“Access to Electronic Health Information for Denver"

FINAL REPORT
Elaine Connell, Reference Librarian
The Denver Public Library

Narrative Description:

1. Summary.

Through a grant provided by the National Library of Medicine, the Denver Public Library (DPL) and Denver Healthy People 2010 (DHP) have markedly improved their web sites and their health information services. The project specifically targeted residents of Denver's Whittier neighborhood as people in this community are more likely to be African American or Spanish-speaking and on average younger, poorer and at higher risk for poor health outcomes than residents in most other parts of Denver. The DHP site targeted professionals and community health leaders serving and advocating for this community.

DPL contracted with a Health Educator, and DHP extended the hours of their Program Administrator for this work. The Health Educator conducted key informant interviews and focus groups to assess specific needs for health information. DPL project staff designed web sites in English and Spanish, tested the sites in the community, and provided training for many DPL staff in the use of these sites. The DHP site was developed in a similar fashion. Outreach presentations and trainings are now being provided at both the consumer and professional levels.

The DPL web site features sections on learning to conduct Internet health searches, low literacy resources, and links to many Denver agencies providing health related assistance. Special consideration and focus was given to health promotion/disease prevention topics and a section on “Making Healthier Communities” reflects the strong influence of the DHP collaboration. The DPL site and the DHP site link to one another, facilitating the search process for consumers who want to get involved in community health, and for professionals who want to find materials for their clients.

Through this partnership and the vital community participation, the Denver Public Library is gradually becoming a recognized resource for health information in Denver. Tools and relationships are now in place so that continued training, outreach and site development will result in ever-increasing numbers of people throughout our region choosing to include the electronic resources of the Denver Public Library, Denver Healthy People 2010 and the National Library of Medicine in their health information search.
2. **Geographic regions impacted by this project.**

This project touched people's lives throughout the Denver Metro Area, in many counties of Colorado, and in at least two other states (Iowa and Pennsylvania, as respondents to our online survey indicated). We know of individuals who tried our site at least briefly in Tanzania and Nepal, as well!

It is too early in this work to document the impact of these new resources on the health of individuals and the communities we targeted.

- We know that many Whittier residents are aware of this resource, but most of the targeted population there remain nonusers at this time.

- We know that DHP coalition members have received several emails about these new sites, and training opportunities for using them, but we don't know how many are using them effectively at this time.

- We know that librarians at DPL, CCHILL, CCML, and throughout Colorado have received notice of the launch of these new web sites. We received information from 11 libraries throughout the state that take a special interest in providing health information assistance for consumers, and we have listed these in a "For Search Assistance" section of our "Getting Started" page (as the CCHILL List of Participating Libraries). We don't know how many of these librarians are actively using these resources to serve their customers.

- We know that literature went out to several major 9Health Fair sites in April, 2004, but we don’t know how many people picked up that literature and put it to use in searching for health information.

- We know that DCTV broadcast our interview, and we know that at least three people caught the show. We don't know how many were influenced to try these sites, however.

- In the following diagram, each star represents a significant contact with librarians as described.
Many in the Denver Metro Area have received promotional literature and invitations to training sessions through the 9Health Fair, the Congregational Health Partnership, broadcast emails, and DHP Coalition announcements, as well as presentations at the Colorado Department of Public Health and Environment. The Denver area will continue to be our primary focus for this outreach, but we will continue to promote these resources as opportunities arise to librarians throughout the state.
3. **Collaborations and Partnerships during this project.**

The following organizations have played a significant role in this project, and are listed in chronological order of the time they became involved. The nature of the relationship with DPL is described. In addition, we have had brief encounters of interest with many other organizations.

**Denver Healthy People 2010** - DHP has been our partner from the outset of the project. At the time of the writing of the grant proposal, we were barely acquainted. Though we have worked intimately together on the objectives of this project, we are just beginning to learn about one another. In the end, both have profited, and the missions of both agencies have been advanced far beyond what either of us could have accomplished alone. We will continue working together, exploring how we might best serve the needs of our community through improving access to electronic health information.

**Denver Alliance on Tobacco and Health, DATH** - Tracey Richers-Maruyama consistently participated on the DHP2010 Education Committee. When our new sites were launched, she afforded us opportunity to do the televised interview on their monthly program. We anticipate another in early 2005.

**Parroquai de la Anunciació** - Annunciation Church gathered our first focus group, and was the host site for our display at the 9Health Fair.

