



Prepared to Care

24/7



An issue briefing from the Arizona Hospital and Healthcare Association
focusing on Arizona's emergency departments

February
2007



Condition Report: The State of Arizona's Hospital Emergency Departments

Arizona's hospital emergency departments are overcrowded, understaffed and face myriad challenges. What will cure *their* ills? This document outlines the complex challenges EDs face as well as the steps hospitals are taking to improve emergency care and the solutions Arizona decision makers are considering.

Executive Overview

For many, hospital emergency departments (EDs) are the doorway to the healthcare delivery system. Arizonans know they can turn to a hospital ED and receive medical care from highly skilled healthcare professionals, working with specialized equipment. EDs are there to care for patients with a wide range of medical needs 24 hours a day, seven days a week. In Arizona, there were more than 2 million emergency outpatient visits in 2005, a 17 percent increase from the 1.7 million visits in 2004.¹ Like the patients they serve, Arizona's EDs and trauma centers are now themselves in need of care. Their primary symptom is overcrowding exacerbated by:

- Arizona's rapidly expanding population;
- lack of alternatives—or information about alternatives—to emergency services (particularly after hours);
- regulatory constraints;
- shortages of healthcare professionals; and
- a lack of available inpatient hospital beds.

These challenges, though prevalent throughout the healthcare delivery system, are more intense in Arizona's EDs where timely treatment is especially critical to patients. A study by the National Ambulatory Medical Care Survey found that among patients for whom triage information was available, 60 percent had a medical need considered emergent or urgent, meaning it required care within an hour.² Couple this with the numbers of non-emergent medical needs that are treated in the ED and it is no wonder that some question if a sudden widespread emergency, such as a pandemic or natural disaster, could dramatically impact EDs that are serving routine as well as emergency medical needs.

Prepared to Care 24/7: Arizona's EDs and Trauma Centers are hurting. What's *their* diagnosis?

As with any medical crisis, an accurate diagnosis starts with an evaluation of the contributing causes and underlying conditions. Consider challenges Arizona's EDs face:

Increased demand for services. Arizona's population is growing faster than any state in the nation.³ That growth is reflected in the increase in Arizona's outpatient ED visits, which soared from 46 percent 2001-05. Nationally, ED outpatient visits increased 8 percent during those same years.⁴

A mission and a mandate. Arizona's hospitals—by mission and mandate—treat all patients arriving at the doors of their EDs. As hospitals fulfill their missions to care for patients, they also are mandated by the Emergency Medical Treatment and Labor Act (EMTALA) to provide a medical screening exam to all patients, regardless of their ability to pay for that care. Under EMTALA, hospitals must provide patients with emergency medical conditions stabilizing treatment and/or an appropriate transfer.

An expanding population. According to the recently released study, *The Economic Impact of Arizona's Hospitals on the State & its Counties*, from 2007-11 Arizona's hospitals plan to add 2,900 inpatient beds, a 20 percent increase from current capacity. These inpatient hospital beds are in addition to the 1,300 added from 2000-06.⁵

Regulations that increase ED backlogs. Hospital state and federal regulations require that hospitals place patients in specific and appropriate units, which increases the complexity of locating inpatient beds for patients. According to a 2006 report by the AzHHA's Emergency Department Crowding and Hospital Overcapacity Work Group, hospitals communicating ED "saturation" status consistently report a lack of ICU beds as the most significant factor for saturation.⁶

The domino effect of ED diversion. Seasonal factors in some Arizona areas can lead to a diversion "domino effect" where one by one, EDs are filled to capacity and ambulances must divert to the next available ED. In 2006, Maricopa County EDs were on diversion status 6.4 percent of the time, which is a drop from the previous year.⁷ In many Arizona communities, diversion is not an option as hospitals serve as sole providers without the option of diverting to nearby facilities.

