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All Health is Local: Go Local Massachusetts Helps Consumers Locate Health Care Services Close to Home

Sally A. Gore
University of Massachusetts Medical School, sally.gore@umassmed.edu

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ALL HEALTH IS LOCAL: GO LOCAL MASSACHUSETTS HELPS CONSUMERS LOCATE HEALTH CARE SERVICES CLOSE TO HOME

Sally Gore

ABSTRACT

Go Local Massachusetts (GLM) is a Web-based resource designed to help the residents of Massachusetts identify health services, health care providers and health-related programs available in their local area. Go Local is an extension of MedlinePlus®, the National Library of Medicine's Web site for consumer health information. The goals of GLM are to (1) identify local health care service resources, (2) link the resources to subjects within the MedlinePlus® database, and (3) increase collaboration between entities in Massachusetts with health information technology, making these services available to all residents of the state. This article describes the process of developing GLM, including establishing state-wide partnerships, building the database, and promoting the resource to librarians, health care providers, and the general public.

Author information:

Sally Gore, MS LIS, is the Project Librarian for Go Local Massachusetts, Lamar Soutter Library, University of Massachusetts Medical School, 55 Lake Ave. North, Worcester, MA 01655 (E-mail: sally.gore@umassmed.edu).

INTRODUCTION

According to the old adage, all politics is local. The same could easily be said of medicine – all health is local. While the advent and development of the Internet and related technologies have seemingly opened up the entire world, when it comes to health care, consumers are seeking resources that are convenient, close to home and of the highest quality.

Surveys and studies continue to report a growing number of adults claiming the Internet plays an important role when searching for information about health care issues, either for themselves or to help another person address a major health concern or illness[1-2]. When asked the sources for information used, however, the same respondents offer a wide variety of answers, demonstrating that while the Internet is a powerful tool for information delivery, the sheer volume of resources available can make the search process daunting. When it comes to finding accurate and up-to-date health information, even the most Web-savvy individual can face a challenge.

Librarians specializing in health and medical information play a vital role in helping consumers navigate their way through this virtual pile of information. Developments in information technology and information access during the past decade have made valuable electronic information available to diverse populations as never before, but lacking organization and/or centralization of the resources, the information is not always easily accessible to those needing it most. As experts in the areas of organizing and delivering information, health sciences librarians can do much to address these needs.

In 2004, the Lamar Soutter Library of the University of Massachusetts Medical School (UMMS) began working on a project to achieve this goal of providing easier access to quality consumer health information to the public. In collaboration with the National Library of

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Medicine (NLM), librarians at UMMS developed Go Local Massachusetts (GLM), a Web-based

resource designed to help the residents of Massachusetts identify health services, health care

providers and health-related programs available in their local area.

This article provides a description of GLM, giving attention to the development process,

including establishing state-wide partnerships, building the database, and promoting the resource

to librarians, health care providers, and the general public.

Expanding MedlinePlus®

Dedicated to providing quality and accurate medical information to the general public,

NLM developed MedlinePlus® in 1998 to help people find answers to health questions. The Web

site <http://www.medlineplus.gov> links visitors to information from authoritative sources such

as the National Institutes of Health, the National Library of Medicine, and professional medical

and health-related organizations[3]. Other resources available include information on drugs and

supplements, interactive tutorials, "easy to read" information for those with lower literacy skills,

and resources designed especially for low vision users. More than 700 different health topics are

covered in MedlinePlus®, making it a valuable – and free – resource for patient education

materials.

While it is consistently ranked as one of the leading consumer health sites in the country

and is one of the most visited Web sites maintained by the federal government[3], NLM sought to

expand MedlinePlus®, connecting the available information on health topics to regional

resources addressing local health care needs. In 2003, NLM launched the Go Local concept as an

extension of MedlinePlus®. The goal of the project is to provide consistent, easy-to-navigate

paths between the health topics pages of MedlinePlus® and related regional health care providers

and services. The organization and structure of the sites is overseen by NLM, insuring that the

different portals meet the established principles of NLM and MedlinePlus®, including clear labels, useful navigation, and compliance with accessibility standards[4].

