

# Communication Technology Strengthens Communities

BY MARK STOREY

When one thinks of the concept of a community, the image of an individual working alone at a computer is seldom conjured up. Yet the ability to rapidly exchange ideas and information through communication technologies that can traverse towns, countries, continents, and hemispheres at lightening speed is rapidly becoming available to individuals around the globe. As its name implies, the World Wide Web is making possible global connections between individuals and regions formerly unknown to one another. As these connections are made and sustained, individuals are finding out more about their similarities and differences with their colleagues around the world, and working together to find common solutions to common problems. The potential of modern modes of information exchange made possible through the Internet holds limitless possibilities for the enhancement of medical knowledge both for health professionals and the patients they serve.

The capabilities of modern communication technologies can operate on both macro- and micro-levels. Just as geographically distant countries can form relationships by regularly exchanging information, so can members of local communities have their own connections strengthened by new technologies. Several such examples may be found at AIHA partnership Learning Resource Centers (LRCs), established to provide health professionals around the world with access to new methods of communicating and learning. To date, AIHA has estab-

lished LRCs at each of its 94 partnership institutions in the NIS and CEE and will be setting up additional LRCs at each of its new partner sites this fall. These centers incorporate the tools necessary to promote communication and information exchange both globally and locally. When communities have access to these tools and utilize them on a local level, they hold within their hands the means for sustainable education and growth that can impact and enhance individual lives in innumerable ways. These community-level impacts can be divided into two types: ones that create new relationships and ones that develop new modes of information exchange.

## Community Outreach

New communication technologies have the potential to create new relationships between institutions and individuals and strengthen existing relationships within communities. The impact of this type of relationship is typified by several Community Health partnership LRCs. While most LRCs were established in hospitals or universities to provide access to a large number of health professionals and students, in several Community Health partnerships, LRCs are located at a City Hall or non-governmental organization.

For example, Banska Bystrica, Slovakia's LRC is housed at City Hall, where relatively few staff need daily access to the information it provides. However, this location means that the LRC is in a prime position to take advantage of City Hall's relationships with schools, hospitals, and other community institutions. Shortly after it was established, Alexander Hlavaty, the information coordinator responsible for managing the center, sent out over 100 letters to hospitals, non-governmental public health institutions, schools, non-medical universities, non-governmental social institutions, charitable organizations, and private physicians throughout the city informing them about the LRC's opening and encouraging them to visit during its hours of operation. The letter also indicated that individuals could contact Hlavaty to request specific information.

Within the first month of sending the letter, Hlavaty received over 100 information requests from the community. In the first year of operation, Banska Bystica's LRC has provided computer and Internet training to over 50 members of the community.

After realizing the benefits of the City Hall LRC, some local institutions in Slovakia are now trying to establish similar capabilities within their own organizations, and with the guidance of the LRC, City Hall is helping them with this process. Specifically, Hlavaty has worked with one local hospital to explore the possibility of establishing its own Internet connection and has provided Internet training for a hospital librarian.



LRC Information Coordinators for AIHA's new partnerships gathered for a workshop in October in Almaty, Kazakhstan.



The LRC in Dubna, Russia was also established at a local government institution: the Healthcare Department of the Mayor's Office. Here, too, the LRC has built on existing relationships to take its resources to the local community. Julia Muravievskaya, the LRC's information coordinator, regularly disseminates information from the Internet to all of the local health and medical institutions in Dubna, including patient education materials, the text of decrees from the Russian Ministry of Health (which previously were only received in hard copy several weeks or even months later), and updat-