Consumers seeking primary care can exacerbate ED crowding. A study conducted by the ASU Center for Health Information and Research (CHIR) found that almost half of the visits to 11 Maricopa County hospitals were for non-urgent care.⁸

Frequent visitors who return to the ED repeatedly. A small number of patients account for a disproportionate number of ED visits each year. The ASU CHIR study found that 5 percent of the ED population studied accounted for 17 percent of all ED visits. These frequent visitors averaged six visits per year.⁹

Shortages of on-call specialists in the ED. The American College of Surgeons reports that there is a growing shortage of surgeons available to cover EDs and trauma centers. In some specialties, this shortage has reached crisis proportions.¹⁰

Shortages of physicians, nurses & other healthcare professionals.

Workforce shortages—exacerbated by Arizona’s growing population—continue to plague the state’s healthcare delivery system, for example, there are shortages of:

- **Registered Nurses.** Arizona has 681 employed registered nurses (RNs) per 100,000 population compared to the national average of 825 employed RNs per 100,000 population, according to preliminary figures published by the Health Resources and Services Administration (HRSA) in 2006.
- **Physicians.** In 2005, there were 219 physicians for every 100,000 Arizona residents, much lower than the predicted HRSA national physician per 100,000 population ratio of 293/100,000.¹¹

Trauma centers that face financial risk. Trauma centers provide a vital, life-saving service to our communities, yet they lose millions of dollars each year providing this care. In 2005, Arizona’s seven Level 1 trauma centers reported a total of \$75.3 million in unrecovered costs.¹²

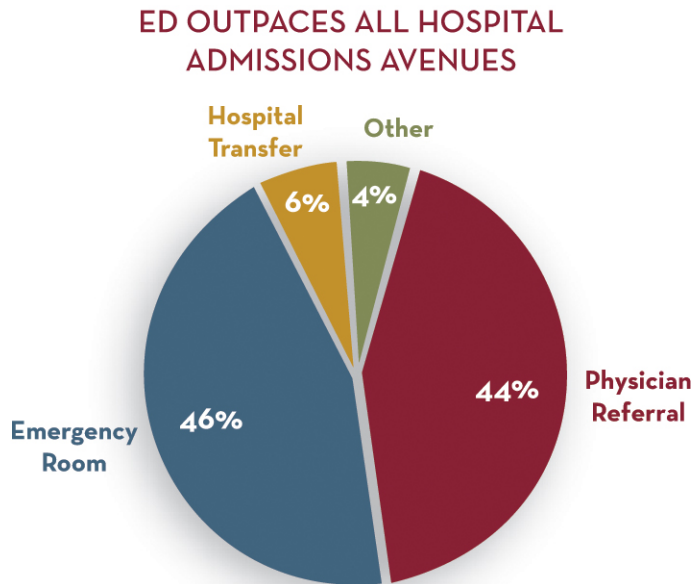
An aging population that has more aches and pains. Research shows that older adults have more complex emergency care needs and make more visits to the ED than their younger counterparts. Baby boomers, who begin turning 65 in less than five years, are likely to have a significant impact on the demand for emergency services.¹³

The situation (emergency) room

A subtle change in terminology tells a big part of the story. What were once referred to as “emergency rooms” are now called “emergency departments” or EDs. The term “room” implied that the number of cases coming in the door could be treated in a relatively small area. But that is no longer the case. For Arizona’s hospitals, the doors to the ED have become more like floodgates, a situation that mirrors a national trend. According to the American Hospital Association (AHA), ED outpatient visits nationally increased 8 percent from 2001-05, while AHA statistics show that Arizona ED outpatient visits soared 46 percent.¹⁴

Arizona hospitals are striving to meet the healthcare needs of their communities by constructing new and expanding existing facilities. According to a study conducted by Arizona State University (ASU) W.P. Carey School of Business L. William Seidman Research Institute, the state’s hospitals added 1,300 inpatient beds from 2000-06, or 9 percent of total capacity in 2006. From 2007-11, Arizona’s hospitals will add an additional 2,900 inpatient beds or 20 percent of the state’s current inpatient bed capacity.¹⁵

Although many of Arizona’s hospitals are expanding and constructing new facilities, the current lack of inpatient hospital beds often forces hospitals to “board” patients in hallways to await hospital admission. The Institute of Medicine (IOM) reports that it is not uncommon for some patients to wait 48 hours or more for an inpatient bed to become available. Additionally, patients awaiting Intensive Care Unit (ICU) beds must be staffed at the required nurse to patient ratio of 1:2 in the ED as they would be in ICU. While this is the nationally accepted standard of care, it also further heightens the need for a solution to hospitals’ ED capacity issues.