**Whittier Neighborhood Association** - included our news in their newsletter on several occasions at no cost. We presented introduction and updates at their Association meetings on three separate occasions. They have recently installed a new committee, targeting health issues in the community, and I have contacted the chairman of that group directly.

**Whittier Drum Project** - Our Health Educator did a key informant interview with Neil Stone, a licensed social worker doing adolescent and adult psychotherapy in the Whittier Community. He leads the Whittier Drum Project, where dozens of children, teens and their parents can learn African and Latin rhythms together, strengthening the sense of community in this neighborhood. The group performed at the Community Celebration in May.

**Donor Awareness Council** - Following her work with us, our Health Educator, Lee Shaughnessy moved on to become the Community Outreach Program Manager at the Donor Awareness Council. She continues to share with her contacts about the new Web sites, and encourages individuals to use the library in their search for health information. She spent one of her Sunday's with us at a Kaiser Health Fair, and plans to lead our DPL Health site Advisory Committee. She loves MedlinePlus, too, and promotes it enthusiastically.

**University of Colorado Health Sciences Center/ NN/LM** - Stephanie Weldon provided the innovation for the CCHILL (Colorado Consumer Health Information Librarians) of which Elaine is a member. We have provided the group with a brief demonstration of our
site in March, and we include many of them in the "For Search Assistance" portion of "Getting Started" on our English Web site, and in training staff and others on quality referrals whenever a question goes beyond our individual level of expertise. In addition, Stephanie worked with us in the September staff training, and provided us with MLA CEU accreditation, a big draw for DPL staff.

**Central Colorado Area Health Education Center** - We got acquainted late in the process. Suzy Harrington, Director of Education at the Central Colorado AHEC wrote a letter of recommendation for our application for the National Commission on Library and Information Science award. In addition, she attended one of our Train the Trainer classes, and will be a member of our Advisory Committee. We have agreed to participate in the Go Local project that Suzy has proposed, and provided a letter of support for that project.

**Denver Community Television, DCTV** - Provided the expertise, studio, staff to film and broadcast an interview and the NCLIS award celebration. In addition, they provided us with videotaped copies of both programs at bargain basement rates. The interview tape promotes our partnership and our web sites quite well, though it contains some unfortunate typo's. The NCLIS program has disappointing sound quality. We simply could not do a video on our own better than the ones we have done with DCTV, but we hesitate to do another before we have lots more time to devote to planning, filming, and editing. This remains an option for the future.

**Colorado State Library** - Sent out fliers to approximately 650 libraries throughout the state in June announcing the launch of our new web sites. They also work closely with the **Colorado State Board of Education**, who gave the library $150 to supplement this NCLIS award and the project it represents.

**Congregational Health Partnership** - Invited Elaine to present at their meeting and sent our flier throughout their churches. This represents a readership of 2,200 in the Metro Denver area, at 36 churches. Most of these churches are in the heart of the city, with many members who are uninsured and underserved. At the meeting, those present were all active in or near the Whittier neighborhood.

**Sister Mary Lucy Neighborhood Network Center** - The Director of this small Computer Lab was very interested but unable to come to our Train the Trainer Class. Instead, I will go to this Center on December 7th. She trains people in the community to begin using Internet, and looks forward to showing them our site.

4. **Training**
Outreach activity reporting forms at [https://staff.nnlm.gov/extra/](https://staff.nnlm.gov/extra/) have been filed on all of the following training sessions to date. Computer Comfort sessions were very informal and have not been recorded in detail.

- Total number of sessions conducted as part of the project - 10
  - 76 Total Attendees:
    - 4 Introductory Classes with 40 Participants
    - 4 Train the Trainer Classes with 28 Participants
    - 1 Intermediate Class for DPL Staff only with 6 Participants
    - 1 Hands-On with New Users with 2 Participants
    - Computer Comfort sessions with a total of approximately 25

- Total number of sessions in which half or more than half of participants were from minority populations - None, except for the informal Computer Comfort sessions which involved mostly minority populations.

- Total number of participants in the project’s sessions - Approximately 100.

- Breakdown of participants by:
  - Health care or service provider - 7
  - Health sciences library staff member - 1
  - Public/other library staff member - 59
  - Member of the general public - 33 (Counting the approximately 25 in Computer Comfort.)

