ariz., provides 24/7 access to a wide range of services through telemedicine. CQCH is a 14-bed acute-care critical access hospital (CAH) situated in a geographically remote area of southern Arizona near the border with Mexico with a service area of approximately 2,500 square miles. CQCH has contractual telemedicine relationships with several tertiary care hospitals in Arizona. The programs and services include: trauma (AZ University Medical Center), neurology (Mayo Clinic), cardiology (Carondelet), cardio pulmonology (TMC/ Pulmonary Assoc. of So. Ariz.), ED burn (Grossman St Luke’s), and pediatrics (Banner Cardin Children’s Hospital). (Source: Copper Queen Community Hospital)

“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, Mont.

Ensuring 24/7 access to care for the 46.2 million Americans who live in rural communities represents a special challenge. 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.

America’s nearly 2,000 rural hospitals maintain varying levels of resources depending on community needs. The smallest rural hospitals, the nation’s 1,330 CAHs, can handle many emergency conditions. 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.

Patients who arrive at the ED with a condition requiring specialty consultation, procedures, diagnostics or intensive care not available at CAHs are evaluated, stabilized and subsequently transferred to another hospital to ensure their needs are met. Relationships are particularly important for small rural hospitals. 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.
The Safety-Net Role

Mercy Hospital in Oklahoma City formed the Health Alliance for the Uninsured to improve access to health care for the uninsured and underinsured in Oklahoma County. Since its inception in 2007, more than 30,000 patients have received primary care services with about 20 percent of these going on to receive diagnostic and specialty care. Clinics share a Web-based data system; patients receive medication through the Cooperative Central Pharmacy and pharmaceutical company programs; and a coordinated specialty referral program shortens wait times for care and avoids duplication of services. Partners include the area’s safety-net clinic, hospitals and the Oklahoma County Medical Society. (Source: AHA’s Community Connections, 2014.)

An estimated 42 million Americans had no health insurance coverage in 2014, even after the coverage expansions in the ACA. In 2014 Medicaid covered an estimated 77 million individuals, including 36 million children and nearly 11 million disabled people. This is more than triple the number the program covered in 1990 (Chart 9). Many of these individuals lack a regular source of health care and look to community hospitals as their medical safety net.

The number of Medicaid beneficiaries tripled between 1990 and 2014.


(1) Does not include CHIP enrollees.
(2) In 1997, the Other Title XIX category was dropped and the enrollees therein were subsumed in the remaining categories. Other Title XIX enrollees refers to others who received Medicaid benefits.
A UNIQUE OBLIGATION
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 their 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.

BROADER ROLE IN COMMUNITY
Hospitals also are a repository for many of the social ills facing communities, including poverty, homelessness and substance abuse. As such, hospitals provide a range of community services beyond their four walls, including health screenings, health fairs, community outreach, wellness and preventive care and Meals on Wheels (Chart 10).

For example, Suburban Hospital, Johns Hopkins Medicine in Bethesda, Md., served more than 11,000 residents in 2014 in an innovative health improvement initiative designed to decrease the incidence of cardiovascular disease through a team of registered nurses conducting health screenings, one-on-one risk factor modification counselling, chronic disease support groups and community health seminars.21

CONTINUING NEED
The need for safety-net services will continue even after the full effects of the ACA are felt. The CBO projects that there will still be more than 30 million uninsured people in 2024 and 93 million Medicaid beneficiaries.22 The accuracy of the projections will depend on how states continue to respond to Medicaid expansion and the outcome of the King versus Burwell Supreme Court case.

---

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

Chart 10: Percentage of Community Hospitals Offering Selected Community Services, 2013

Source: AHA Annual Survey. 2013 data for community hospitals.
Disaster Readiness and Response

On April 15, 2013, two bombs exploded near the finish line of the Boston Marathon killing three people and injuring an estimated 264 others. Limbs were lost, vital arteries severed, bones fractured and skin torn open or burned from the blasts’ heat. The explosions took place at 2:50 p.m., twelve seconds apart. Within minutes medical personnel had converted the runner’s first-aid tent into a mass casualty triage unit. Victims were dispersed to eight different hospitals around the city. Hospital personnel began activating emergency plans before the first victims even arrived. Some hospitals handled as many as 39 victims at once. Miraculously, all of those who were still alive when emergency personnel reached them survived.

One of the hospitals, Brigham and Women’s Hospital, credits its 78 large-scale disaster drills over the past eight years in its ability to respond. It received 31 victims, 28 of them severely injured with 12 requiring emergency surgery. (Source: Gawande, A., (April 17, 2013). Why Boston’s hospitals were ready. The New Yorker.)

Readiness is an imperative for America’s hospitals, one of the cornerstones of their essential commitment to safeguard the health of the public. As a vital community resource, hospitals are at the center of every emergency that our nation may confront from natural disasters to deadly diseases to biological warfare, terrorism and radiological and nuclear events.