Yes, a bed is available, but it’s not the *right* bed Arizona’s hospitals recognize that ED crowding is no longer just an ED issue. Consider, for example, that in 2005, 46 percent of all patients admitted to Arizona hospitals came through the ED.¹⁶ For these patients, it’s not just a matter of finding an available inpatient bed; it’s a matter of finding the *right* bed. A female, for example,

cannot share a room with a male patient. An adult cannot be admitted to a bed licensed for pediatric care. A male, of course, cannot be admitted to a bed designated for obstetrics and gynecology.

According to a 2006 report by the Arizona Hospital and Healthcare Association’s (AzHHA’s) Emergency Department Crowding and Hospital Overcapacity Work Group, hospital crowding is impacted by the acute medical needs of patients. Hospitals communicating ED “saturation” status consistently report a lack of ICU beds as the most significant factor for this saturation. The report states, “As more and more hospital resources are directed towards providing care to ICU patients, there are fewer resources available to provide care to other hospital patients.”¹⁷

Hospitals diligently pursue strategies that improve patient flow and expedite the turnover of hospital beds. For example, many Arizona hospitals are:

- employing “bed czars” to identify ways to improve patient flow as well as to expedite the turnover of hospital beds;
- providing areas for discharged patients to wait for their transportation so they may vacate their rooms while being monitored by healthcare professionals;

- creating mobile admission units that go to patients;
- working with physicians to schedule patient rounds that promote more efficient bed turnover and discharges earlier in the day;
- creating fast-track ED sections to care for non-emergent maladies, such as colds and the flu;
- spreading out the times of scheduled surgeries in collaboration with physicians; and
- utilizing technological resources, such as electronic bed boards to provide real-time information.

The doctor is(n't) in

Compounding the overcrowding in EDs is the critical shortage of physicians of all types in Arizona, a factor that limits the availability of on-call physician specialists. In 2005, there were 219 physicians for every 100,000 Arizona residents, much lower than the predicted HRSA national physician per 100,000 population ratio of 293/100,000. And the situation in the state's rural communities is even worse, given the fact that approximately 86 percent of Arizona physicians practice in either Maricopa or Pima Counties.¹⁸ Across Arizona, the shortage of physicians was estimated to be 2,218 in 2005.¹⁹

It's no surprise that the physician shortage is having a serious impact on Arizona's EDs. More than half of the state's EDs report that they need on-call specialists, including neurosurgeons, hand surgeons, vascular surgeons, plastic surgeons, ENT specialists and gastroenterologists.²⁰ Further, the specialists needed to care for serious injuries and life threatening emergency medical conditions are often not available at some hospitals. These physicians most often cite liability concerns when they choose not to practice in an ED setting.²¹ These liability concerns arise from the fact that it can be far more challenging to treat a patient in an emergency setting where there is no comprehensive knowledge of the patient's history and no immediate access to their medical records. According to the American College of Surgeons, a significant number of surgeons have been sued by patients first seen in the ED. Some physicians are even offered discounts on their liability coverage if they limit or eliminate their ED on-call availability.²²