In May 2005, after extensive usability testing, Massachusetts joined Indiana, North Carolina and Missouri as one of the first four Go Local projects linked to the MedlinePlus® Web site. One year later there are fourteen projects linked from MedlinePlus® and nine more in the development process.

PROJECT DEVELOPMENT

Go Local Massachusetts emerged as the logical conversion of an already-existing consumer health project of the Lamar Soutter Library (LSL), UMass HealthNet. In early 1999, LSL was awarded a grant from the William Randolph Hearst Foundation to create the UMass HealthNet program. Ongoing funding for the project continues through a combination of other grant funds and LSL resources. HealthNet is one of many initiatives supported by LSL in conjunction with the Medical School's mission of community outreach and partnership.

One of the goals of HealthNet is to provide access and delivery of quality consumer health information to residents and health care professionals across central and western Massachusetts communities. During its first years, this mission of HealthNet was accomplished in a number of ways including the development of a Web site providing links to quality health information produced by on-site experts or collected from other external sources. As MedlinePlus® grew in scope, much of the content on the HealthNet Web site became redundant. To save time and resources, HealthNet began to focus less upon soliciting and producing original content, choosing instead to link to and promote the use of MedlinePlus® to patrons, assuring their continued access to authoritative consumer health information.

In the spring of 2003, when NLM announced the creation of the Go Local project, the HealthNet project staff recommended to the director of library services that a logical progression of the project would be eventual incorporation of HealthNet into MedlinePlus® Go Local, thus merging the strategic goals of both projects (see Figure 1).

[PLACE FIGURE 1 HERE]

Objectives

The objectives for bringing the Go Local project to fruition in Massachusetts were three-fold; (1) identify local health care service resources, (2) link the resources to subjects within the MedlinePlus® database, and (3) increase collaboration between entities in Massachusetts with health information technology making these services available to all citizens through Go Local.

Massachusetts has a very prominent health care delivery system with four accredited medical schools, nearly 30,000 licensed physicians and more than 100 hospitals and health care centers serving a population of approximately 6.5 million people[5]. The state has long demonstrated a strong commitment to dissemination of health information to professionals and consumers through the many health sciences libraries and corresponding cooperative consortia that exist across the Commonwealth. Such commitment is evident in that more than half of the hospitals contain a health sciences library and the Massachusetts Health Sciences Library Network (MAHSLIN) provides many opportunities for development of health information professionals. Further, multiple regional consortia, a strong public and academic library system, and a comprehensive regional library system all exist, offering numerous access points for health information. Such an environment proved invaluable in meeting the project's major objectives.

Figure 1. Conversion of UMass HealthNet to MedlinePlus® Go Local

Execution

In the fall of 2004, a proposal by the Lamar Soutter Library, UMMS, to head the Go

Local project for Massachusetts was approved by NLM and in January 2005, a Project Librarian was

hired to oversee the day-to-day operations of the plan. The establishment of an Advisory Board

was the first step in creating a framework for collecting and developing the database of services

that would eventually become the foundation of the GLM Web resource. Additionally, members

of the Advisory Board would assume leadership responsibilities in promoting Go Local across

the state. Postings to professional listservs, networking, and word of mouth produced a group of

ten volunteers representing different professions and geographic regions of the state. Hospital,

academic and public librarians, a family physician, the director of the Massachusetts Statewide

Area Health Education Center (AHEC) Program, and a representative from the National

Network of Libraries of Medicine, New England Region comprised the membership.