5. **Training sites.**

March, 2004 - We held 4 training sessions, each 1 1/2 hours, for a total of 40 DPL staff. Three of these sessions were held in branch library meeting rooms. We projected the new web sites on a screen or wall, as trainees watched. In each case we demonstrated highlights of these brand new (prior to launch) Web sites, and invited staff to try a hands-on exploration following the demonstration session on available branch PC's prior to opening the branch to the public for the day.

The fourth session was held in the Library Lab on the 4th Floor of the Central Library. Trainees sat at tables and viewed the new sites on a large screen TV. This lab has 18 PC's available, and hands-on practice was encouraged following the session.

September, 2004 - Staff Training was provided at a more in-depth level. Five librarians and one Educational Programming Assistant attended. The session was 3 hours long, and held in the Central Library B-2 Training Lab, in the library basement. This room has a total of 15 PC's, each facing the front, and one that faces the class, allowing the instructor to demonstrate via an LCD projection to the front wall of the room.

July, August, October and November '04 - Train the Trainer Classes - with a total of 28 attendees, have all been held in the Library Lab on the 4th Floor of the Central Library.
The sessions are 1 1/2 hours long, and the class material is demonstrated on a large screen TV.

6. **Exhibits.**

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>Date(s)</th>
<th>Staff Member</th>
<th>Contacts</th>
<th>Demo's</th>
<th>Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>9Health Fair - Annunciation Church</td>
<td>4/18/04</td>
<td>Lee Shaughnessy</td>
<td>49</td>
<td>13</td>
<td>YES! 7 Demo's of MedlinePlus</td>
</tr>
<tr>
<td>University of Colorado Health Sciences Center Diversity Exchange</td>
<td>4/22/04</td>
<td>Lee Shaughnessy</td>
<td>10-12</td>
<td></td>
<td>YES! but low attendance at this event</td>
</tr>
<tr>
<td>9Health Fair - DPL</td>
<td>4/23/04</td>
<td>Lee Shaughnessy</td>
<td>22</td>
<td>22</td>
<td>YES! Lots of interest! 11 Demo's of MedlinePlus</td>
</tr>
<tr>
<td>Denver Foundation</td>
<td>5/22/04</td>
<td>Stephanie Anderson</td>
<td>20</td>
<td></td>
<td>YES! Just fliers, but much interest.</td>
</tr>
<tr>
<td>Wyatt-Edison Charter School</td>
<td>6/15/04</td>
<td>Beckie Brazell</td>
<td>25</td>
<td></td>
<td>YES!</td>
</tr>
<tr>
<td>Kaiser - Neighbors in Health Fair</td>
<td>8/8/04</td>
<td>Beckie, Elaine, &amp; Lee</td>
<td>62 + 24</td>
<td>2 demos</td>
<td>Outstanding! 17 + 18 Descriptions of MedlinePlus</td>
</tr>
<tr>
<td>Children’s Hosp. Immunization Day Fair</td>
<td>9/11/04</td>
<td>Beckie</td>
<td>25</td>
<td></td>
<td>YES!</td>
</tr>
<tr>
<td>CAL - Poster</td>
<td>10/23/04</td>
<td>Elaine</td>
<td>14</td>
<td></td>
<td>YES! 4 Descriptions of MedlinePlus</td>
</tr>
<tr>
<td>Schlessman Hall Display - Denver Public Library, Central</td>
<td>Month of 11/04</td>
<td>Unstaffed Display - No increase in health questions noted at the Reference Desk nearby.</td>
<td>(Perhaps 30 brochures or bookmarks have been taken from the display rack.)</td>
<td>So-So. People do stop and look, but not large numbers.</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td>251-253+ Display</td>
<td>57</td>
<td></td>
</tr>
</tbody>
</table>