Widespread Shortage of Healthcare Professionals

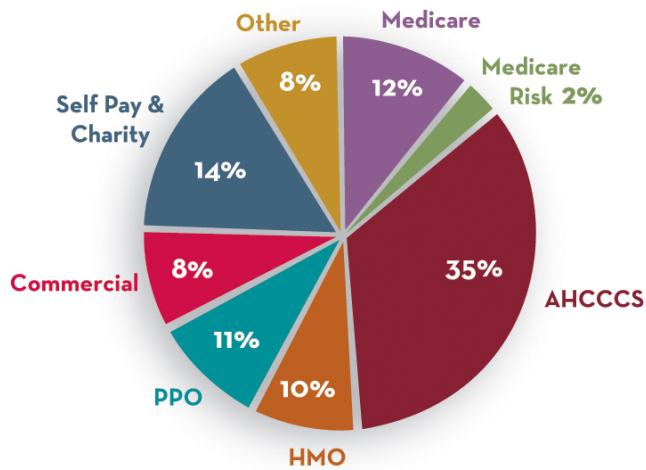
The physician shortage is not the only shortage of healthcare professionals Arizona faces. Arizona has 681 employed registered nurses (RNs) per 100,000 population compared to the national average of 825 employed RNs per 100,000 population.²³

U.S. EMERGENCY CARE SYSTEMS AT "SERIOUS RISK" FOR CRITICAL STAFFING SHORTAGES

- ▶ **worsening shortages of RNs;**
- ▶ **expanding urban and rural gaps in the supply of board-certified emergency medicine physicians; and**
- ▶ **growing difficulties in retaining emergency medical technicians (EMTs).**

Source: The Emergency Care Workforce in the U.S. published by the Center for Health Workforce Studies (CHWS), a not-for-profit research organization.

WHAT IS THE ED PAYOR MIX?



A mission & a mandate

For the nearly 1 million Arizonans who have no healthcare coverage, the ED may be seen as the only place to turn for medical care, whether their needs are urgent or not. It is the mission and mandate of hospitals to serve these and all patients. In 1986, Congress enacted the Emergency Medical Treatment and Labor Act (EMTALA) to ensure public access to emergency services

regardless of ability to pay. Under EMTALA, patients coming to an ED are entitled to a medical screening exam to determine if they have an emergency medical condition. Under EMTALA, patients with emergency medical conditions must be provided stabilizing treatment and/or an appropriate transfer. So while these individuals may be reluctant to visit a clinic or physician's office due to a lack of healthcare coverage, they are guaranteed a medical screening at a hospital.

A study of 11 Maricopa County hospital EDs conducted by the Arizona State University Center for Health Information & Research (CHIR) found that uninsured patients represented 17 percent of the ED visits in the hospitals studied.²⁴ These figures are comparable to those gathered by AzHHA from the Arizona Department of Health Services (DHS) (see *What is the ED Payor Mix?*).

Is it a true emergency?

Many patients entering the doors of the ED do not have true emergencies. The CHIR study found that nearly half of ED patients seen from July 2004 to June 2005 were there for non-emergent health issues such as a headaches, backaches or colds. The study's findings demonstrate that EDs are being utilized by patients who could be receiving care in less expensive settings.²⁵

Even patients who have insurance may turn to the ED in the evening, on weekends or when their physicians are not available. Some physicians may inadvertently compound the problem by referring patients to the ED for tests and procedures that can't be performed in the office setting. Interestingly, Mondays and Tuesdays are the second busiest days in Arizona's EDs after Sunday.²⁶ One reason may be that people who become ill over the weekend can't get in to see their family physician on Monday as they had hoped. Such information points to the need for additional primary care physicians and services as well as extended hours of care.

The winter flu season also perpetuates ED crowding. While high-risk patients, such as the elderly and those with compromised immune systems, do have valid reasons for visiting the ED when they contract the flu, other adults who do not have these health challenges would be better served in other settings. However, physician shortages and limited hours of operation hamper people receiving care in an office, clinic setting or urgent care setting.