Once assembled, the Advisory Board worked with the Project Librarian to design

selection criteria to determine whether or not a health care service, agency or provider was to be

included in the GLM database. Striving to maintain a high level of integrity in terms of the

information provided, the Board chose to adopt the same criteria employed by NLM when

choosing sources of information for MedlinePlus®. In addition, several other standards relevant

to GLM and its particular purpose were added (see Table 1).

[PLACE TABLE 1 HERE]

Identifying health care service providers was the next step. A strategy was developed to

meet the challenge of organizing a large amount of information, in particular establishing

priorities deciding which health services to target first in the collection process. Major points of

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Go Local Massachusetts Selection Criteria Checklist
Authority of source • The sponsorship of the site is clear. • The credentials or qualifications of the sponsors are provided. • There is a way to contact the site. • Sites for an individual health care provider include credential information. • If the site is commercial, it acknowledges any commercial interest or personal point of view.
Content • Sites collected contain only information about local health services and providers. Locally created health information is not included. • Pages contain a created, revised, or update date. • Links on the site are reliable and relevant. • Information on the site is unique and not readily available elsewhere. The information is not redundant with information available from other sources already in the database. • The site does not contain inaccurate, erroneous, misleading or dangerous medical information, claims, or allegations. • Most information on the site is available at no charge. • Registration, an account, or password is not required to access site information.
Audience • Consumers or the general public is the intended audience of the site. • Content is accessible to persons with disabilities.
Local Relevance • The site provides information about a local or regional organization, service or activity.

TABLE 1. Go Local Massachusetts Selection Criteria

care such as hospitals, health clinics and nursing homes were deemed central, as were the reliable referral sites of libraries and public agencies.

To focus upon the health needs of Massachusetts residents, the "Healthy People 2010 Leading Health Indicators" for the state was consulted[6]. Based upon this report, information on programs and services addressing physical activity, obesity, tobacco use, substance abuse, responsible sexual behavior, mental health, injury and violence, environmental quality, and immunization was sought.

Several sources of information were readily available from NLM including databases of accredited hospitals and nursing homes, and health sciences libraries. Contact information for relevant state and municipal agencies, such as the boards of health for each town and city in Massachusetts, was also easily accessible. Members of the Advisory Board, as well as other health sciences and public librarians around the state, provided numerous print directories of resources for review.

As the staff for GLM was collecting information on health care services in Massachusetts, NLM staff was developing the Go Local input system. Two locally-hosted Go Local sites, North Carolina and Missouri, were piloted between 2003-2004 to determine the factors involved in establishing and maintaining a Go Local project. After review, staff at NLM realized the time and expertise required to undertake a project at this level would likely prevent states or regions from producing a Go Local site. The creation of an NLM-hosted system could help potential projects overcome these obstacles. Go Local projects still have the option of hosting their sites on local servers, however "the NLM system provides the hardware, vocabulary mapping, user interface, and technical infrastructure, leaving local areas free to concentrate on collecting and indexing local service information"[7].

In April 2005, NLM released a version of the input system allowing GLM staff to begin

entering data and the task of converting all of the collected information into database records was

underway. Each record in the Go Local database contains the name, address, city, state, zip code

and phone number of the service. If available, a Web site URL is supplied. A brief description of

the service(s) offered is also written. The Project Librarian developed a style guide to insure

consistency in the information recorded. An example of a completed site record is shown in

Figure 2.

[PLACE FIGURE 2 HERE]

In order to work seamlessly with the MedlinePlus® database, local resources need to be

assigned descriptors from the existing MedlinePlus® controlled vocabulary. These determine how

the resource will display for the user. Using the vocabulary mappings supplied by NLM, the

selector creating the record assigns the associated health service terms (healthcare providers,

health facilities, health programs and services) and health topics (diseases and/or conditions)[7].

More than 150 health service terms relating to 300 health topics are available for selection,

making this aspect of creating the record the most complex and time consuming. Rarely does a

resource provide only one type of health service addressing one or two health topics, but more

often each record contains multiple service terms and associated health topics.

