Iraq’s Prescription for Violent Barriers to Health Care: Cell Phones and E-mail

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CHICAGO—Two small tools taken for granted in much of the industrialized world—e-mail and the ubiquitous cell phone—could play major roles in helping Iraqi physicians fly over the radar of wartime violence to treat patients more effectively and help restore the country’s once-robust health care system.

Since the 2003 US invasion, Iraqi medical professionals have been stretched to their limits. They are called on to treat casualties from explosions and car bombings so massive that patients in some cases outnumber hospital beds by 2 to 1. Physicians in Iraq also have become targets themselves, killed by death squads or kidnapped and held for ransom. Basic security needs compete daily with Iraqis’ medical and public health needs.

These threatening conditions make it difficult or impossible for physicians in other parts of the world to volunteer in Iraq, and the country’s damaged infrastructure may not support sophisticated electronic communications technologies. So a diverse group of experts has joined forces to explore just how much support may be available to Iraqi health professionals through relatively simple electronic communications technologies.

During a daylong conference here last May, these experts met in brainstorming sessions to develop new options for Iraq’s Ministry of Health to use to strengthen the country’s health system now and in the coming years.

“We are here to establish bridges between the Iraq Ministry of Health and our colleagues in the United States,” said Iraqi Health Minister Salih Al Hasnawi, MD. “We are working for the future, to see our country again positioned . . . as it was before . . . one of the most important countries in the Middle East.”

INTERNET CONSULTS

The conference also served as a forum for the rollout of a new Internet-based program that allows volunteer physicians to act as consultants to Iraqi physicians without setting foot in the country or taking substantial time away from their own practices.

The program, called International Consultants in Medicine (iCons in Medicine), is a joint effort of 4 groups: the Chicago-based Center for International Rehabilitation (CIR), the Chicago Medical Society, the National Arab American Medical Association (NAAMA), and the US-based Iraqi Medical Sciences Association.

Medical consults with iCons volunteer physicians are available to health professionals in remote areas throughout the world. The program’s immediate focus, however, is to make consultations available to physicians in Iraq and other countries in the Middle East.

“The goal is to deliver medical knowledge whenever it’s needed, wherever medicine is practiced,” said William Kennedy Smith, MD, president of CIR. Smith said the system is easy to use. “We have a desktop application which the remote physician uses; it’s very much like an e-mail application,” he explained.

Remote physicians need a computer and Internet access to download and install desktop software that allows them to upload case histories, which can be sent with digital image attachments. Through the iCons Web site, nonemergency cases are distributed to volunteers in the appropriate specialty, who receive an e-mail with a link to the case. Information is encrypted for secure transmission. When a volunteer accepts a case, he or she communicates directly with the remote physician through the Web site.
Requests for consults remain open for 48 hours. Consults that are not accepted by volunteers are sent to an iCons medical director. Remote physicians who request consults have to accept a disclaimer that affirms they are locally licensed health care practitioners and will not hold volunteers professionally liable for outcomes that result from the consultation. Volunteers must be licensed physicians who agree not to have direct contact with patients whose cases are the subjects of consultations. Physicians who are willing to provide at least 3 consultations a year volunteer through organized chapters, which currently include the NAAMA (the first chapter) and the Chicago Medical Society. As few as 3 physicians can get together and apply to form a chapter. (More information is available at http://www.iconsinmed.org.)

Smith said iCons in Medicine hopes to attract 300 volunteers who will deliver 1000 consultations the first year. “The Internet . . . does allow people to connect around similar issues of interest regardless of whether they are separated by geography or culture,” he noted. “It has a great way of finding people. Look at the way Facebook or eBay are connecting people around a particular interest. We want to apply that power to medicine.”

ASSessing public health

NAAMA officials who just before the conference had returned from an outreach trip to Aleppo, Syria, said Internet-based medical consultations also can help Middle Eastern health officials get a better grasp on health statistics in the region.

“Public health statistics in the Middle East are incredibly inadequate,” said Nabil Khoury, MD, president of NAAMA. Apart from gross death rates and birth rates, little information has been compiled, he said, noting that most health statistics in the Middle East are provided to health ministries in individual countries from the World Health Organization (WHO). Even though the WHO tracks cancer mortality, Khoury said more detailed statistics are unavailable.

“When you ask, what is the death rate from prostate cancer, nobody knows. Breast cancer? No one knows. How can any health minister or university or major health center actually deliver this care without this basic information?”

Some efforts toward compiling more complete health statistics have begun. In collaboration with the WHO, the health ministries of Iraq and Kurdistan in 2006-2007 conducted the Iraq Family Health Survey. It is only the second family health survey conducted in Iraq, and the first from which results have been published. (The report can be downloaded at http://www.emro.who.int/iraq/pdf/fihs_report_en.pdf.) Field workers surveyed 9345 households countrywide, and 14 675 women of reproductive age (15-49 years). Among the findings: hypertension is the most common chronic health condition, with an incidence of 41.5 per 1000 population. Next were diabetes (21.8 per 1000), arthritis (18.6 per 1000), and heart disease (12.0 per 1000).

Mouhanad Hammami, MD, executive director of NAAMA, also noted that Internet consultations could reveal patterns of recurring health problems in specific areas. “That can lead to a platform of research or intervention or public health education,” he said.

PUT TECHNOLOGY TO WORK

Experts at the conference who met in workshops to suggest ways in which the Iraqi health sector could use communications technologies to strengthen its services echoed some of Hammami’s comments. Eric Rasmussen, MD, president and chief executive of the nonprofit organization Innovative Support to Emergencies, Diseases and Disasters, in Palo Alto, Calif, said cell phones and e-mail are important tools to carry out field work in disease surveillance in Iraq.

Emmanuel d’Harcourt, MD, MPH, acting director of the International Rescue Committee, suggested the creation of cell phone networks that can help inform refugees, internally displaced persons, and local communities about vaccination programs or other forms of assistance.

Iraq war veteran Tammy Duckworth, a double amputee from war injuries who now is director of Veterans Affairs for Illinois, said it is common for those wounded in war to experience polytrauma. But health officials have little idea as to the extent of multiple war wounds in local communities. Increased use of cell phone networks could help Iraqi health officials to better estimate the extent of civilian war wounds, she said.

Noting that becoming an amputee is “a change-of-life condition,” Duckworth also recommended more training for and eventually certification of prosthetists who can work to acclimate those who have lost limbs to using prosthetic devices as quickly as possible after their injuries. Vocation rehabilitation, Duckworth added, is a prime area for distance-learning methods.

“Identify those individuals who are sufficiently recovered and train them for an occupation they can do, train them for specific jobs in the community,” she said.

Other recommendations included making digital capabilities available at public libraries, equipping physicians with hand-held computers, and using social networking sites like Facebook so that Iraqi physicians who have fled Iraq can share medical information with those still in the country. The need for online access to up-to-date medical journals also is great, experts said.

Iraqi Health Minister Al Hasnawi said that with technical assistance from US health officials, the WHO, humanitarian groups, and an emerging global system of Internet-based medical consultations, a long-term strategy to resurrect the country’s health care system can be developed.

“My belief is that many people will help,” he said.

In the long run, cell phones and e-mail can never fully replace hands-on medical care. But in war-torn Iraq, these tools could offer help toward rebuilding what once was known as the jewel of Middle Eastern health care.