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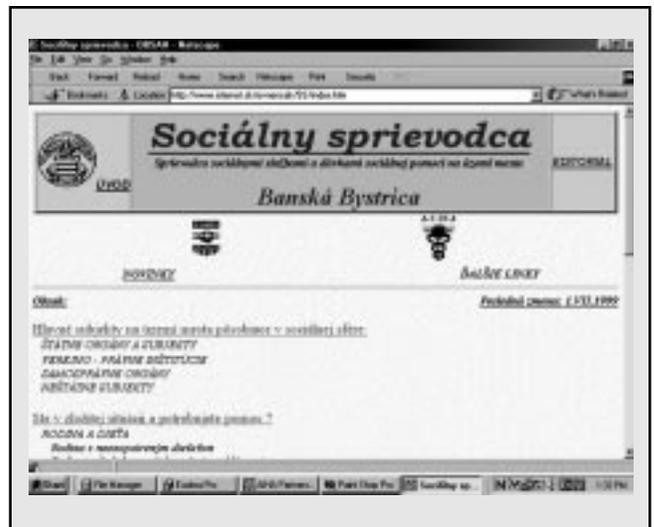
ed ICD-10 codes. Muravievskaya also actively promotes the LRC's resources during conferences and workshops held at Dubna institutions. Earlier this year, when several Dubna hospitals received a shipment of pharmaceuticals as part of a humanitarian aid package, Muravievskaya used the Internet to find the trade names of each drug along with recommendations for their use. She then provided this information to all recipient institutions.

The examples above demonstrate how two government institutions are using communication technology and improved access to information to enhance existing community relationships with local institutions. Hospital- and university-based LRCs have also pursued various forms of community outreach, for example

- The Almaty Institute of Pediatrics hosted a chat session between pediatric asthma patients in Almaty and their counterparts in Tucson, Arizona. In addition to demonstrating the LRC's ability to connect patients from around the world, the chat session demonstrated how the LRC can serve the Almaty community (see *CommonHealth*, Spring 1997, page 15).
- The National Information Learning Center in Tbilisi publishes the *Internet Medical Digest*, a bi-weekly, bilingual (Georgian and English) printed bulletin, which has a

current circulation of 500. The Digest contains medical news from the Internet for health professionals and patients, devoting about half of its content to health promotion topics.

- The Second Tashkent State Medical Institute published and distributed 5,000 copies of a handbook on distance education and the Internet to medical institutions and universities throughout Uzbekistan in order to increase awareness about communication technology capabilities for health and medical professionals.
- In March 1999, Alexei Nekrasov from the Niyazov Medical Consultative Center in Ashgabat, Turkmenistan assisted the organizers of a non-AIHA Maternal and Child Health Seminar. During the seminar, Nekrasov explained the capabilities of the LRC and distributed materials in Russian on maternal and child health that he found on the Internet. Nekrasov then extended an invitation to local participants to contact him for further information support.



The Banska Bystrica LRC, located at City Hall, includes a directory of local social services.

- In the Czech Republic, Eva Lesenkova of the School of Postgraduate Medical Education and Jarmila Potomkova of Palacky University have teamed up regularly over the past several years to conduct training sessions on practical Internet applications for over 400 medical librarians and physicians from various hospitals in the Czech Republic.
- During a meeting with the academic council at Donetsk Medical University in Ukraine, Svetlana Chelakh, the information coordinator at Donetsk Oblast Trauma Hospital, gave a presentation about the value and benefits of the hospital's LRC. As a result, the University is now working to

upgrade to a direct Internet connection so that they may establish a center modeled on the LRC.

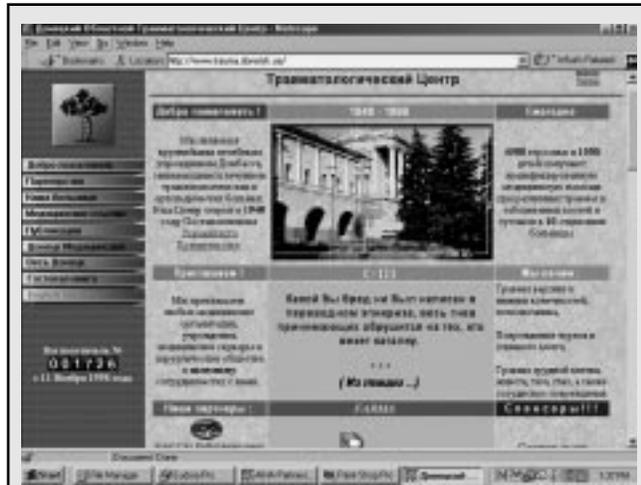
The above examples demonstrate how information and communication technology can significantly enhance relationships within local communities. Many LRCs have, in fact, become important hubs for disseminating information throughout the community and providing training to local health professionals. In some cases, specific LRCs have served as models for replication within their community.