While NLM controls much of the look of the Go Local sites, local areas do have the

ability to modify their sites in some ways. These include creating the homepage banner

(including a project logo), managing the content of the footers, deciding upon the color scheme

for the site, uploading images and maintaining a "Featured Site" for the homepage, and creating

and managing the content of the "About Us" page. Projects also have the ability to customize
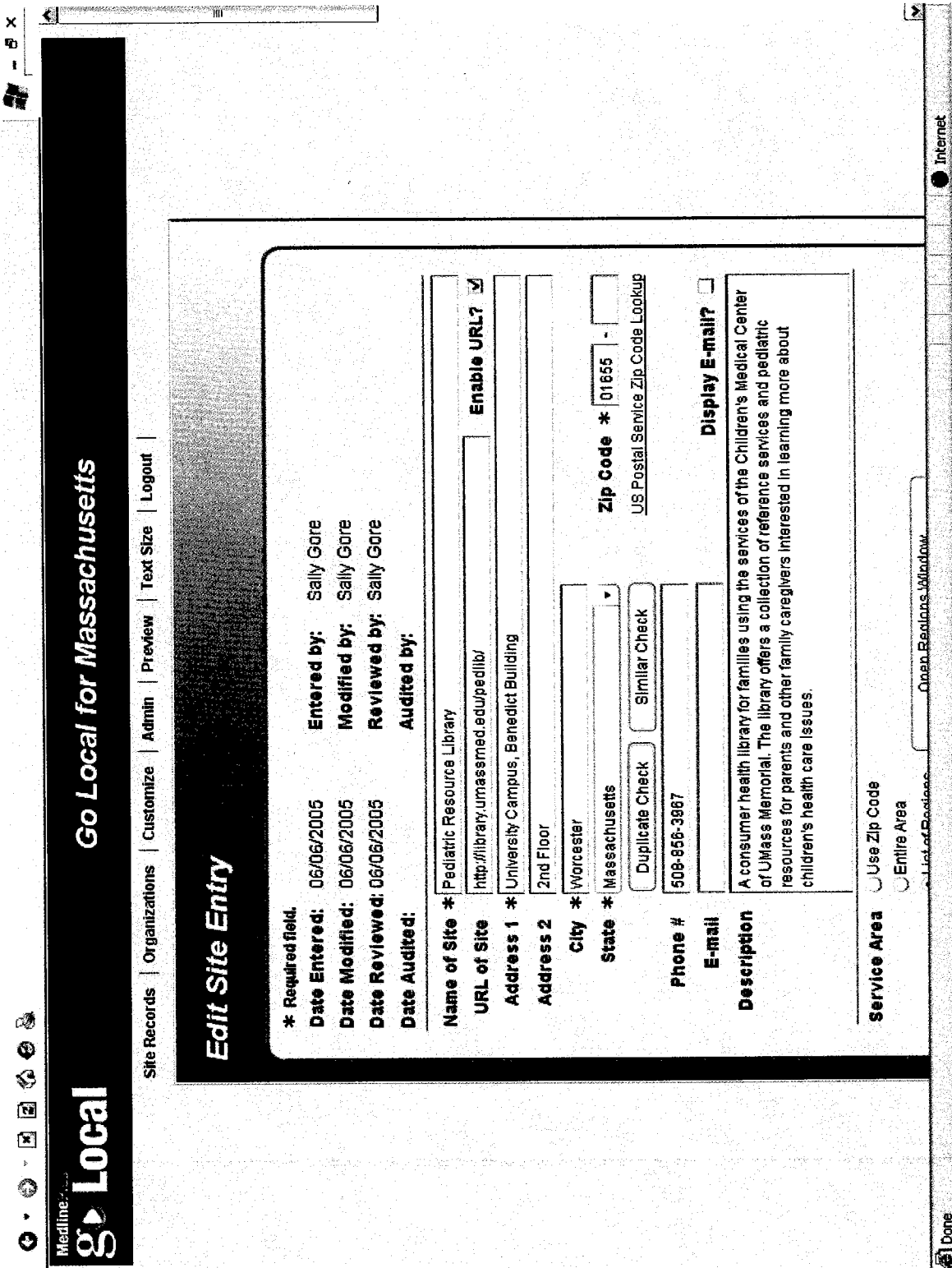
g▶Local

Go Local for Massachusetts

Site Records | Organizations | Customize | Admin | Preview | Text Size | Logout |

Edit Site Entry

* Required field.

