

COVER SHEET

1. Title of the Project

Medline in the Mountains

2. Identification of the project if it is a 2003 *Access To Electronic Health Information* subcontract

Yes, this is a 2003 Access to Electronic Health Information subcontract.

3. Name of Institution

Poudre Valley Health System

4. Location of Institution

Fort Collins, Colorado

5. Name, Mailing and E-Mail Addresses, and Voice and Fax Numbers of Person Submitting Report

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6. Inclusive Dates of Final Report

June 2003 through May 2005

7. Date Submitted

November 30, 2005

NARRATIVE DESCRIPTION

1. Summary/Introduction:

Summarize your accomplishments on the project.

This project provided and enhanced access to electronic health information for consumers in rural and geographically isolated communities along Colorado's northern Front Range. We assessed the health information needs of library staff, patrons, and consumers; trained library staff and volunteers to provide health information services to library patrons, consumers, and community residents; educated library patrons and consumers on how to identify, access, retrieve, evaluate, and use print and electronic health information resources and services; and enhanced access to electronic health resources for librarians, patrons, and consumers.

2. Geographic region/number of counties:

List the geographic regions or all the counties that were impacted by the project.

This project reached the rural and geographically isolated communities of Berthoud, Estes Park, Red Feather Lakes, and Wellington, which are located along Colorado's northern Front Range.

- Berthoud Public Library serves patrons in three counties (Larimer, Weld, and Boulder). The population of the Town of Berthoud is currently 4,839 and the total service area population for the Berthoud Public Library is 11,503.
- The Estes Valley Public Library District serves a population of approximately 11,000 in an area that includes the town of Estes Park (an expensive tourist destination) and is bounded by Boulder County (south), Glen Haven (north), Drake (east), and Rocky Mountain National Park (west).
- Red Feather Lakes, a village of approximately 400 year-round residents, is 50 miles northwest of Fort Collins, Colorado, the closest city that offers health services. The Red Feather Lakes Community Library is operated by the Red Feather Mountain Library District whose service population is approximately 3,700 full-time residents in the communities of Red Feather Lakes, Crystal Lakes, Glacier View Meadows, Green Mountain Meadows, Deer Meadows, Hewlett Gulch, Upper Poudre Canyon, and rural areas between. These communities are rural mountain subdivisions in unincorporated northwestern Larimer County.
- The current population of the Town of Wellington is 3,000 with approximately 3,500 people living in the surrounding unincorporated county area. The Wellington Public Library service area population is 6,000.

3. Collaborations/Partnerships:

Include names and types of organizations with which there was collaboration at any time during the project. Provide the current status of the partnerships, challenges encountered, and lessons learned.

The lead institution for this project was Poudre Valley Health System in Fort Collins, Colorado, which is a locally owned non-profit organization that operates Poudre Valley Hospital (253 beds) and other health services in Colorado, Nebraska, and Wyoming. Poudre Valley Health System's Medical Library was established in 1979.

- The Berthoud Public Library is a municipal library providing library services to the residents of the Town of Berthoud, Colorado and its surrounding rural area located in southeastern Larimer County. The Library is open 47 hours a week including some evenings and on Saturdays. Along with several dozen volunteers, the Library is staffed by a full time professional library director and a part time assistant.
- The local women's club formed the Estes Park Public Library in 1916. The Estes Valley Public Library District was formed in 1988, making the Library an autonomous taxing entity. The current library building was constructed in 1991 and renovated and expanded in 2001. The Library is on Estes Park's main street (Elkhorn Avenue), anchoring the downtown area with the adjacent Estes Park Municipal Building. The Library district employs a staff of 16 (12 FTE) and enjoys the contributions of more than 50 volunteers.
- The Red Feather Lakes Community Library was organized by a local women's group in 1969 with 200 donated books on shelves in the basement of the community building. In 1986, local donations of land, time, money, and effort provided a new attractive and functional library centrally located in the community. For many years, the Library was operated by a nonprofit foundation and run with a primarily volunteer workforce of over 50 people. In 1995, a part-time library director was hired to help professionalize the Library. In 2001 the Red Feather Mountain Library District was formed; the first year of the Library District operation, visitors and circulation both increased by more than 70 percent over 2000. The Library is open 38 hours a week and is currently staffed by a full-time director and full-time children's librarian. Volunteers still contribute over 2000 hours annually.
- In the late 1970's a group of Wellington area citizens began meeting with the aim of establishing a library in the Town of Wellington. The goal was to provide easily accessible library services for those that either couldn't, or preferred not to, drive to Fort Collins to use a library. After much hard work by volunteers, the Wellington Public Library opened in June 1979, with a few hundred used books on the shelves. In 1980 the Library moved into two small offices in the new Leeper Community Center. Ten years later the Library was packed with over 8,000 books crowded into 450 square feet. That led to the 1992 Library expansion, which resulted in the present 1,800 square foot facility.