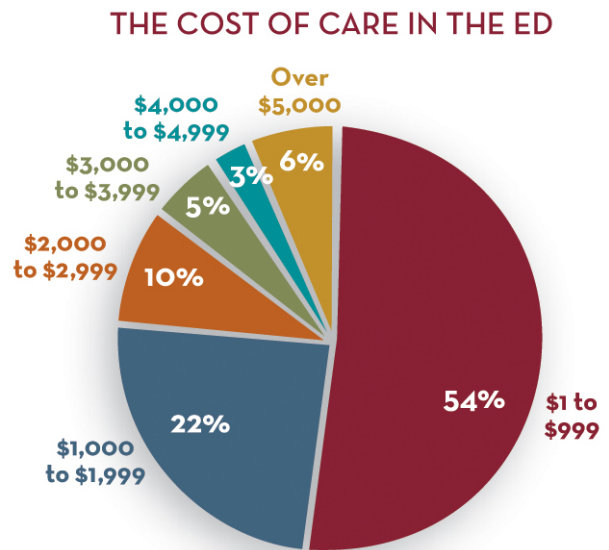
The anticipated boom in our aging population

Healthcare professionals and policy makers alike are bracing for the impact of the aging baby boomer population on our healthcare system. Baby boomers born between 1946 and 1964 will turn 65 between 2011 and 2029. It is projected that by the year 2030, nearly one of every five Americans will be 65 or older.²⁷

According to The Center for Health Workforce Studies, older adults need different types of emergency services than younger adults or children. Chronic conditions such as diabetes, hypertension, heart disease and cancer are most likely to bring older adults to emergency departments.

The U.S. Census Bureau reports that about 80 percent of seniors have at least one chronic health condition and 50 percent have at least two. In addition, the complexity of their medical histories and medication regimens as well as the possibility of age-related cognitive conditions can make their care more challenging.

However, the CHIR study found that the 11 EDs studied were more likely to be filled with a younger population (see *ED Visits By Age*).



Contributing to crowding: The impact of frequent ED visitor

Frequent users also contribute to overcrowding in EDs. The CHIR report stated that approximately 5 percent of the ED population accounted for 17 percent of all ED visits. While these frequent ED users averaged six visits per year, their actual usage ranged from four visits to 92 visits per year.²⁸

Additionally, this population was more likely to visit the ED for non-emergent conditions.

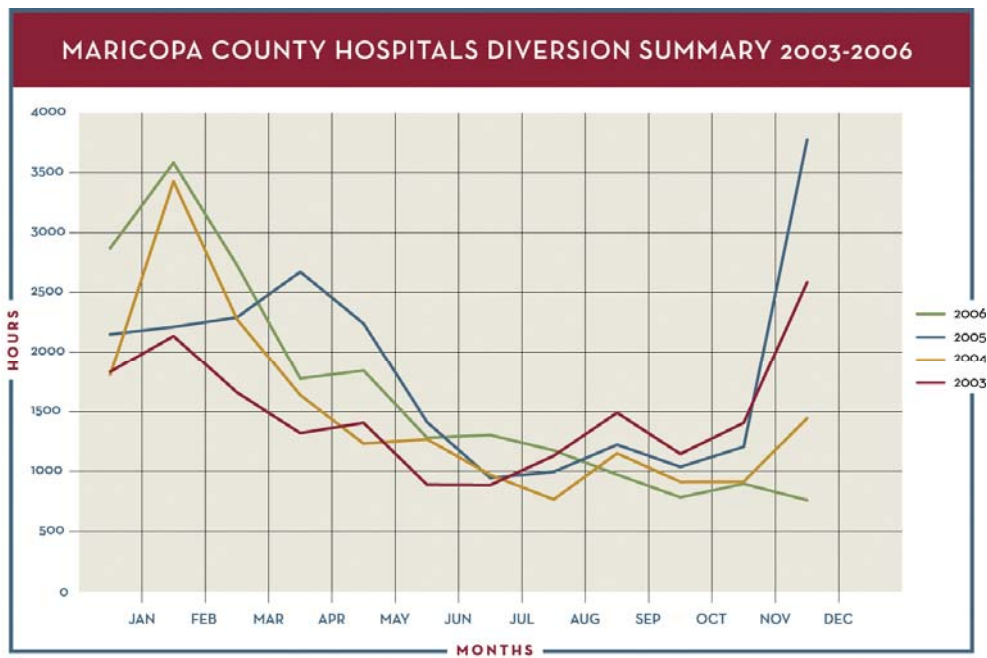
What drives these people to the ED?