Date Entered:	06/06/2005	Entered by:	Sally Gore
Date Modified:	06/06/2005	Modified by:	Sally Gore
Date Reviewed:	06/06/2005	Reviewed by:	Sally Gore
Date Audited:		Audited by:	

Name of Site * Pediatric Resource Library

URL of Site * http://library.umassmed.edu/pedlib/   ☑ Enable URL?

Address 1 * University Campus, Benedict Building

Address 2 2nd Floor

City * Worcester

State * Massachusetts ▼

[Duplicate Check] [Similar Check]

Phone # 508-856-3967

E-mail

Zip Code * 01655 - ☐ Display E-mail?

US Postal Service Zip Code Lookup

Description A consumer health library for families using the services of the Children's Medical Center of UMass Memorial. The library offers a collection of reference services and pediatric resources for parents and other family caregivers interested in learning more about children's health care issues.

Service Area ○ Use Zip Code
○ Entire Area
○ List of Regions   Open Regions Window

Figure 2. Sample site record

their local area map, supplied by NLM, essentially defining the local areas that services will be assigned.

A launch date of early May was set by NLM. Test case scenarios were made available and those projects feeling they had adequate services in their database submitted their sites for testing by NLM staff. Massachusetts and Indiana, two projects utilizing the NLM-hosted system, were approved and joined locally-hosted North Carolina and Missouri as the first four to appear as Go Local links from MedlinePlus® on May 4, 2005.

Upon its public release, GLM had approximately 1,500 records in its database of services. Resources continue to be identified and records created, and today the database contains approximately 3,250 records. Start-up funding from NLM, through the National Network of Libraries of Medicine, New England Region, allowed for the hiring of content selectors to help with the identification and evaluation of resources and the creation of site records. Students in graduate programs for library and information science were recruited to assist in these tasks.

The "Go Local Experience"

Go Local Massachusetts provides a seamless link between the information about health topics found in MedlinePlus® and contact information for health care providers in their local cities or towns. The connections between the two resources, maintained by consistent and visible links, makes it easy for users to navigate between them. Using the health topics pages, a visitor to MedlinePlus® can learn about the topic in question, jump to a map of Massachusetts, choose his or her location (by either clicking on an area of the map, entering a zip code, or picking a listed city), and receive a list of results of the various health services available in that area that address the topic. Each result also provides, if available, a hyperlink to the provider's Web site for more information. Additionally, a results page in GLM also provides links back to related

health topics pages of MedlinePlus®, making the path between the two resources reciprocal (see Figure 3).

[PLACE FIGURE 3 HERE]

Those seeking information only about local resources can access GLM directly through its unique URL <http://www.medlineplus.gov/massachusetts>. From the GLM home page, one can search for services in several ways; by location, by providers, facilities and services, by diseases and health issues, or by all services at once. Keyword searching is also possible by utilizing the search box located on the home page.

Outreach and Promotion

In November 2005, the Lamar Soutter Library hosted the official launch of GLM. The event was attended by librarians from public, academic and medical settings around the state, faculty, staff and students of the University of Massachusetts Medical School, area health care providers and health educators, and members of the press. A state legislator offered the keynote address, stressing the importance of providing quality health information to the public and the prominent role the Internet is playing in this venture.

