Outreach to community organizations: the next consumer health frontier*†

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Outreach by health sciences librarians to various constituencies helps ensure that the information needs of these groups are adequately met. In the past, librarians have extended outreach to isolated rural health care providers, urban clinicians not affiliated with libraries, and consumers. One logical next step in outreach efforts is to partner with existing community groups who seek to improve the health of residents concerning such areas as lead contamination and rising asthma rates. This article describes a National Network of Libraries of Medicine–funded project, where librarians worked with a group of grass roots community organizations, schools, and clinics. Knowledge gained from past outreach projects was applied with mixed success because of the unique nature of community groups where many unanticipated issues arose. Lessons learned while extending outreach library services to community groups are described.

INTRODUCTION

Health sciences librarians have a distinguished history of outreach to underserved health care professionals and, more recently, to consumers. A natural progression of this outreach would be to extend access to health information to community groups involved in public health issues. Carrying out the mission of public health to ''fulfill society's interest in assuring conditions in which people can be healthy'' [1] can actually prevent some diseases for which consumers currently seek care and information. Monitoring the health concerns of entire communities to promote healthy practices and behaviors helps assure populations stay healthy. Traditionally, consumer health has been oriented toward patients, nonprofessionals, or the lay-public and tends to be consulted once patients have a disease. Public health, on the other hand, is preemptive, as it seeks to avoid unhealthy conditions for whole populations or to solve health issues at the community level.

The Library of the Health Sciences (LHS) of the University of Illinois at Chicago (UIC) has been involved in a number of outreach projects funded through National Library of Medicine (NLM) grants. Intending to build on the success and the knowledge gained in past projects, librarians at UIC extended their outreach efforts through a project including local community groups working on environmental health issues at the grass roots level.

The goal of the environmental groups cooperating on this project was to improve the health in their communities by improving the environmental conditions of neighborhoods. The purpose of the project was to train community representatives to access online public health literature to support this goal. In turn, these representatives would act as information resources to the constituents in their neighborhoods. Some lessons learned from past projects dealing with outreach to health care professionals could be applied to this outreach project, but many unanticipated issues arose when working with this group of community leaders. This paper distinguishes between the needs of these two groups and describes the steps necessary for success when working with community groups.

BACKGROUND

A survey of the outreach literature showed a number of key elements desirable for the success of an outreach project. Dorsch, who extended outreach services to rural

health professionals, mentioned the concept of "readiness" [2]. Her readiness concept included not only the physical fact of having access to computers, but the more intangible factors of exposure to computer applications and an understanding of what is involved in searching online databases. Dorsch stressed the importance of repeated exposure and repeated training. Martin et al., reporting on an AIDS outreach project to community-based organizations, documented the need for a liaison person at each outreach site to ensure project success [3]. These authors also found it helpful for outreach librarians to be members of the target community. Like Dorsch, Martin et al. found that repeated contact with the community-based organization was invaluable. While Pifalo, who studied outreach to rural health professionals, suggested that ensuring utilization of health information by remote health professionals might be characterized as an unending task, she too found personal contacts were of utmost importance [4]. Banks et al., who did a thorough job of chronicling outreach issues and challenges, described the need to be flexible in scheduling training, because sessions often had to be rescheduled in their project [5]. Banks also found that more than one session was often needed for MEDLINE training, especially for individuals with minimal background in computer literature searching. Banks and colleagues found that instructional time planned for sophisticated searching was often replaced by instruction in basic computer skills. These authors also found that outreach librarians were frequently used as technical computer consultants due to the lack of computer experience and background among participants. Finally, Banks concluded that 70% of the needs assessment respondents preferred a one-on-one training format. All of these authors identified a need for a lower level of training than anticipated, the ongoing nature of training, the importance of the liaisons in the process, and the need for continued contact after the end of the projects.

