The current generation of computer-savvy health-care providers and students can navigate their way through electronic databases with ease. That’s why it’s easy to forget how progressive HUBNET was when it was introduced as a pilot program in 1991.

Twenty-five years ago, the medical librarians at the University at Buffalo and its eight teaching hospitals joined forces to create the first biomedical library consortium of its kind. In formalizing an affiliation that had existed for decades between UB and the participating institutions, consortium members had two primary goals: to improve access to the libraries’ collective resources and to expand the range of services provided to health-sciences faculty and students.

As HUBNET was being launched, Loonsk—then the medical school’s director of computing—designed a required medical school course in informatics, the first of its kind in the country. In teaching the course, Loonsk also taught the first generation of HUBNET users.

“We had no permanent computer classrooms, so we'd roll these computers to a classroom,” he says. “Then the computer would heat up and die on us. Here we are trying to teach everyone how valuable this will be and it’s crashing on us.” Nonetheless, students and clinicians alike embraced the technology, recognizing how it could help them in their studies, teaching and practice.

“Just to get to Medline rather than having to go to a shelf and open up Index Medicus was a big deal,” says Martin Mutka, director of LCHIB. “Having something like weekly updates to Current Contents was quite a revolution and, in and of itself, quite helpful.”

Among its earliest users was Freer, who was first introduced to it when he attended a HUBNET workshop with internal medicine residents. “Prior to that time, if you wanted to search a journal, you had to go to a librarian, who had some inscrutable computer system for searching—this strange language that only they knew. But this was neat because you could do it on your own.”

Indeed, HUBNET couldn’t have been launched as early as it did were it not for the consortium.

“The health-sciences library and many of the people associated with it were really outstanding in recognizing...
that electronic resources were going to be critical for health care," says Loomis, now the director for Interoperability and Standards in the U.S. Department of Health and Human Services' Office of the National Coordinator for Health Information Technology. "These were people who weren't necessarily comfortable with using information technology themselves in the beginning, but they saw what it could do for health care."

Because the consortium was one of the first groups to invest in electronic biomedical databases, it received favorable contracts from vendors eager to drum up business. These circumstances, in turn, enabled the consortium to increase HUBNET's offerings over the years.

Mutka, who tracks HUBNET use on a quarterly basis, says that's one of the reasons he has seen a steady increase in usage over the years. "The trend is definitely on the upswing. There's a 15 percent or more increase in usage every year, and that's probably because there's more to look at."

The consortium has also expanded its membership over the years. Today, it includes nearly 50 members—affiliate members, associate members and partners. These include hospitals and medical centers throughout the state as well as area colleges and businesses.

"There are probably only a handful of biomedical consortia that are characteristically similar to ours because electronic publishers can make more money negotiating individually with specific institutions," says Mutka. "So it was a good thing that everyone working on this project 25 years ago had the foresight to grasp the consortial idea. And the consortial idea was a function of the fact that there wasn't a single teaching hospital at UB."

C. K. Huang, the director of UB's health sciences library at the time, says that the consortium made the libraries more efficient because they were able to avoid duplications of internal subscriptions. What's more, it bolstered the libraries' purchasing capabilities. As a consortium they received annual dues from the participating hospitals and became eligible for financial support from regional and state library associations.

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**For example,** in 1984 they used a $20,000 grant from the Western New York Library Resource Council to convert their card catalog into a database, the first step toward automating. They also received a grant reimbursing them for mailing articles to physicians, a common practice in the era before faxes and e-mail.

"The idea was to get the institutions organized so every health professional in the area has free and equal access to the information for their clinical and educational needs," Huang says. "We wanted to spread health science information to help patient care. That's what health science libraries ought to do."

And HUBNET has been a tremendous asset in that regard, according to some of its biggest users—medical residents.

"HUBNET is the best way to easily access most up-to-date medical information and perform literature reviews relevant to clinical practice," says Reem Mustafa, MD, chief resident for the preventive medicine residency program.

"It serves essentially as a mobile library where you can read full-text books, journals and at the same time search the Medline library from any location. The fact that the information available is multidisciplinary provides a handy tool to review related aspects of different specialties," says Addes Roseanne Berger, MD, the medical school's senior associate dean for graduate medical education.

"In an academic environment, residents and faculty need ready access to current information at home and at work. It's essential for learning, teaching, research and patient care decisions based on the best available evidence. HUBNET makes this possible!"
Dentistry without Dread

Researchers study no-drilling, no-shots dentistry

Imagine having a decayed tooth repaired, painlessly, without drilling or shots of anesthesia to numb the area.

Wishful Thinking? Not if two studies being conducted at UB’s School of Dental Medicine show positive results.

In one study, funded by a $300,000 grant by Apolonitis, LLC, researchers in the school’s Center for Dental Studies are testing a nasal spray that numbs the upper teeth.