While hospitals have always had disaster plans in place, the terrorist acts of 9/11, Hurricane Katrina, more extreme weather patterns across the nation and the threat of viruses like Ebola have increased our assessment of the likelihood of disaster and raised the bar for emergency preparedness.

PREPAREDNESS: AN IMPERATIVE FOR ALL HOSPITALS

The often unpredictable nature and timing of disasters requires all full-service hospitals to be capable of responding to a variety of potential events at any time. Hospitals spend a great deal of time and resources on preparedness activities, including developing, testing and refining disaster response logistics and clinical plans for various types of events (Chart 11). This enables hospitals to quickly organize staffing, call-in support, organize patient treatment plans and locations, procure and organize needed equipment and supplies, and coordinate with other facilities (Chart 12).
Hospitals in all regions must be prepared for a range of natural and manmade disasters.

Chart 11: Selected Recent U.S. Disasters

- **5/23/14** Isla Vista, CA
  - Stabbing and shooting rampage at local college kills 7, injures 13.

- **4/17/13** West, TX
  - Explosion at Texas West Fertilizer Company kills 70, injures 200.

- **9/12/14** Red Lion, DE
  - Motor coach overturns killing 3, injuring 47.

- **12/14/12** Newton, CT
  - Shooting at elementary school kills 28, injures 2.

- **4/15/13** Boston, MA
  - Bombing at Boston Marathon kills 3, injures 264.

- **4/26/14** Mayflower, AR
  - Tornado hits town killing 16, injuring 193.

- **5/20/13** Moore, OK
  - Tornado hits town killing 24, injuring 240.

- **1/24/14** Marysville, WA
  - Shooting at high school kills 4, injures 1.

- **5/26/14** Moore, OK
  - Tornado hits town killing 16, injuring 193.

- **4/12/14** Davis, OK
  - Tractor-trailer collides with bus killing 4, injuring 12.

- **9/12/14** Red Lion, DE
  - Motor coach overturns killing 3, injuring 47.

- **10/4/14** Bronx, NY
  - Metronorth train derailed killing 4, injuring 61.

- **12/1/13** Bronx, NY
  - Bombing at Boston Marathon kills 3, injures 264.

- **9/12/14** Red Lion, DE
  - Motor coach overturns killing 3, injuring 47.

- **4/15/13** Boston, MA
  - Bombing at Boston Marathon kills 3, injures 264.

- **12/14/12** Newton, CT
  - Shooting at elementary school kills 28, injures 2.

- **4/15/13** Boston, MA
  - Bombing at Boston Marathon kills 3, injures 264.

- **10/24/14** Marysville, WA
  - Shooting at high school kills 4, injures 1.

- **5/26/14** Moore, OK
  - Tornado hits town killing 16, injuring 193.

- **9/12/14** Red Lion, DE
  - Motor coach overturns killing 3, injuring 47.

- **10/4/14** Bronx, NY
  - Metronorth train derailed killing 4, injuring 61.

- **9/12/14** Red Lion, DE
  - Motor coach overturns killing 3, injuring 47.

- **12/14/12** Newton, CT
  - Shooting at elementary school kills 28, injures 2.

- **4/15/13** Boston, MA
  - Bombing at Boston Marathon kills 3, injures 264.

- **12/1/13** Bronx, NY
  - Bombing at Boston Marathon kills 3, injures 264.

- **9/12/14** Red Lion, DE
  - Motor coach overturns killing 3, injuring 47.

- **4/15/13** Boston, MA
  - Bombing at Boston Marathon kills 3, injures 264.

- **10/24/14** Marysville, WA
  - Shooting at high school kills 4, injures 1.

- **4/17/13** West, TX
  - Explosion at Texas West Fertilizer Company kills 70, injures 200.

- **12/1/13** Bronx, NY
  - Bombing at Boston Marathon kills 3, injures 264.

- **9/12/14** Red Lion, DE
  - Motor coach overturns killing 3, injuring 47.

- **4/15/13** Boston, MA
  - Bombing at Boston Marathon kills 3, injures 264.

- **10/24/14** Marysville, WA
  - Shooting at high school kills 4, injures 1.

- **4/17/13** West, TX
  - Explosion at Texas West Fertilizer Company kills 70, injures 200.

- **5/26/14** Moore, OK
  - Tornado hits town killing 16, injuring 193.

- **9/12/14** Red Lion, DE
  - Motor coach overturns killing 3, injuring 47.

- **10/24/14** Marysville, WA
  - Shooting at high school kills 4, injures 1.

- **4/17/13** West, TX
  - Explosion at Texas West Fertilizer Company kills 70, injures 200.

- **5/26/14** Moore, OK
  - Tornado hits town killing 16, injuring 193.

