Emerging Healthcare Issues — Overview

The following report gives a brief overview of the following emerging healthcare issues:

- Emergency preparedness
- Health issues related to war
- Hearing loss
- Electronic medical records
- Aging population

Emergency Preparedness

Disaster preparedness is broad in scope, requiring communities to be prepared for not only natural disasters, accidental events, and disease outbreaks, but also terrorist attacks involving our air, food supply, or water supply. Each has the potential to affect a significant number of people in our community. Since the gross failure of disaster response following Hurricane Katrina in August of 2005, the worst natural disaster in United States history, America’s attention has been drawn to disaster preparedness. Some of the emerging issues include:

- Ability to respond to emergencies with an adequate number of well-trained staff capable of handling whatever disaster situation occurs, ranging from wildfires to terrorist attacks. These categories include not only public health and first responders, but also community medical professionals ranging from primary care physicians and nurses to ancillary staff such as radiological and laboratory technologists.
- Protecting first responders, physicians, nurses and hospital ancillary personnel from possible injury and death associated with exposure to biological, chemical or radiological events
- Pandemic Influenza preparedness including surveillance of severe acute respiratory syndrome (SARS) and avian influenza
- Increased use of technologic tools such as geographic information systems (GIS) to locate the most vulnerable populations such as those in nursing homes, and reverse 911 to notify residents in select geographic areas of the need for evacuation. Both of these technologies were used during the October 2007 fire storms in San Diego County.
- Stockpiling antibiotics as a countermeasure to bioterrorism events

These issues impact the entire community and are coordinated locally by the County of San Diego Health and Human Services Agency in cooperation with local hospitals, clinics and the San Diego County Medical Society. These programs are funded by an annual $1.8 million allocation by the County of San Diego in addition to a variety of federal grants (Bioterrorism Preparedness 2006).
Health Issues Related to War

During the past 50 years, the U.S. has been involved in four major wars. With each war, there have been long-term health issues impacting the soldiers and veterans.

**Vietnam War** – Veterans from this war have been plagued by long-term consequences of exposure to herbicides such as Agent Orange. Under Congregational mandate, the Institutes of Medicine have studied the health impacts of Agent Orange and published numerous reports profiling the health effects.

**Gulf War** – Veterans from this war have been troubled by exposures to various agents such as vaccine, herbicides, radioactive materials, sarin nerve gas, benzene and other solvents. Known as the “Gulf War Syndrome”, there are a variety of unexplained illnesses reported by Gulf War veterans including fatigue, musculoskeletal pain, cognitive problems and skin rashes and diarrhea. The Veterans Affairs Office (VA) has been mandated by law to continue studying the health consequences of military service in the Gulf War.

**Iraq and Afghanistan Wars** – As of December 2006, more than one million active-duty military personnel and over 400,000 reservists have been deployed to either Iraq or Afghanistan. During this period, there were 3,000 casualties and 22,834 wounded in action (Goldberg 2007).

Since the beginning of these wars, 690,000 personnel have either left the military or are now eligible for VA care as reservists. The VA has subsequently seen a total of 229,900 patients from these wars (Goldberg 2007). Based on Congressional Budget Office testimony given before the U.S. House of Representatives, some of the most significant emerging health issues facing our returning war veterans include:

- Mental health problems such as post-traumatic stress disorder, which has been diagnosed in 17% of the 229,000 Iraq and Afghanistan wars veterans seeking VA care since 2002
- Amputations – 792, an amputation rate of 3.3% of all wounded military personnel
- 1,950 Traumatic brain injury diagnoses, a rate of 8.2% of all wounded military personnel

The VA San Diego Healthcare System reports that as of July 1, 2007, 751,273 Iraq or Afghanistan veterans have separated from the military nationally and 35% of those have obtained health care from a VA. Based on these numbers, there may be as many as 21,971 Iraq or Afghanistan veterans in San Diego, of which 7,700 are currently enrolled for VA health care from the VA San Diego Healthcare System (VA 2008).