“If this study is successful, it may mean the end of dental injections when dentists are performing procedures on the upper arch,” says Sebastian Cancio, DDS, principal investigator on the study.

The study is testing the effectiveness in dental procedures of a topical anesthetic normally used by ear, nose and throat physicians when they operate on the nose.

Patients who received this anesthetic for that purpose reported it also numbed their upper teeth, sparking interest in using it for dental procedures.

“We are currently testing to determine what the optimal dose is for this spray when used as an anesthetic agent for the maxillary (upper teeth),” Cancio explains.

“The current study includes 85 patients and should be completed by the end of January. It will then be followed by a second study in March. Once we know the results, we’ll then test it in a broader population,” Cancio said.

Coinvestigators, all from the UB dental school, are Eugene Patera, DDS, Sandra Shoustid, DDS, and Joseph Bonavilla DDS.

The second study, set to begin this spring, will test the use of ozone to kill bacteria in a decayed tooth and its potential to eliminate the need for the dreaded drill, at least to repair simple cavities. Researchers have used ozone for years in other industries.

Cancio, who also is the UB principal investigator on this study, says the ozone delivery device currently is being used in Europe. “If the U.S. studies are successful, it should be available in this country in about two years,” he says.

The study will evaluate the effectiveness of the ozone delivery device, which fits over a tooth and forms an airtight seal, in arresting tooth decay. The study will enroll 125 participants and will last 18 months.

“Following application of the ozone, patients will use a remineralizing solution, which strengthens the weakened tooth structure and, in many cases, eliminates the need for any dental drilling,” says Cancio.

Additional investigators on this study are Othman Shibly, DDS, Jude Fabiano, DDS, Benita Sobieroj, DDS, Maureen Donley, DDS, and Nina Kim, DDS, all from the UB dental school.

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Health Fair for All

Medical students reach out to underserved

UB medical students hosted a health fair for the general public on March 18 in an effort to foster contact with local residents, as well as to increase awareness about a wide range of health issues of concern to the Buffalo community.

The health fair was sponsored by the UB chapter of the Student National Medical Association (SNMA), and was held in the Buffalo Museum of Science.

The fair is an annual tradition of the SNMA at UB—-the local chapter of the nation’s oldest and largest independent, student-run organization focused on medical students in under-represented minorities; however, organizers point out that this was the first year the fair also was designated as the regional health fair for SNMA Region IX, which includes chapters at medical schools throughout New York State and New Jersey.

“Every year every region has a health fair,” says Tamara Thomas, copresident of the SNMA chapter at UB. “This year, UB was honored to be the place where the regional health fair was held.

“I think it’s critical for students who are developing professionally as doctors or dentists or nurses to understand the importance of serving the community in which they live,” adds Thomas. “This is a perfect opportunity for them to be involved and really give back to the community.”

Surbhi Bansal, a second-year student in charge of organizing this year’s event, says regional sponsorship helps the health fair achieve its mission because additional assistance means a larger event can be held than in previous years.

“Our goal,” she says, “is to let the students be more out there in the community, get to know the community, and also let the community know about the involvement of students.”

Students staffed information booths on a wide range of topics, including those that dominate the health-care landscape in Buffalo, such as cardiovascular disease, diabetes, hypertension, weight control and obesity.

Free blood pressure screenings were available and attendees had an opportunity to meet representatives from Buffalo Free Clinic Services and local medical insurance companies.

Regular contributors to this, as well as past SNMA-sponsored health fairs, include the School of Dental Medicine, the Department of Exercise and Nutrition Sciences in the School of Public Health and Health Professions, Kaleida Health and the Lighthouse Free Medical Clinic, a program run by UB medical students in one of the poorest neighborhoods in Buffalo.

Lynn Ven, a second-year medical student who performed blood pressure screenings and operated a booth at the 2006 health fair, says the event provides a casual environment in which people feel comfortable enough to open up and ask questions about their personal health situations.

“It is a good setting to talk about all sorts of things,” she says. “It’s a little bit of a friendlier environment—not an office where I’m wearing a white coat. I’m just another person. They can ask me questions that they might not want to ask their doctor, for whatever reason.”

She points out that last year’s health fair was held at a neighborhood church on the East Side of Buffalo in an effort to target populations that had limited access to health-care information.

This year’s location at a prominent site, Bansal notes, Bansal, aimed to attract greater numbers of people from throughout the entire Buffalo community.

“We wanted to make it accessible to the general public,” she says. “The first thing that came to mind was the Buffalo Museum of Science.”

“I think it’s critical for students who are developing professionally as doctors or dentists or nurses to understand the importance of serving the community in which they live.”

—Tamara Thomas, Class of 2009

“Health Fair for All

Medical students reach out to underserved”

By Kevin Fayling