Current status, challenges, lessons learned

With staff turnover at three of the four participating libraries, the current status of the

partnerships is limited. We learned that for an outreach project such as Medline in the Mountains to operate effectively, the participating libraries need to be stable in staffing, leadership, vision, and administration. The Poudre Valley Health System librarian continues to e-mail information of interest to the participating public librarians and is available for informal consultation as needed.

4. Training:

In the final report, provide a summary of the training events and participants:

- *Total number of sessions conducted as part of the project*

16

- *Total number of sessions in which half or more than half of participants were from minority populations*

None.

- *Total number of participants in the project's sessions*

275

- *Breakdown of participants by:*

- *Health care or service provider*

One (primary care physician with offices in Red Feather Lakes and Wellington)

- *Health sciences library staff member*

One (PVHS medical librarian)

- *Public/other library staff member*

22

- *Member of the general public*

251

5. Training sites:

Provide a brief description of training sites.

Poudre Valley Health System's Medical Library is located in The Legacy Center, which

also houses the Learning Center and Educational Media Services. This state-of-the-art facility at Poudre Valley Hospital includes four meeting rooms, offices for staff, a computer laboratory, expanded shelf space for the Library's collection of books and journals, quiet reading spaces, and a satellite downlink/video viewing room.

- The Berthoud Public Library has four public Internet stations, four Internet stations for staff, and one shared station. Internet access is supported by an ISDN line.
- Internet access at the Estes Park Public Library is provided via T-1 line. There are eight Internet workstations for patron use and ten Internet stations for staff use.
- Red Feather Lakes Community Library has six Internet workstations for patrons and two for staff; all are on a DSL line.
- Wellington Public Library has three Internet workstations for staff and two for patrons. Internet access is provided via an ISDN line.

6. Exhibits:

List all the exhibits connected with the projects (if applicable). Include the meeting name, dates, location, estimated number of contacts made, demonstrations given and general impressions of success.

None.

7. Resource materials:

Provide a brief description of any materials that were developed for training or for promotion/marketing (include newspaper announcements, brochures, etc.). Include copies of materials developed. (Do not send promotional materials developed by the National Library of Medicine) If web-based resources were developed, please provide the URL for the site where the materials are located.

URLs for all web-based training materials should also be sent the National Training Center and Clearinghouse (NTCC) for inclusion in the Educational Clearinghouse (<http://nml.gov/train/>). Provide verification that this has been done or provide a date by which it is expected that URLs of web-based training materials will be sent to the NTCC's Educational Clearinghouse.

Web-based training materials developed for this project include the following:

Evaluating health websites

<http://www.rflibrary.org/medline/EvaluatingSites.html>

Searching MEDLINE and associated databases

<http://www.rflibrary.org/medline/HowToSearchMEDLINE.ppt>

Getting started with PubMed health databases

<http://www.rflibrary.org/medline/GettingStartedPubMed.doc>

8. Web sites:

Detail the current status of web sites created as part of the project. Include URL, plans for future maintenance, and impact.

A web site was created as part of this project: www.rflibrary.org/medline. This site identifies MEDLINE in the Mountains as a partnership between Poudre Valley Health System and the Berthoud, Estes Park, Red Feather Lakes and Wellington libraries in northern Colorado. The site also identifies the National Network of Libraries of Medicine as the primary source of funding for the project. The web site provides patrons with hints to make their online research easier. They can also learn definitions of basic medical terminology, find links to reliable online sites and databases, and take the user survey. The website is currently being maintained by the Red Feather Lakes Community Library.