- **Lack of coverage.** Frequent users were more likely to have gaps in insurance coverage or have switched between private and public health insurance coverage during the year.
- **Behavioral health issues.** Twenty-five percent of frequent ED users had diagnosed behavioral health conditions.
- **Chronic health conditions.** People with chronic conditions such as asthma are finding their way to the ED. Further complicating the situation is the fact that these frequent users often choose to visit many EDs rather than the same one, further fragmenting their healthcare.²⁹

ED VISITS BY AGE	
YEARS	%
0-17	26%
18-25	15%
26-40	24%
41-55	17%
56-64	5%
65+	12%

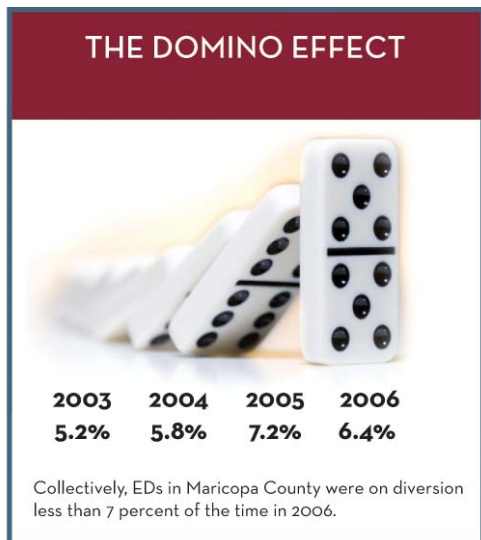
Source: Emergency Department Visits: A report to the Maricopa County Community from Arizona HealthQuery, a Community - University Partnership, Center for Health Information & Research, Arizona State University Fulton School of Engineering, School of Computing and Informatics, October 2006.

The diversion dilemma & the domino effect



As the following graph demonstrates, ED diversion dropped dramatically in 2006, but is still at higher levels than in previous years. The drop is attributed to the opening of new hospitals and the implementation of effective throughput strategies.

Crowded EDs also have led to ambulance diversion. Diversion occurs when ambulances arriving at an ED already filled to capacity are diverted to another ED. An average of once every minute in this country, an ambulance carrying an emergency patient is diverted to an ED that is farther away. Healthcare providers are concerned about such delays to patients delivering medical care. Also, the extra distance reduces the amount of time that particular ambulance is available to transport other patients.



The AHA reported that in 2004, nearly half of all hospitals and close to 70 percent of urban hospitals diverted patients at some time during the year. In 2006, Maricopa County EDs were on diversion status 6.4 percent of the time.³⁰ Seasonal factors in Arizona often lead to a diversion “domino effect” where one by one EDs are filled to capacity and ambulances must divert to the next available ED.

Preparing to care during a disaster

Recent disasters such as the devastation caused by Hurricane Katrina continue to demonstrate the important role that emergency departments play in their communities. While Arizona’s hospitals have clearly defined disaster plans in place and stage practice drills as part of those plans, it is difficult to project the true impact of an epidemic, terrorist attack or other disaster on Arizona’s already over-burdened emergency services capabilities.

Trauma centers face their own emergencies

Arizona’s trauma centers provide a vital service to the community by being staffed and equipped to offer immediate critical care and surgical treatment 24/7 to victims of automobile and motorcycle accidents, fires and other life-threatening events. Studies show that individuals who have traumatic injuries are much more likely to survive if they can reach a trauma center within “the golden hour,” defined as the first hour after their injury. In 2005, 21,662 cases were treated at Arizona’s trauma centers, and more than 93 percent of these patients survived.³¹

The cost of providing vital trauma coverage around the clock, however, is extremely high. The Arizona Department of Health Services requires that Level 1 trauma centers meet very rigorous standards for staffing, clinical capabilities, qualifications, facilities and resources.