In addition, we provided the following outreach presentations, with demonstrations at varying degrees of depth.
<table>
<thead>
<tr>
<th>Group</th>
<th>Date</th>
<th>Location</th>
<th>Contacts</th>
<th>Demos.</th>
<th>General Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCHILL</td>
<td>3/22/04</td>
<td>Denver P/SL Hosp.</td>
<td>11</td>
<td>1</td>
<td>Good general intro, and well received. Some skepticism: &quot;How will you maintain it?&quot;</td>
</tr>
<tr>
<td>REFORMA</td>
<td>5/12/04</td>
<td>Denver</td>
<td>15</td>
<td>1 via handouts</td>
<td>Good, well received. REFORMA added DPL's main Spanish web site link to their web page.</td>
</tr>
<tr>
<td>Community Celebration -</td>
<td>5/15/04</td>
<td>Denver - Ford-Warren Branch</td>
<td>Est. 12 people stayed for the PowerPoint.</td>
<td>Hands-On available, with assistance.</td>
<td>Most people who saw the PowerPoint demo were already associated with the project, but didn't know much about the product. They were impressed! MedlinePlus was promoted in this program.</td>
</tr>
<tr>
<td>Official Launch</td>
<td></td>
<td>Library</td>
<td>Est. 10 people tried hands-on.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colorado Dept of Public</td>
<td>9/9/04</td>
<td>Denver / Glendale - CDPHE</td>
<td>9</td>
<td>1 via PowerPoint with handouts</td>
<td>Enthusiastic audience representing a wide variety of public health interests for the state. Presented very basic intro to MedlinePlus, PHPartners, &amp; PubMed. Expressed concerns about document delivery problems they are having.</td>
</tr>
<tr>
<td>Health &amp; Environ.</td>
<td></td>
<td>Offices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Resources Forum</td>
<td>11/05/04</td>
<td>Denver - Exempla St. Joseph's</td>
<td>40</td>
<td>Minimal via PowerPoint</td>
<td>Good level of interest. Many groups represented here. Suggestion of working with parish nurses came up for a future possibility.</td>
</tr>
<tr>
<td>Hospital</td>
<td></td>
<td>Hospital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congregational Health</td>
<td>11/18/04</td>
<td>Denver - Exempla St. Joseph's</td>
<td>7</td>
<td>PowerPoint but able to switch to online for demo.</td>
<td>An hour presentation, with good interaction. These health workers are not internet savvy, but interested. They liked MedlinePlus, and our site.</td>
</tr>
<tr>
<td>Partnership</td>
<td></td>
<td>Hospital</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. **Resource materials.**

The "Getting Started" section of the DPL English and Spanish sites are devoted to online health searching instruction. This section of our site is located at: [http://www.denverlibrary.org/research/health/getting_started.html](http://www.denverlibrary.org/research/health/getting_started.html). The Advisory Group recommends simplification of this text-heavy section, so it is being revised. In addition, we are compiling training resources for Trainers and for the general public in PDF files there. Click on "Example Searches & Training Information" to locate and view these PDF files.

This project targeted many diverse groups with a wide variety of learning needs. While the training materials listed here have been used in various settings, we do not consider all of them in final form. Several of these documents will be revised over time in response to user feedback, and possibly more will be translated into Spanish.
Promotional Resources:

- Yellow flier - bilingual - announcing the new DPL web sites
- Bookmarks - English - DPL links on one side, DHP on the other
  - Spanish - "
- Calling cards E&S - web links plus promotional info of each site
- Press releases - Community Launch Celebration and NCLIS Award Ceremony
- Postcard invitations to Launch Celebration and NCLIS Award Presentation
- Broadcast email documents - not yet sent
- DCTV programs - 2 videos - fair quality
- PowerPoints - Launch Celebration, Whittier Neighborhood Association, Community Resources Forum
- Church bulletin insert - Congregational Health Partnership
- "Library Matters" - column in the Whittier Neighborhood Spotlight
- Invitational fliers for the Community Celebration, and for the demonstration programs scheduled for December 7 and 11.

Training Resources:

- Yellow bilingual bookmark
- Packets for Trainers - providing several handouts in page-protectors
- "Discover the DPL Health & Medicine Websites" - tips for beginning users
- "Most Wanted Search Tips" - handout for librarians
- Site Maps, both DPL and DHP2010
- PowerPoints and associated handouts
  - Websites Presentation 5/15/04
  - Colorado Department of Public Health & Environment
  - Congregational Health Partnership

Training materials will be sent to the National Training Center and Clearinghouse (NTCC) by December 15th, 2004 for inclusion in the Educational Clearinghouse at http://nnlm.gov/train/. We will send Word or PowerPoint files of each of these training and promotional materials, as well as printed copies.

8. Web sites.

A major accomplishment of this project was the development of three Web sites. The Denver Public Library Health and Medicine Web sites highlight information about personal and family health. Two sites are available: http://denverlibrary/research/health in English and http://espanol.denverlibrary.org/health in Spanish. The sites include search instruction sections and quality materials for those with limited reading or computer skills. DPL received the National Commission on Libraries and Information Science 2004 Blue Ribbon Award for their part in this partnership project, linking libraries and healthy lifestyles.