Outreach for GLM takes numerous forms. A portion of the start-up funding for the project was designated for marketing and promotional materials. Several original designs were created and used to make unique bookmarks, note pads, pens, pencils and magnets publicizing the site. All are available free of charge to libraries and health service providers. The materials are advertised on the GLM Web site and users can request supplies via the Web-based form on the "Contact" page, email or phone.

End-user training tools including handouts, tri-fold brochures, and self-running slide shows were created. All are distributed or shown during consumer health classes and professional meetings attended by the Project Librarian or other LSL staff. Staff from the
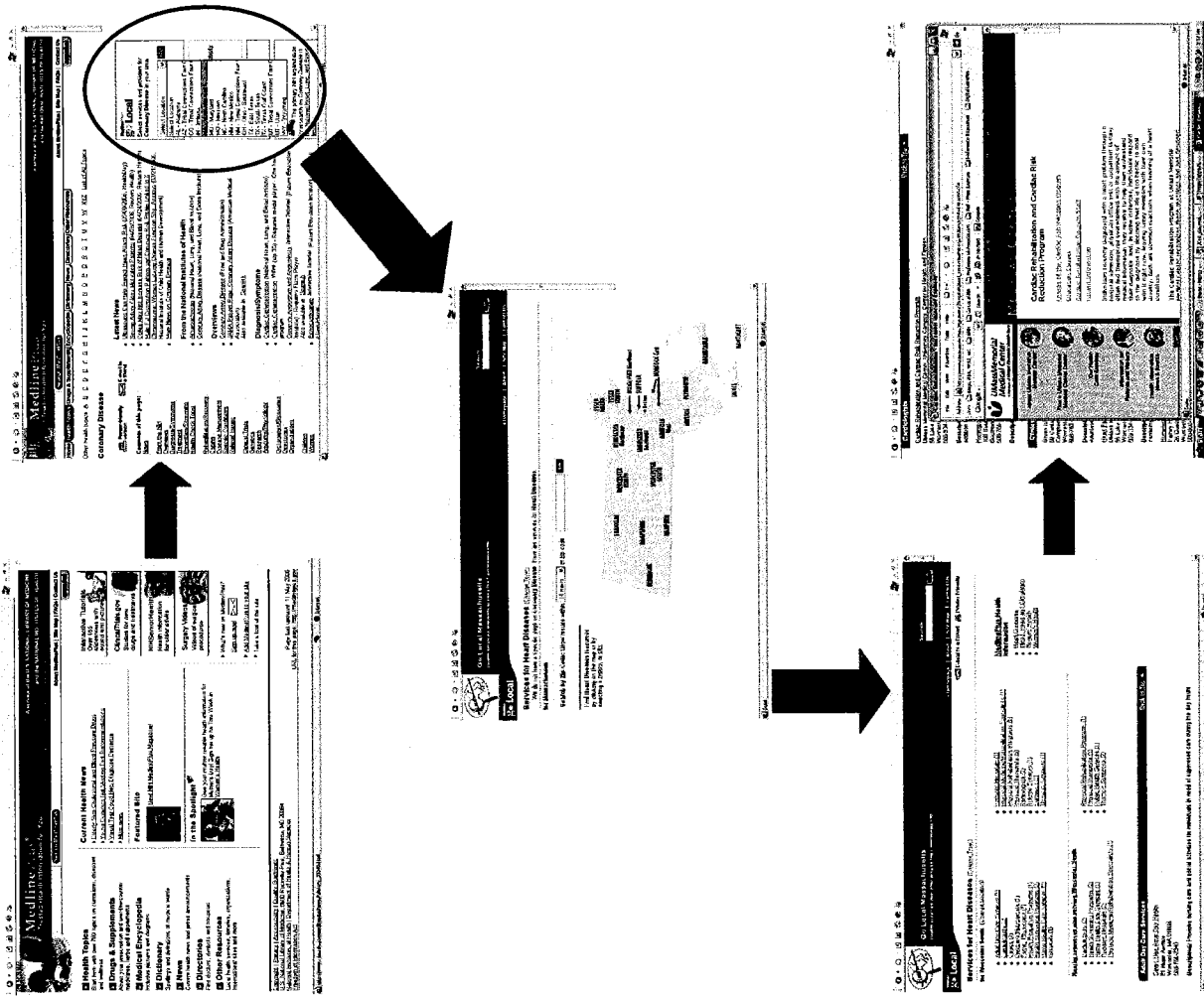
Figure 3. The Go Local Experience