In 2005, Arizona’s seven Level 1 trauma centers reported a total of \$75.3 million in unrecovered costs.³² These costs include the need to have trauma surgeons, anesthesiologists, orthopedic surgeons, plastic surgeons and emergency physicians in-house around the clock (rather than on call). Patient volume increased significantly at Arizona’s trauma centers – 46 percent from 2000 to 2005.³³

More solutions to the ED challenge

Arizona’s healthcare providers face myriad challenges in resolving the ED overcrowding situation. Below is a summary of additional ways in which the hospital community is addressing those challenges.

Preventing & educating AzHHA is working with other community groups to encourage people to get vaccinated for the flu as a way of preventing visits to the ED during the busy winter season. Those groups include: ADHS, Arizona Medical Association (ArMA), The Arizona Partnership for Immunization (TAPI), Community Health Clinics, Community Information & Referral, County Health Departments and the Urgent Care Association. Thanks to a \$75,000 grant from Governor Napolitano’s Emergency Health Fund, television commercials are airing that educate Arizonans on how to use the ED and encourage people to stay healthy by getting the flu vaccine and using other stay-healthy strategies (e.g., handwashing).



Supporting medical liability reform. As noted previously, it's both the mission and the mandate of hospitals to provide a medical screening to all patients who arrive at their doors of their EDs. Yet, ED doctors, on-call physicians and other providers are concerned about medical liability lawsuits that arise from the ED, where physicians may not have ready access to patients' medical records and there is no prior physician-patient relationship. In 2007, the medical community—hospitals and physicians—are supporting SB 1032—Burden of Proof; Emergency Treatment. This legislation would raise the burden of proof to “clear and convincing evidence” for medical malpractice cases against hospitals and healthcare professionals, including on-call physicians, who provide emergency services to patients who enter a hospital through its emergency department.

Expanding access to healthcare services for children. People who have access to ongoing medical care and preventive healthcare services are less likely to seek emergency services for routine care. Arizona's hospitals strongly support Governor Janet Napolitano's proposal to expand KidsCare to include children under age 19 in families with incomes below 300 percent of the federal poverty level.

Addressing Arizona's shortage of healthcare professionals. In 2005, Arizona's legislature passed *Arizona's* Partnership for Nursing Education (APNE), which is providing \$20 million over five years to double the number of nurses graduating by 2010. The Association is working at the federal level to establish *America's* Partnership for Nursing Education, with the goal of providing matching funds to support *Arizona's* Partnership for Nursing Education. *Arizona* APNE will meet its goal with the federal support.

According to a 2006 survey conducted by AzHHA, 40 of the state's hospitals spent more than \$25 million to graduate more healthcare professionals, advance healthcare education and support the state's healthcare education programs. This 43 percent response rate does not reflect the efforts of all Arizona hospitals, which would be a considerably larger sum. AzHHA and its member hospitals also are supporting the following measures being considered by the Legislature:

- Northern Arizona University's efforts to secure a \$4 million appropriation to expand their health professions programs throughout the state.
- University of Arizona College of Medicine's request for an appropriation of \$6 million for the next phase of the downtown Phoenix campus and a \$1.5 million appropriation for the University of Arizona's Department of Pharmacy, as well as Arizona State University's request for an appropriation of \$2 million for the Department of Biomedical Informatics.

- The governor's proposal to increase funding for graduate medical education (GME) by \$3 million in FY 2008 to create additional residency positions sponsored by rural hospitals (located in communities with a population of 500,000 persons or fewer) and by urban hospitals with programs that include a rural rotation.

Endnotes

¹ *AHA Hospital Statistics* © 2007, Health Forum LLC, an affiliate of the American Hospital Association.

² Centers for Disease Control/National Center for Health Statistics, 2004 National Hospital Ambulatory Care Survey, [www.cdc.gov/nchs.gov].

³ United States, U.S. Census Bureau, 2006.

⁴ *AHA Hospital Statistics* © 2007, Health Forum LLC.

⁵ *The Economic Impact of Arizona's Hospitals on the State & its Counties*, Arizona State University W.P. Carey School of Business, L William Seidman Research Institute, January 2007.