### Community Interaction

The second type of impact LRCs have on their local communities involves the development of new modes of communication and information exchange. This typically includes the use of technologies such as the World Wide Web to develop innovative and potentially more effective ways for members of a community to interact with one another. For example

- Lev Dubovoy, the information coordinator from Stavropol Krai Clinical Hospital in Russia, has been involved in the content development of a regional medical Web server. This site ([www.foramed.ru](http://www.foramed.ru)) provides links and information about local health providers, equipment manufacturers, pharmaceutical companies, and other health organizations in the region. The medical server also provides key resources to local health professionals, including a Russian version of the ICD-10 codes and a drug index. The Web server was designed and developed by FORAMED, a local non-governmental foundation dedicated to the development and communication of medical technology.
- Two LRCs in Ukraine are pursuing similar initiatives for their own local medical communities. Grigory Tyapkin of Odessa Oblast Hospital has developed a Web site ([www.mednet.odessa.ua](http://www.mednet.odessa.ua)) that aims to provide health information to the local and national medical community. The site includes over 34 megabytes of information, most of which is in Ukrainian or Russian. Much of this information has been made available electronically by the hospital, which has collected, scanned, and posted articles, reference manuals, and textbooks to widen their usage.
- In Donetsk, Andrei Nabokov and Svetlana Chelakh at the Oblast Trauma Hospital LRC have developed a Web site ([www.trauma.donetsk.ua](http://www.trauma.donetsk.ua)) that provides online medical information in Russian and a directory of health institutions and professionals in the Donetsk region.

These three regional Web servers represent an important development for the local communities they aim to serve. As members of the local community gain access to the Internet,



The Web site of Donetsk Oblast Trauma Hospital contains an online directory of regional health institutions and professionals.

they are able to get up-to-date information about the services they need. Patients can compare the services of health providers in their region, possibly even choosing their own physicians. Health providers are better able to compare the pricing and availability of pharmaceuticals, equipment, and supplies.

This type of information is in high demand. One of the most commonly visited Russian language medical Web sites (<http://cp1251.deol.ru/medicine/index.htm>) provides information about drugs currently available in Moscow pharmacies. While the number of Internet users in the CEE and NIS is relatively small compared to users in the West—especially among the patient population—this online interaction has the potential to grow into a critical new market in health information and services.

Other LRCs have undertaken similar efforts to support their local community by making new resources available through the Web. These include

- the LRC at Banska Bystrica, Slovakia's City Hall, which has a directory of social services available to the community on its Web site ([www.isternet.sk/evnencak](http://www.isternet.sk/evnencak));
- Bruno Jezek of the Purkyne Military Medical Academy in Hradec Kralove, Czech Republic, who developed a Czech-English/English-Czech dictionary of military and medical terms for the Academy's Web site ([med3.pmfhk.cz/cgi-bin/s.pl](http://med3.pmfhk.cz/cgi-bin/s.pl));
- Andrew Tooziak, the information coordinator at the L'viv Regional Neonatal Center, who created a Web site for the L'viv Regional Charitable Foundation "Infant." The bilingual, English-Ukrainian site ([www.leopolis.net/infant](http://www.leopolis.net/infant)) reaches out to the Internet community for help in the quest to improve healthcare for Ukrainian children; and
- a Web site for the Russian clinical journal *Kremlevskaya*