9. Document delivery and reference services:

If document delivery services and reference services were provided, please provide appropriate statistics.

One patron made a phone request through his library's reference desk for a one-page article in the PVHS library's collection; the PVHS librarian simply faxed it at no charge.

10. Approaches and interventions used:

Describe the specific steps or activities used in the following areas: identifying and scheduling sessions; promotion/marketing; training; personnel/staffing; web site development.

We had planned on including a larger number of volunteers in the all-day training session at Poudre Valley Health System medical library, but it was difficult to get volunteers, and in some cases staff members, to commit to such an extensive training opportunity that entailed a significant amount of time and travel away from their home libraries. Consequently, we trained primarily staff members from libraries at the all-day training, and utilized a train-the-trainer format to train volunteers at their home libraries. Smaller training sessions in each library, rather than large group "classes," were more adaptable to the local community and could be offered more often and at different times.

The librarians reported that searching for medical information is often a one-time or as-needed activity for patrons. Rather than large group classes, they found one-on-one training to be a more effective ongoing way to train patrons on how to search the Internet for medical information. So the local community libraries followed a similar model of

“small group” (1 or 2 people) training sessions to educate patrons and community members on how to search for electronic health information. They found that with this format they could teach people the searching technology as well as basic medical terminology and also assist patrons with more targeted searches relevant to their specific needs.

Many patrons in these rural areas seemed comfortable in waiting until they have a medical emergency before they gather information. However, we believe many patrons could benefit from the kind of information the project offers on an ongoing basis. So we adjusted our marketing strategies to make patrons aware of the value in what is offered. Our activities shifted from just offering classes on "how to search for medical information" to using creative ways of getting patrons into the library where we could introduce them to the technology.

The Red Feather Lakes Library hosted a mini health fair, at which the Medline in the Mountains project was promoted. The Red Feather Lakes Library also offered two community walking events. At these walks, volunteers wore pedometers that were available for check out at the library. When the walk was over, librarians and volunteers showed patrons how to look up additional information and questions using online resources.

11. Evaluation:

How was the project evaluated? What results were achieved based on the objectives of the project?

In August 2003, patron surveys were distributed at Estes Park, Red Feather Lakes, and Wellington Libraries. Surveys were used to determine how patrons found health information on the Internet, and their perceived successes and failures in accessing electronic health information. Approximately 300 - 500 patrons saw the survey and a notice explaining the project. The survey was completed by 57 patrons. In addition, Estes Park and Red Feather Lakes Libraries interviewed patrons about their use of the World Wide Web and their interest in training on how to find electronic health information.

Most Internet users who answered the survey seemed very confident in their ability to find what they need. Others who were not comfortable searching on the Internet did not see the value of learning how to find information there. In other words, patrons did not appear to differentiate between health information and any other information they search for on the Internet. Patrons who were comfortable with the technology also seemed to assume that they were making sound decisions about the credibility of the information they found.

Pre- and post-surveys were developed to gauge pre-training and website visit information seeking behavior and expected behavior changes. People who took part in trainings and visited the website seemed to be quite sophisticated with Internet searching, well educated, and interested in learning more than they already know. Patrons reported that

the website and the electronic medical information resources available were generally very useful and that the project was a wonderful resource for providing up-to-date medical information. The website in particular was a great help in guiding patrons to trusted, authoritative health information. Generally they did not need to learn how to conduct searches. We had little interest from those in the community who were not comfortable with Internet searching.

12. Problems or barriers encountered:

Provide details on problems encountered in the areas of promotion/marketing; training; equipment/telecommunications; personnel/staffing; and web site development.

Staff Turnover: Three of the four libraries changed directors and staff, which literally brought the program to a halt in Wellington and Berthoud. Keeping rural libraries involved in such a complex long-term project was very difficult in the midst of such high staff turnover.

Commitment/Leadership: Most rural librarians are already multitasking at exceptional levels and need to have an incentive to stay on task with grant compliance. Also, lead staff changed in three of the four libraries, which made ongoing commitment difficult.

Staff Training: There was not enough time to cover all sources of online health information in the all-day training session. The PVHS librarian started but didn't complete a series of e-mail discussions for these; a key stumbling block was that he hadn't fully researched discussion groups, especially how to identify them.