⁶ *Prepared to Care: 24/7, Trauma Center Funding*, Arizona Hospital and Healthcare Association, 2007.

⁷ EMSsystem, LLC™, January 2007.

⁸ *Emergency Department Visits: A report to the Maricopa County Community from Arizona HealthQuery, a Community – University Partnership*, Center for Health Information & Research, Arizona State University Fulton School of Engineering, School of Computing and Informatics, October 2006.

⁹ *Emergency Department Visits: A report to the Maricopa County Community from Arizona HealthQuery, a Community – University Partnership*.

¹⁰ *A Growing Crisis in Patient Access to Emergency Surgical Care*, American College of Surgeons, Division of Advocacy and Health Policy, June 2006.

¹¹ United States, Department of Health & Human Services, Health Resources & Services Administration, 2006.

¹² *Prepared to Care: 24/7, Trauma Center Funding*.

¹³ *The Emergency Care Workforce in the U.S.*, Center for Health Workforce Studies, University at Albany School of Public Health, August 2006.

¹⁴ *AHA Hospital Statistics* © 2007, Health Forum LLC.

¹⁵ *The Economic Impact of Arizona's Hospitals on the State & its Counties*.

¹⁶ *A Review of Arizona Hospitals*, Arizona Hospital and Healthcare Association, July 2006, Information provided by the Arizona Department of Health Services from the 2005 Inpatient & Emergency Department Data Tapes.

¹⁷ Arizona Hospital and Healthcare Association Emergency Department Crowding and Hospital Overcapacity Work Group, Recommendations for Model Hospital Disaster Plan Elements and Community Response, June 2006.

¹⁸ *The Arizona Physician Work Force Study Part II: 1994-2005*, Center for Health Information & Research, Arizona State University Fulton School of Engineering, School of Computing and Informatics.

¹⁹ *The Arizona Physician Work Force Study Part II: 1994-2005*.

²⁰ *Responding to Arizona's Emergency Care Crisis: SB 1351 – Burden of Proof; Emergency Treatment*, report sponsored by Arizona College Physician Work Force Study Part II: 1994-2005. of Emergency Physicians, Arizona Emergency Nurses Association, Arizona Medical Association, Arizona Nurses Association and Arizona Osteopathic Medical Association.

²¹ *A Growing Crisis in Patient Access to Emergency Surgical Care*, American College of Surgeons, Division of Advocacy and Health Policy, June 2006.

²² *Prepared to Care: 24/7, Trauma Center Funding*.

²³ United States, Department of Health & Human Services, Health Resources & Services Administration, 2006.

²⁴ *Emergency Department Visits: A report to the Maricopa County Community from Arizona HealthQuery, a Community – University Partnership*.

²⁵ *Emergency Department Visits: A report to the Maricopa County Community from Arizona HealthQuery, a Community – University Partnership*.

²⁶ Arizona Hospital and Healthcare Association Emergency Department Crowding and Hospital Overcapacity Work Group.

²⁷ *65+ in the United States: 2005*, U.S. Census Bureau, December 2005.

²⁸ *Emergency Department Visits: A report to the Maricopa County Community from Arizona HealthQuery, a Community – University Partnership*.

²⁹ *Emergency Department Visits: A report to the Maricopa County Community from Arizona HealthQuery, a Community – University Partnership*.

³⁰ EMSsystem, LLCTM, January 2007.

³¹ State of Arizona, Arizona State Trauma Registry, 2005.

³² *Prepared to Care: 24/7, Trauma Center Funding*.

The Arizona Hospital and Healthcare Association's
Investment in a Healthy Arizona

OUR MISSION

To provide leadership on issues affecting the delivery, quality, accessibility and cost effectiveness of healthcare in Arizona. AzHHA accepts and shares in the responsibility for improving the health status of the people of Arizona.

OUR VISION

AzHHA envisions a society of healthy individuals and provides the leadership essential to attain this goal.



Arizona Hospital and Healthcare Association
2901 North Central Avenue, Suite 900
Phoenix, Arizona 85012-2729
602-445-4300
www.azhha.org