PROJECT DESCRIPTION

LHS librarians sought to link a number of existing community-based organizations together to help fight asthma and lead poisoning in children through an effort called the Chicago Environmental Public Health Outreach Project (CEPHOP). CEPHOP was a cooperative effort with UIC librarians and a physician affiliated with both UIC and the Cook County Hospital (CCH) Department of Family Practice. Some of these community groups were officially affiliated with CCH while others, such as environmental grass roots organizations and public grade schools active in their communities, had loose affiliations. Seven sites joined the project: two Chicago public schools, three community action groups, and two public health organizations. One of the public schools was located in an economically depressed section of the city. The other public school was located in a tightly knit Latino neighborhood that also included one of the community groups. The two other community groups, located on the west side of Chicago, had been organized to tackle housing and environmental issues. The two public health groups were affiliated with CCH, a large, urban, publicly supported institution serving a mostly uninsured population. The opportunity to support UIC's Great Cities Institute—aimed at improving the quality of life by creating, disseminating, and applying interdisciplinary knowledge about urban affairs—motivated staff to participate in this outreach initiative.

The stated aim of CEPHOP was to design a public health network in Chicago to improve access to environmental public health information resources by the public health professionals and community groups working at the local level. CEPHOP provided equipment, PubMed and Internet training, and document delivery directly to community organizations and schools whose target groups were patients affected by environmental health hazards leading to asthma and lead poisoning. The community groups and schools would thus increase their effectiveness in providing access to information and information resources on environmental health and toxicology directly to those who needed it.

The five stated goals for the project were to:
- provide electronic access to environmental health information to community-based organizations, schools, and health centers in Chicago whose populations were facing health hazards and problems due to environmental pollutants and toxins in the community;
- train staff at each participating site to access and fully utilize environmental health and toxicology related information in databases and other sources;
- create a Website, linking CEPHOP consortium members to bibliographic and nonbibliographic environmental health and toxicology information on the Internet;
- provide document delivery of articles retrieved from NLM's biomedical databases; and
- develop introductory PubMed and Internet Grateful Med training material in Spanish emphasizing environmental health information.

An advisory committee comprising the principle investigator (PI), the physician co-PI, several LHS librarians, and a representative from each of the sites was formed. This group met at the inception of the project and every six months to evaluate progress and to make recommendations for effectiveness. The project administrator was to contribute 5% full time equivalents (FTE), and the outreach coordinator was to contribute 20% FTE.

A series of five training classes—two on MEDLINE, two on Internet search skills, and one on Web page design—was scheduled. A CEPHOP Web page,‡ link-

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‡ The Chicago Environmental Public Health Outreach Project (CEPHOP) Website may be viewed at http://www.uic.edu/depts/lib/projects/resources/cephop/.

ing to pertinent environmental Websites, was developed, and an electronic discussion list was established.

Each of seven sites received a computer workstation with Internet access provided by the project. The outreach coordinator assembled and delivered a workstation to each of the sites. Each site used the computers and gathered information in different ways. The Department of Family Practice of CCH, armed with the laptop computer and spirometer, tested the entire freshman class of an inner city high school for asthma, a chronic, often underdiagnosed condition. Once students were correctly diagnosed, they were instructed in ways of finding online information regarding asthma management. One of the community groups used the computers to access information regarding toxic materials slated to be stored in their community. Using this information, they sought to block the building of a garbage collection site in their neighborhood. One of the schools sought to teach students ways of locating alternate cleaning solutions, such as vinegar and water for cleaning windows, which are environmentally friendly and less likely to trigger asthma in individuals sensitive to commercial products.

THE PROJECT RESULTS VIEWED FROM THE STATED GOALS

Goal 1: provide electronic access

Lessons learned from previous outreach grants were valuable in this public health project but often did not deal with the conditions encountered with community groups. Additional challenges led librarians to conclude that the electronic access needs of the individuals working in the community group settings differed from those working in more formal settings. For example, providing electronic access to environmental health information, the first goal, was achieved but only after great delay at some of the sites. Simply getting a telephone line installed proved to be an unanticipated obstacle. Once computers were installed at the sites, technical problems proved insurmountable to some community groups, because they had no institutional system support. The project coordinator spent an unanticipated amount of time offering technical support. Some needs were well beyond the technical knowledge of reference librarians.