The DPL Library Without Walls Department utilizes software to identify 'dead' links, and
replaces links where they are able. Questionable decisions are sent to Elaine, and either she
or her colleagues in the Reference Department search for replacements. An Advisory
Committee is being formed for on-going evaluation and development of these two DPL
sites, with the intention of meeting three times per year. The first meeting was held
November 12th. This Committee includes some DPL staff members, health professionals,
and members of the community.

The Denver Department of Environmental Health’s Healthy People 2010 Web site
http://denvergov.org/bp2010 offers a collection of resources, best practices, local and
national data, connections to local groups and events, and other community-based
information for professionals and groups working to improve health. Usability testing on
the DHP site revealed some areas for improvement, and these are currently being
implemented. DHP is exploring the possibility of reconvening the Education Committee
as a Web Site Advisory Committee on an on-going basis and hiring a part-time person to
maintain the collections of data on this site.


The Denver Public Library provides document delivery in a variety of ways, and reference
services, as well. We did not attempt to isolate statistics that would document impact of
this project on these services. In a large library system such as this, many factors influence
these statistics, so we utilized other means of recognizing the impact of our work on this
project.

10. Approaches and interventions used.

We followed these steps and activities in the following areas:

identifying and scheduling sessions -

• We had many kinds of sessions, generally scheduled as specified in our proposal
timeline, with adjustments for needs of participants and a sense of readiness and
availability on the part of presenters.
• We were fortunate to have the cooperation of community leaders in gathering our
focus group members of the Hispanic community. The parish nurse of a church in
the neighborhood arranged for one of their already-organized groups to make up
one of our focus groups. Another group was made up of parents from one of the
neighborhood schools.
• Though we provided fliers at several locations, and worked with one couple
throughout the course of the project, we were not as successful in engaging the
African American community in advance of the focus groups. In this case, we
recruited additional participants from among the patrons at the library at the time.
promotion/marketing -

- The groundwork was laid for promotion from the outset. With the first contact of potential key informants, our Health Educator expressed a strong interest in the needs of the community. Sincere, enthusiastic responsiveness to the input of these leaders set the tone for later interactions and word-of-mouth promotion. We think of this as a "coconut wireless," a concept Stacey brought with her from years of experience in Hawaii.

- In addition, both the library and the Department of Environmental Health are large organizations with effective in-house marketing and opportunity for active networking with collegial groups, as well. When one of us is presenting about our resources, we describe the partnership and the resources that the other agency offers, as well.

training -

- New Internet users from the Hispanic community are coming in small groups. We provide sessions for them in collaboration with the Early Childhood Education program at a nearby school elementary school. They come one morning per week, prior to the library being opened to the public. We introduce them to a "Mousercise" tutorial [http://oceancounty.lib.nj.us/In_House/Tutorials/Mousercise/page1.html](http://oceancounty.lib.nj.us/In_House/Tutorials/Mousercise/page1.html), and allow them to practice, working themselves through the tutorial at their own pace in either English or Spanish. It's fun and easy and it introduces the learner to the many ways that the mouse may be used on the Internet. Drop-down menus, scrolling, and checkboxes can be very confusing to the new user - something that is easy for experienced users to forget. Completing this tutorial gives our new users the confidence to try the complex tasks involved in using our online library catalog and our new health web sites.

- At all Train the Trainer and Staff Training sessions we have provided coffee, bagels, and fruit, an out-of-pocket expense. We believe this demonstrates our appreciation for the trainees and their investment of time with us, and that it makes a positive difference in the comfort level and learning experience of the trainees. We were disappointed that NLM did not allow us to budget this into the project. It would have made things a lot simpler on several occasions.

- Beginning in September, at all sessions held at the Central Library we have reimbursed trainees for their parking expenses, as well. Having to come to the Central Library represents a cost to the trainee, and providing this reimbursement is an important incentive for their participation.

- We have used handouts, projected live Internet connections, PowerPoints, and hands-on opportunities in our cluster of training approaches.