While these health issues are not necessarily unique to the current wars, the ability of the Department of Defense and the VA healthcare systems to effectively care for these wounded veterans long-term is emerging as a critical concern. According to a recent Congressional Research Service report (Panangala 2006), several major issues facing the VA include:

- Improving the transition of injured veterans moving from active duty into the VA healthcare system
- Improving mental healthcare services to veterans
- Funding the growing demand for veteran healthcare services
Hearing Loss

Awareness that noise-induced hearing loss is preventable is not new; however, the widespread use of iPods, over 40 million sold since 2001, presents a major challenge to healthcare providers. According to the American Speech and Hearing Association, both the amount of noise and the length of time one is exposed to the noise determine the ability to damage hearing (ASHA 2007). Noise levels are measured in decibels (dB) and the higher the decibel level, the louder the noise. Sounds louder than 80 decibels are considered potentially hazardous.

According to the National Institute on Deafness and Other Communication Disorders (NIDCD), almost 28 million Americans have hearing loss. Ten million Americans have suffered irreversible noise-induced hearing loss (ASHA 2007). Very little has been documented in terms of noise-induced hearing loss associated with long-term use of handheld stereos such as iPods and MP3 players. Brian Fligor, ScD, director of Diagnostic Audiology at Children's Hospital Boston, reports that recent studies of headphone and earbud volume found that listeners could suffer hearing loss if they regularly listen for just one hour at volume settings above six on a scale of one to 10. The study did find, however, that safe listening levels with portable music players such as the iPod, MP3 and Sony Walkman for one hour a day at about 60% volume was safe (Fligor 2004).

Electronic Medical Records

The continued reliance by many healthcare providers on paper-based methods of storing and communicating patients’ health information is felt by some to be antiquated, yet results of a 2005 survey by the CDC’s National Center for Health Statistics found only 23.9% of office-based physicians reported using full or partial electronic medical records (EMR) (Burt 2005). This lack of widespread use of EMR is felt to be the result of many significant barriers including cost, perceived value, lack of standards-based systems that can interface with each other in and out of office systems, need for physicians to change their workflow and retrain staff, data security and effort and complexity involved in changing from a paper-based system that contains thousand of files (Jackson 2004).

A recent study related to the adoption of EMR by physicians, group practices and hospitals carried out by The George Washington University and funded by the Robert Wood Johnson Foundation identified that current information available regarding the adoption of EMR is limited by inconsistencies in measuring the adoption and implementation of EMR. Unanswered questions focus on what EMR functions are being implemented and what impact EMR is having on the quality and cost of care. Without consistent and accurate measures of EMR, any evaluation of the impact of EMR will be meaningless.
Aging Population

Possibly the most significant emerging issues related to the elderly population are its size and the economic effects this population will have on healthcare. According to the U.S. Census Bureau, in 1900, there were three million people living in the U.S. ages 65 or older, accounting for 4.1% of the total population. At the end of 2006, the number of persons in the U.S. ages 65 or older had increased to over 35 million, or 12.1% of the population (U.S Census Bureau 2007). As the baby boomers age over the next 25 years, this number is expected to double to 70 million.

This growing population will have a tremendous impact on the demand for healthcare and social services. Issues include:

- **More chronic illness** – Currently, an estimated 80% of older adults have at least one chronic condition and 50% have at least two (CDC 2007).

- **Increased use of healthcare services** – Older adults consume more ambulatory care, hospital services, nursing home services and home health services than young people (U of A 2006).

- **Cost of healthcare** – Projected to increase 25% by 2030 (CDC 2007).

- **Demand for health workers** – Providing healthcare services to the elderly, especially those with chronic conditions, will be challenging considering the current shortage of nurses and the growing need for people trained as geriatric specialists (U of A 2006).

One of the few known ways to address the effects of the service demands and accompanying healthcare costs is preventing health problems among this population to the greatest extent possible. Some of the strategies specifically targeting older adults include (CDC & Merck 2007):

- Promoting healthy lifestyle behaviors including increasing physical activity, eating a healthy diet and not smoking

- More early detection of disease through increased coverage of screening by Medicare

- Increasing annual immunization of influenza among those ages 65 or older

- Injury prevention by developing and implementing programs designed to reduce falls among the elderly, including exercises to increase leg strength and balance, medication management, vision care and other activities designed to improve the safety of the home environment.

- Increasing health literacy in the area of self-management techniques older adults can use to reduce the pain and costs of chronic disease.
References


Brian Fligor, ScD, director of Diagnostic Audiology at Children's Hospital Boston. Accessed 12-10-07 at: http://www.childrenshospital.org/dream/dream_fall06/teens_and_technology.html#wired