Patron Training: Many patrons have computers at home, so searching for medical information in privacy is often preferable to attending a large, public class and asking a reference librarian about a potentially embarrassing medical condition.

Equipment/Telecommunications: One staff training session was delayed for an hour due to the host library's web connection being down.

13. Continuation plans:

Report on how you plan to continue the project. Will all or some of the project's activities continue? Who will provide the funding and staffing to do so?

In the Red Feather Lakes community, the Library will continue ongoing patron education and training on researching health information online. The Health Walk at Fox acres will continue annually with funding and staffing from Fox Acres as well as donations from local businesses and Red Feather Lakes Library staff. The school health walk will also continue with funding and staffing from both Poudre School District and the Library staff. Formal activities are not expected to continue at the other participating libraries in Berthoud, Estes Park, and Wellington. However, staff at these libraries are trained and knowledgeable about referring patrons to appropriate electronic health information

resources.

14. Impact:

Include information on the perceived and actual impact of the project on the library, institution, or consortium. This can include the effect of the project on the library's image, increased utilization of the library, etc.

Most important to the goal of this grant, all the local librarians who participated in this project are better equipped to answer questions about online resources and to help people find health information or refer them to the Poudre Valley Health System medical librarian. Patrons are much more aware of the existence of online health information and are more likely to ask for assistance in finding it. They are also better educated about finding credible health sources.

In Red Feather Lakes, the Health Walks were very well received and sparked an interest in nutrition and exercise among community members. Several other outdoor activities were also generated through the partnerships established as a part of this project. For example, the Fox Acres' Mutt Strutt and a golf tournament to raise funds for a defibrillator for the local medical clinic (\$3000 raised) will continue annually. The schoolchildren in Red Feather Lakes were very excited about the step counters and several of the kids still wear them to keep a log of their activity.

15. Recommendations for improvement:

Include suggestions for alternative methods, training materials, promotional materials, etc.

Recommendations from the medical librarian at Poudre Valley Health System include first researching all types of online health information available, then identifying advantages and disadvantages of each resource, and finally determining how to find the resources before providing training.

Another recommendation is to concentrate on wellness activities when the objective is to reach larger numbers of patrons with information, education, and training. While the health walks and wellness activities were very popular among community residents, we had a more difficult time generating interest in the online resource training except from people were ill or had close friend/family ties to someone who was ill.

16. Responses to follow-up questions (attached):

If answers to the follow-up questions are contained elsewhere in your report, indicate where they are located.

FOLLOW-UP QUESTIONS

1. Were your original project goals and objectives met? If not, why not?

Through the web-based resources and promotional events institutionalized in most participating libraries, this project was successful in providing and enhancing access to electronic health information for underserved consumers in rural and geographically isolated communities along Colorado's northern Front Range. While our formal, large group training sessions reached fewer library staff, volunteers, and patrons than we originally anticipated, we developed effective small group and one-on-one training strategies that fit the culture of the participating libraries and communities. This training style will simply take more time to reach the full target population.

2. What significant lessons were learned which would be of interest or use to others conducting outreach projects? Which strategies were the most effective in implementing the project?

One component of the project was to partially subsidize Loansome Doc requests from public library patrons. Although this service was advertised to patrons, it was never used. Poudre Valley Health System staff resources were particularly helpful with complex reporting and grant administration, which would have been daunting to all of the librarians given their normal duties in their libraries. Additional information can be found in Question #10 (Approaches and interventions used) of the Narrative Report.

3. If you were to start all over again, what, if anything, would you change about your goals, project plans, etc.?

We might consider obtaining a 100% agreement from librarians who make a commitment to actively participate in the program. Perhaps it would even be appropriate to use a financial incentive to assure that librarians will complete the project, such as reimbursing the libraries for programs completed. Additional information can be found in Question #12 (Problems or barriers encountered) of the Narrative Report

4. What advice or recommendations would you give to anyone considering a similar outreach effort?

An important piece of advice for local libraries considering a similar outreach effort is to involve your local health-care providers and partners in the medical community. We found that when a health care provider suggested someone go to the library to get information about a condition, disease, or prevention strategy, then there was much more interest in the resources available. Additional information can be found in Question #15 (Recommendations for improvement) of the Narrative Report.