- As virtually all of our trainees were unaware of MedlinePlus, and new to the health resources at DPL, we have not pursued in-depth presentations of PubMed, Toxnet, and ClinicalTrials at this time, except in the Librarian Training on September 16th. We anticipate doing so through future librarian trainings, open to DPL and others, early next year.

personnel/staffing -
The Denver Healthy People Education Committee envisioned the original project, including the suggestion that the project be implemented through a health educator consultant. What a powerful impact our Health Educator, Lee Shaughnessy, had on our efforts to reach out to the professional health community, as well as the neighborhood folks! She spoke "medical-ese" right along with the doctors and community health leaders, and she also spoke sufficient Spanish to be effective in presenting about our new web sites at community outreach events. We were extremely fortunate to have Lee as she has literally been the bridge to a great many relationships in the health community, with her energy, enthusiasm, expertise, charisma and high standards.

Most other staffing was through staff or volunteers with our two agencies. Most DPL staff involved were functioning in this project in roles that were already established through their jobs.

When Stacey McConlogue left, the Denver Department of Environmental Health, absorbed the cost of many of her project hours, allowing for maximal funding available for a public health consultant familiar with DHP to complete the work.

Web site development -

We began the project with a large collection of web sites, recommended by librarians on the CAPHIS listserv of the Medical Library Association over the past few years. This provided a huge selection of quality resources, mostly in English, but many in Spanish or multi-lingual, as well. For the English site, the process of web development became one of organization and elimination. For the Spanish, it was instead a matter of hunting down reliable resources. Both of these processes were much more time consuming than we had anticipated!

Usability studies on the Denver Public Library Web site in spring of 2003, led to the re-design of our library home page as released in January, 2004. For this project we were allowed the opportunity to experiment more broadly, but we chose to work within the design structure that had been created and tested for the library home page.

We based our content for direct coverage on the Whittier community assessment, including input from focus groups, key informant interviews, and reports provided by Denver Healthy People 2010. Specific health concerns expressed in this community mirrored all the concerns that any of us has - but lack of insurance, limited access to health care, safety, and quality of life issues were of especially great concern. And because traditional health matters were relegated to second place behind the need for food, jobs, affordable housing, and safety, we included many local services, issues of public safety and environmental health, and a whole section dedicated to the information needs of those working in community health.

We selected a 3 x 3 panel arrangement, (known among us as a "Hollywood Squares" design), as the most effective way to categorize the expressed needs of our focus groups and key informants.

We used the same categories and sub-categories on both English and Spanish sites, highlighting them with the same pictures, and adding English rollovers for the Spanish titles. We did not hesitate to duplicate content as needed to facilitate searching. We created instructions for beginners in the use of the site and in basic
health search strategies, and located these together in our "Getting Started" section.

- We highlighted low literacy and low health literacy materials in both English and Spanish, and compiled one section that provides many very basic resources, linking directly to the topic of interest, rather than leaving the customer to search within a site.
- We still include our databases and other challenging resources, but we prioritized the design elements above to help our new users be successful.
- We took advantage of the many great resources of the National Library of Medicine, including MEDLINEplus.gov, PubMed.gov, and Toxnet. And we linked our site with that of Denver Healthy People 2010 so professionals and community leaders will more readily have access to all of these quality health resources, and library customers will be more readily connected with local health promotional initiatives and organizations.
- We beta-tested these sites and implemented many suggestions prior to launch.
- 'Dead links' are identified by software, with the Library Without Walls Department responsible for simple replacements. More challenging concerns are addressed to Elaine, and she draws upon the expertise of colleagues as needed.
- Usability testing continues on an informal basis, and an Advisory Committee is being established for follow-up development.
- The Denver Healthy People 2010 Web site was developed in a parallel fashion, beginning with a needs assessment and progressing to collection of reliable professional resources. Usability testing was carried out in late summer, and implementation of recommended changes is underway at this writing.
- The Department of Environmental Health plans to hire a part-time person to search for and provide the links to quality local and national data that is such an important resource on this site.

11. **Evaluation.**

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

Originally we planned on evaluating based on a combination of observations, reports surveys, beta-testing results, usability testing, and web site usage. We included web site usage as a measure for nearly every objective.

As it turns out, web site usage does not dramatically confirm the many other measures of much success. Throughout the project we have heard over and over that it makes good sense for the library to host such a gateway site. When we tested our draft sites, we had excellent reviews across the board, with a few recommendations. When we launched our
sites we had a huge response of web site usage, demonstrating much interest. In usability testing we have had generally good reviews, though it is apparent that there is a learning curve for Whittier residents, and that a few tips are needed for even librarians to get the best use of these sites. Surveys have all been quite positive, though we did not receive large numbers of survey responses. As we have made presentations, we have received many positive comments. And finally, we have begun three very strategic partnerships with organizations serving the residents of the Whittier community.