National Network of Libraries of Medicine, New England Region also make GLM materials available at their booth when exhibiting at a wide variety of meetings in the area.

One of the more original creations for this phase of the GLM project was the instructional DVD, "All Health is Local: Introducing Go Local Massachusetts". The Project Librarian, in conjunction with an Advisory Board member, worked with a community college media department, local semi-professional actors and a public library to produce five different audiovisual scenarios demonstrating the use of GLM as well as MedlinePlus®. All parties involved in making the DVD volunteered their time and expertise, resulting in a product that cost virtually nothing to create. Such efforts demonstrate the practical and economic feasibility of producing promotional and instructional materials at the local level for local dissemination.

The 15-minute program debuted at the official GLM launch and is distributed freely to libraries, health agencies and public access cable channels. The video is also available via streaming media links on the GLM "About" page. The scenarios in the DVD are both entertaining and informational and have been well received. Future plans include editing portions to create public service announcements for commercial television.

Maintenance and Audit

The benefits of Internet resources are lost without a firm plan in place for maintenance and upkeep. Broken links and inaccurate information plague too many projects initially begun with good intention. To insure that GLM remains current and accurate, a maintenance plan was established for routine review of the resources in the database.

An ongoing audit process involves examining each record in the database at least once per year. As GLM recently reached its one-year anniversary, most of the initial records created are now being audited. Contact names and addresses, as well as other information regarding

individual resources, is reviewed for accuracy. Services offered are assessed and checked against those currently mapped in the existing record. The audit function supplied by the NLM-hosted system provides a date-stamp for each record as it is reviewed, helping the GLM staff to track the progress. A more detailed maintenance module is presently under development by the staff at NLM and will be released in the near future.

A weekly broken-link report is automatically generated by the NLM-hosted system. The Project Librarian is responsible for reviewing the list at the beginning of each week, checking sites and editing links as necessary. Links can also be turned on and off easily. This feature proves valuable for addressing sites that are undergoing construction or for other reasons are off-line for extended periods of time.

CONCLUSION

Medical librarians play an important role in assuring that consumers have access to accurate, high-quality health information. With GLM, librarians from the Lamar Soutter Library at the University of Massachusetts Medical School are able to provide the residents of Massachusetts with the information they need to locate health care services in their local communities, thus helping to improve the overall health of the public in the state. The project offers a user-friendly, current and informative Web site where resources from across the state, covering a wide range of health care topics, are centralized into one location.

More than just a resource for consumers, GLM is a valuable referring tool for physicians and other health care workers. Because of its association with MedlinePlus®, as well as the support of regional libraries, it enjoys a high level of credibility. Established selection criteria insure that resources included in GLM are evaluated for authority and reliability. The content of

the site is continually reviewed, creating a process that ensures that consumers, as well as other health care professionals, are accessing resources that are informative, current and legitimate. All of these factors work together to produce a tool practitioners can use and recommend with confidence.

Since the official launch of GLM in November 2005, the feedback has been overwhelmingly positive and consists of routine contact by health care and social services providers requesting inclusion of their service on the site. Collaborating with librarians and health care professionals from across the state, the identification and verification of local services continues, helping GLM to become a comprehensive database of resources covering a wide variety of health services and all regions of the state. Committed to continually verifying and updating the information while building an even greater selection of resources, GLM is dedicated to ensuring that all health and health information is indeed local.

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