Goal 2: train staff

Training staff at each site to access and fully use environmental health information, the second goal, also met with mixed results. The first classes offered were in MEDLINE, but few of the participants at the community groups were ready for this level of information. Classes were often cancelled, or no one came to scheduled classes. With inactive computers at two sites, because telephone lines were not yet installed,

participants had no way to practice searching skills once they returned to their sites. Librarians realized that more basic computer skills needed to be taught. Workers at the community sites had a wide variety of computer skills; a few were very sophisticated, but most lacked computer experience.

Participants were not willing to expose their lack of knowledge, until they became more comfortable with the outreach coordinator, so, in some cases, valuable time was lost teaching the wrong set of skills. Once this obstacle was overcome and participants were taught at the appropriate level, it became obvious that some of the groups did not know how to fully utilize the information now available to them.

Goal 3: create a Website

The third goal, creating a CEPHOP Website, was achieved, but few sites indicated that they used it to any extent. While the goal of creating a Website was technically met, the real aim of the project, to design a public health network in Chicago and to strengthen the community partnerships, was not. The tenuous nature of the community groups themselves, some staffed only by volunteers or part-time help, seemed to inhibit cooperative efforts.

Goal 4: provide document delivery

A process of providing document delivery of articles, the fourth goal, was put in place, but only eight articles were requested throughout the life of the project. While health care professionals need literature published in medical journals, few of the sites involved in this project exhibited a need for this type of information. This project was completed before many journals were readily available electronically, but, given the experience from the project, it is doubted that community groups would have tried to access electronic journals.

Goal 5: develop Spanish language MEDLINE training materials

Developing introductory MEDLINE training materials in Spanish, the final goal of the project was not necessary, as NLM developed Spanish language materials soon after the project was underway. However, it was not clear if these materials were deemed of value by the participants.

Thus, while the explicit *goals* of the project were achieved at various levels, the primary *objectives* (to strengthen community partnerships, to implement public health programs, and to increase the effectiveness of community groups) to which these goals were aimed were not completely achieved.

DISCUSSION

The past experience and readings upon which the project was based, that of providing health information to health care professionals in more formal settings, was not entirely helpful or applicable to community leaders working in less formal settings. The project had been based on the assumption that the participants would be familiar with such concepts as the medical literature, the Internet, the wealth of government information available on the Internet, and the ways that information could be useful to their community health projects. On the whole, this assumption did not reflect reality. The community groups and schools were, in fact, a disparate group with different strengths, goals, issues, abilities, and agendas. They did not necessarily see the need or use for the Internet-based information they were being taught.

Lessons learned from this project that can be applied to other outreach efforts include the following.

Know your constituents and what they perceive as their needs

Community leaders have different information needs than health care professionals. These needs must be clearly articulated to be met. Training community groups in the complexities of MEDLINE proved less successful than in other outreach projects. The kind of information provided in MEDLINE, geared as it is to health care professionals, was not the type of information these groups needed. MEDLINE*plus,* which might have been more appropriate, was not yet available during this time period. For this project, a concentration on Websites containing public health information specific to the individual needs of each site might have been more helpful than a focus on MEDLINE. While librarians thought a Website and a discussion list would be valuable tools for communicating, the sites chose not to use these vehicles.

The needs assessment must go beyond the equipment needs to include information needs. While the timetable of the grant-writing process often makes an in-depth needs assessment difficult, it should be a top priority. If a needs assessment is not done adequately, the resources taught will address the information needs as perceived by the librarians, not the needs as perceived by the communities. Additionally, such concerns as hours available for training need to be considered. Community groups do not ordinarily meet during the traditional working hours for academic health sciences librarians. Classes will be better attended if they are scheduled during regular meeting times, often in the evening, as well as if they are filling a perceived need.

Base the approach of the project upon an appropriate theory

Well-grounded theories provide a context within which to work and save time and effort by directing efforts appropriately. This is true no matter what the setting. Knowing various change theories is an important part of having an accurate understanding of a particular situation. The experience upon which the CEPHOP project was based, literature written about outreach to health care professionals, was not particularly relevant to community leaders. The majority of the sites were, in fact, not managed by health care professionals. In this case, research needed to be done regarding successfully working with community, grass-roots organizations. While more research would not necessarily have guaranteed success, it might have alerted librarians to issues that were initially overlooked.