The path we have taken (building relationships, training trainers, and developing tools), will ultimately lead to the increased web site usage that we had hope to see more clearly by this time. The project will continue through the resources and commitment of the Denver Public Library and the Denver Department of Environmental Health's Denver Healthy People 2010, and their strategic positions in the community.

At this time we take great pride in the following achievements:

- 3 Vastly Improved Web sites
  - much more user friendly
  - based on expressed needs of Denver's Whittier residents and workers in community health
  - emphasis on staying healthy and preventing disease
  - parallel English & Spanish sites
  - many local resources

- 20 Presentations to the community, including 8 exhibits
  - 388 Total Attendees

- 10 Trainings at various levels (See detail in #4, p. 6 above.)
  - 76 Total Attendees

- 1 simple plan for assisting new users to begin on the Internet
  - 25 Trained at a very introductory level

- 3 Strategic Partnerships with organizations working in the Whittier community

- When this project began, our Health Educator did lots of Key Informant Interviews. Not one of the people that she spoke with had any idea that the Denver Public Library had health information on its Web site! Now we have had several requests from organizations wanting to be included on our site.

Through this project, DPL has tapped into the great wealth of our potential to improve health information services to our Denver residents, especially in our communities who are underserved. We have expanded access to quality electronic health information in Denver by:

- Compiling links to high quality health resources in an easy to learn and to use format
- Providing the Health site and many outreach materials in Spanish
• Emphasizing MedlinePlus in all training and outreach sessions
• Offering hands on instruction for Computer Comfort to new users
• Offering hands-on instruction tools for health searching to potential trainers of additional new users
• Working through relationships and avenues of trust for outreach and publicity
• Providing internet access computers to the public throughout our library system, including the recent rollout of "equal access software"
• Building cooperative alliances with many organizations in the community
• Honoring the privacy of our customers as they seek information about their health, and providing a resource that users can access in the privacy of their own homes…
• Providing search assistance through librarians with growing levels of expertise, and reliable referrals to medical librarians who seek to serve the public.

Objectives Status Report - November, 2004*

Many aspects of library and health promotion services are never complete. The missions of each of our agencies whole-heartedly embrace the on-going efforts identified here.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Started</th>
<th>Complete</th>
<th>Calls for On-Going Efforts</th>
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<tbody>
<tr>
<td>A. Enhance DPL's Health sites - more effective access - E &amp; S</td>
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DPL  DHP  2010  Other
<table>
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<tr>
<th>Objective</th>
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<tr>
<td>B. Improve DPL's HM sites - needs of Whittier neighborhood</td>
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<td>C. Improve DPL's HM sites - health promotion, prevention of illness...</td>
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<td>D. DPL's HM site more user-friendly for all</td>
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<td>E. Enhance DPL services to our Hispanic, Afr-Amer., and low-income / participation...</td>
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<td>F. Establish strategic partnerships</td>
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<td>G. Increase community awareness of DPL resources, DPL's website, and the Internet</td>
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<td>H. Teach non-users the ease and value of access to quality health info online</td>
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<tr>
<td>I. Enhance skills and abilities of DPL staff / health info access and community outreach</td>
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<td>J. DHP2010 website - parallel process of development, outreach, and training</td>
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</tbody>
</table>

* The upper case "X" in green indicates major progress toward completion. In yellow, the large "X" indicates that significant effort by the listed agency will be devoted to follow through in the future.

* The lower case "x" in green squares indicates the objective has been significantly begun but not completed. In the yellow, the lower case "x" indicates on-going attention in the future, but not to the extent that upper case "X" items will receive.
The total usage rank of our Health & Medicine English site has moved up to third place consistently (from 7th to 10th), since we launched these new sites. In DPL Spanish site, the Health site (Salud) consistently ranks first.

The following shows the ups and downs of use of the entire DPL web site.
The DPL Spanish Salud site shows a similar dramatic rise followed by a gratifying level of stability. It may be too soon to predict a consistent rise in usage at this point, but it is tempting.
In addition, the rise in the use of the whole DPL Spanish site parallels the rise in use of the Spanish Salud site, with a dramatic rise at the time we launched both health sites. Also remarkable here is that the total page views of the Spanish Salud site is not a great deal less than that of the English health site total page views, quite a positive result for Spanish usage.