- **9/12/14** Red Lion, DE
  - Motor coach overturns killing 3, injuring 47.

- **10/24/14** Marysville, WA
  - Shooting at high school kills 4, injures 1.
Individuals who are in the medical profession, when they find themselves in these moments of responding to a disaster, I always believe they are at their best. This is what we do."

Terrie Sterling, COO, Our Lady of the Lake Regional Medical Center, Baton Rouge, La.

Hospitals annually make significant investments in disaster preparedness 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, some of whom lived 20-30 miles away, threw chainsaws in the back of their cars to cut away fallen trees they might encounter enroute. For many, these routinely half-hour trips took the better part of a day.

**Common Disaster Response Equipment and Supplies**

- Generators
- Communication systems
- Personal protective equipment
- Decontamination facilities
- Medical supplies and pharmaceuticals
- Disease surveillance systems
The Arrival of Ebola in the U.S.

Ebola represents a new challenge for preparedness requiring every hospital to have some level of readiness. Bellevue Hospital Center in New York City was ready for the challenge when a young doctor recently returned from treating patients in Guinea fell ill. The paramedics who transported him were dressed in protective suits. He entered the hospital through a rear door and was taken to a state-of-the-art isolation ward that was locked and guarded. Ultimately 100 workers were involved in his care, none subsequently got sick and the young doctor recovered. This response may be credited to the rigorous training of staff in how to detect, diagnose, isolate and properly treat Ebola. New York City Health and Hospitals Corporation estimates that preparing for Ebola across its 11 hospitals and caring for this one patient cost the system nearly $20 million. (Source: New York City Health and Hospitals Corporation)

“The world-class response mounted by New York City and Bellevue (Hospital) was not free, and the bottom line is local communities and local taxpayers should not foot the whole bill for handling an infectious disease that is a threat to the whole nation,”

Sen. Charles Schumer, D-N.Y.

The arrival of Ebola in the U.S. spurred a massive response as hospitals bolstered their preparedness for what has become an epidemic in Africa. The Centers for Disease Control and Prevention sought out hospitals to perform at one of three levels: treatment centers, assessment centers and frontline hospitals — each with its own level of recommended preparation. Depending on the hospital’s level, preparedness includes specific plans for dealing with a patient with suspected Ebola, training, exercises and drills, protocols for screening arriving patients for risk of Ebola, procedures to isolate suspected cases, designated teams to treat suspected or confirmed Ebola patients, securing personal protective equipment (PPE), and procedures for handling specimens and waste. Designated treatment hospitals also might need construction/renovation of space to meet required isolation standards, the purchase of equipment, more extensive staff training, and the development of treatment protocols. A designated treatment facility’s cost could run into the millions of dollars.

Treatment costs are high as well. Costs associated with treating an Ebola patient include staffing four to six caregivers to one patient, waste disposal, onsite laboratory services, additional PPE, security, ongoing training exercises and drills, and environmental cleaning and decontamination. Omaha’s Nebraska Medical Center estimates that it spent $1.16 million caring for its first two Ebola patients exclusive of $148,000 in revenue lost when nearby beds had to be closed off to accommodate a special Ebola isolation ward.23
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, 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 U.S. Bureau of Labor Statistics estimates that hospitals will need an additional 900,000 staff (Chart 13). In general the need for health care workers will grow, with hospitals competing with many other care venues for newly trained workers (Charts 14).

The health care system also will face a shortage of physicians. By 2025 there is expected to be a shortage of between 46 and 90 thousand specialist and generalist physicians (Chart 15). The physician supply imbalance already is being felt. In a recent survey, hospitals reported paying more frequently for physician on call coverage.

Demand for health care workers is rising.

**Chart 13:** Projected Employment Growth by Care Setting in Thousands, 2010 - 2020

- Offices of Health Practitioners: 1,391
- Hospitals: 878
- Home Health Agencies: 872
- Nursing and Residential Care Facilities: 822
- Outpatient, Laboratory And Other Ambulatory Care: 394


**Chart 14:** Projected Employment Growth by Occupation in Thousands, 2012 - 22

- Nursing Aides, Orderlies, and Attendants: 581
- Registered Nurses: 527
- Home Health Aides: 424
- Licensed Practical Nurses: 183
- Medical Assistants: 163

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 45 million, but there are 668 fewer hospitals with EDs to handle these visits (Chart 16).16