Determine how the sites envision using the outreach support

When dealing with professional health care providers, there is always an obvious end product: improving the health care of patients through appropriate intervention. With community groups or schools, the end product is not as obvious. This is another part of the readiness factor discussed by Dorsch. It is necessary to know how an outreach partner intends to use the tools and information the project will provide. Clearly articulated goals and objectives are essential if they are to be achieved.

Identify the responsibilities of all parties

It cannot be assumed that all partners in a funded project have the same expectations or agendas. While health care professionals tend to work in licensed environments with state regulations and rigid standards, community organizations tend to be less formal or regulated. Problems such as computers not installed in a timely manner or classes missed can be more readily solved, if responsibilities and consequences for unmet agreements are clearly spelled out. A clearly articulated statement of what is expected of all parties, agreed upon by all, is advisable.

Verify participants' self-evaluations of computer skills

Words like ''beginner level'' or ''intermediate skills'' are too vague to be useful in self-assessment tools. Health care professionals are likely to have been exposed to computers in their classes, clinics, or hospitals, however cursory that exposure. Grass-roots organizations, by definition, are not supported by institutions with sufficient resources to buy computers, train employees, and sustain a computerized environment. Employees or volunteers may have very little

experience but be at an intermediate level compared to their coworkers. This is one more aspect of the readiness factor that needs to be considered. Self-reported level of computer skills proved not to be a measurable standard. A pretest may be given to help determine level of competence to qualify as beginner, intermediate, or advanced computer users.

Provide for technical support

Although Banks et al. mention the need for technical support in relation to health care groups, it deserves to be reemphasized, because it is so important for grass roots groups. Unless a site has inhouse technical support, most of the hardware or software problems encountered will end up being the responsibility of outreach librarians. Finding lost passwords, detecting and eliminating computer viruses, or connecting equipment to computers can become time-consuming problems for outreach librarians. Early discussion should make clear what technical expertise is to be supplied by librarians and what will be purchased by outside technical consultation.

Choose site liaisons with care

Although both Martin and Banks mention the importance of site liaisons when working with health care professionals, this point cannot be overemphasized with community groups. Outreach librarians cannot be at the sites nearly as often as needed, so dedicated site liaisons are indispensable. The relationship between the librarians and the liaisons is the conduit through which the information flows. The amount of time that outreach projects require is often underestimated or, at best, uneven. Great demands for time at uneven intervals can be better managed, if site liaisons and librarians cooperate in meeting the needs of the sites. The probability of continuing the project after the funding period will be enhanced by the presence of invested and knowledgeable site liaisons, who view the project as their own and not as one imposed by outreach librarians. The repeated exposure and training deemed necessary by both Dorsch and Pifalo will be more assured if onsite liaisons possess both the vision of the project and the skills necessary to find information for its realization.

Be sensitive to cultural issues

Libraries and academic centers share a unique culture. Community groups share their own unique cultures. There will inevitably be various approaches to working on outreach projects among the participants. If anticipated, these differences can enrich a project with diverse thinking. Recognizing early that differences will arise enables the participants to learn from them and profit from the exchange.

Profit from the experiences of others

The Pacific Northwest Region of the National Network of Libraries of Medicine and the National Library of Medicine have produced *Measuring the Difference: Guide to Planning and Evaluating Health Information Outreach.* While not available during this project, the guide is an invaluable resource for planning outreach [6].

CONCLUSION

Librarians have had much experience and success in outreach to both health care professionals and consumers. Translating this success to community groups working in the public health arena is a logical next step for librarians. While traditional consumer health is focused on individual patients with their own problems, public health focuses on consumers as groups. Community groups, organized to fight environmental waste or the increasing incidence of asthma, need a different kind of information. Their work differs from that of traditional health care professionals but can be effective in implementing change to improve the health of their communities. Librarians can form partnerships with these groups to provide the means of finding this information. Public health information for community groups is one more form of consumer health information.

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