**DECLINING FINANCIAL SUPPORT**

The standby role of the hospital is not explicitly funded. Unlike fire and police departments, hospitals receive little funding to keep staff and space at the ready. Instead, the standby role is built into the cost structure of 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 difficulty supporting the standby role because of shortfalls in public payment (Chart 17) and the loss of volume to providers who don’t play the standby role.
Hospitals have been receiving less and less explicit financial support for disaster preparedness in recent years. Since 2002, the national Hospital Preparedness Program (HPP) has awarded approximately $4.8 billion to the states, certain cities and the US territories (Chart 18), much of which has been subsequently distributed to hospitals and other health care providers to develop and update their emergency preparedness and response capabilities. However, Congress’ authorized funding levels and annual appropriations for the HPP have significantly declined since the HPP began, falling by more than 50 percent over 13 years. Also, in recent years, hospitals have received only a small fraction of the HPP funds, with a significant amount being taken by the states, cities and US territories for their own administrative costs. Of the remaining amount, little has been awarded to the hospitals; rather, the majority is currently directed to regional health care coalitions and to other types of providers. Erosion of this financial support for hospital disaster preparedness at a time when the need for these services is growing will make it difficult to keep pace with ever-changing and growing threats faced by hospitals, health care systems and their communities.

Even in the recent Ebola crisis, hospitals that incurred extraordinary costs to prepare to care for Ebola patients may only receive funding to cover a portion of those costs, while some hospitals may not receive any funding. In December 2014, Congress appropriated $576 million for the Assistant Secretary for Preparedness and Response (ASPR) for Ebola response and preparedness activities, including reimbursing hospitals for their Ebola preparedness costs. Of this funding, ASPR has only allocated $194 million (34 percent) for HPP Ebola preparedness activities. Taking into consideration the states’ administrative costs, and the allocation required to go to the health care coalitions, hospitals may, in the end, receive less than half of the funds that Congress intended that they receive. Certain Ebola treatment centers recognized by their states and CDC will receive between $500,000 to $1 million – an amount significantly less than many have spent. States and cities will have the discretion to provide additional funding to other hospitals, including Ebola assessment hospitals, but, again, it will be capped at no more than $1 million, an amount well below what some have spent.

Federal and state governments traditionally provide funding to help hospitals that have an unusually large share of low-income populations through disproportionate share (DSH) adjustments to Medicare and Medicaid payments, direct appropriations, provider taxes and other mechanisms to fund safety-net services. But the overall under-funding 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, while coverage gains remain uncertain. Additional cuts to Medicare payments are likely and threaten the financial stability of hospitals as Congress seeks to cut the deficit.

**EQUALIZING PAYMENTS**

For several years some policymakers have proposed reducing rates for certain services provided in hospital outpatient departments (HOPDs) so that they are equal to those paid in physician office settings or ambulatory surgery centers (ASCs). 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. Implementing this policy could decrease HOPD revenue by $2.6 billion. Furthermore, large reductions in Medicare revenue would have an adverse effect on hospitals that provide ambulatory physician services to a disproportionate share of low-income patients, who may be more likely to use the HOPD as their primary source of care.

**LOSS OF PATIENTS TO OTHER CARE SETTINGS**

At the same time, full-service hospitals face a loss of patients as outpatient surgical and diagnostic procedures migrate to other care settings, including ASCs and physician offices. On a service-by-service basis, these settings can be less expensive because they do not have the added costs of standby capacity. In some cases, these lower costs are appropriately reflected in reimbursement systems (e.g., ASCs are paid less than HOPDs 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, as discussed above, 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.
Always There, Ready to Care: 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 will financing mechanisms need to be designed in order to support the standby role in the future?
- How can the standby role be financed in an increasingly competitive health care marketplace where payers want to pay the lowest price?
- 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 steps can be taken to promote greater access to and utilization of primary care among low-income vulnerable populations to improve their health status and reduce the need for ED care?

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

1 American College of Emergency Physicians, 2014 ACEP Polling Survey Results.
3 Congressional Budget Office (CBO), Medicaid Baseline Projections, April 2014.
4 CBO, Insurance Coverage Provisions of the Affordable Care Act—CBO’s April 2014 Baseline.
7 AHA Annual Survey, 2013 data for community hospitals.
9 AHA Annual Survey, 2013 data for community hospitals.
10 AHA Annual Survey, 2013 data for community hospitals.
11 National Trauma Data Bank, 2013.
12 American Burn Association, 2014.
15 AHA Annual Survey, 2013 data for community hospitals.
16 Centers for Medicare & Medicaid Services, as of November 25, 2014.
17 CBO, Insurance Coverage Provisions of the Affordable Care Act—CBO’s April 2014 Baseline.
18 CBO, Medicaid Spending and Enrollment Detail for CBO’s April 2014 Baseline.
20 CBO, April 2014 Medicaid Baseline.
21 AHA, Community Connections case study.
22 CBO, April 2014 Medicaid Baseline. CBO, Budget and Economic Outlook January 2015.
24 Association of American Medical Colleges, Physician Shortages to Worsen without Increases in Residency Training, 2012.
26 AHA Annual Survey, 2013 data for community hospitals.
27 The Office of the Assistant Secretary of Preparedness and Response, Hospital Preparedness Program, 2014.