Considering only the main page views of the two DPL Health sites, we have the
The following data represents our "Click Count" results. It tallies the number of times that someone goes from our DPL Health & Medicine sites to MedlinePlus. It also tallies similarly for people going to PubMed, Toxtown, and some other NLM resources, but those numbers are insignificant so far. It does not include people using MedlinePlus who skip our links to get there, so it won't document the effect of the constant emphasis we have made of MedlinePlus in our trainings and outreach. And it does not include the use of MedlinePlus through our Webfeat access, either.
The DHP web site is much improved, too. The usability testing identified several changes to make, and these are being negotiated with the City at this time. The City of Denver has specific parameters for its site, so there may need to be some adjustments in what DHP is requesting. DHP is between Program Administrators at this time, but will be hiring a new one to begin in January. The Department of Environmental Health is committed to maintaining the DHP program and the local data that are associated with the HP2010 objectives.

Here are their statistics for usage of the DHP site. They are definitely getting more visits than a year ago. In August, they were doing a lot of usability testing with 9 or 10 participants. This probably explains the spike for August, 2004.
12. Problems or barriers encountered:
   Provide details on problems encountered in the areas of

   promotion/marketing - The media has not picked up the press releases about
   our project. We have done well with the networking approach, so far.
   Hopefully we will have a "story" one of these days that can be pitched to the
   media more effectively. Something "soft." Someone whose life has been
   changed would be more likely to do the trick!

   We learned some tough lessons around the use of the term "Press Conference."
   Here is an example of our two agencies operating on the basis of different
   assumptions. The assumed approach to announcing these sites from the DHP
   standpoint was to hold a Press Conference. The perspective from the view of
   the library public relations department was very different! And DPL project
   staff used the term loosely, so we had an event all scheduled on the basis of this
   miscommunication. Each agency had a lot at stake, and was stretched in terms
   of time and other commitments. In the end, we had to cancel that event, a very
   painful episode for all involved. Ideally a partnership for a project like this
   would be developed before the project began. Developing trust and
   understanding takes time.
**training** - Although hands on practice time is scheduled with most of the classes, few people stay to take advantage of this following the 1 1/2 hour Train the Trainer sessions. We ran short of time in the intermediate level Staff Training, as well. We will be revisiting the process as we plan future training sessions.

**equipment/telecommunications** - Couldn't designate the 3 training computers at Whittier, but otherwise not a problem. Support from the Library Without Walls Department and the Data and Network Services Department has been excellent! It is a little more complicated working with the City Web developers, but these things are working out, too.

**personnel/staffing** - We seriously underestimated the time and effort involved in the many aspects of this project, particularly web site development and communication. Expecting our contract person to complete all that we assigned to her in 650 hours was totally unrealistic. For one example, we failed to include communication time in the budgeted hours. One problem the library faces constantly is that people turn to the Internet directly, rather than realizing the value of all that the library can provide for them. In this, Lee was a perfect example - and now our favorite convert! We simply cannot ask someone who is unaware of the vast resources available through their public library (let alone its internal culture) to come into our world, develop a web site for us, attach it to our home page and expect it to be effective. Particularly when outreach is a significant part of the goal, frequent and detailed communication with team members is crucial.

Because of these miscalculations, Lee's 650 hours were used up before we even got into the training and outreach portion of the project. This work has fallen to Elaine Connell. Though DPL budgeted 300 hours for Elaine's part of this project, in fact she has logged over 1200 hours, over 180 of her personal time. In its commitment to this project, DPL has graciously absorbed the additional hours, despite the tight staffing brought about by reduced budgets.

Similarly, when Stacey McConlogue resigned to take another position, DHP absorbed the cost of all of her hours for 2004, allowing the maximum dollars possible to pay a consultant to complete her work on the project. Despite the fact that Helene Kent was highly qualified and involved with DHP already, the loss of continuity was very difficult. Loosing both Stacey and Lee at roughly the same time significantly impacted the fulfillment of our objectives, for example the total number of Whittier residents trained. Others on the team were not able to take on additional aspects of the project, either; with our reduced budget, and now a major reorganization in the works, staff throughout the library are very pressed for time.

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?

This project has taken the library to a whole new level in its ability to serve the community in providing health information. Prior to this project, we had and maintained a health web page. Now we have a much improved health site, and a second one in Spanish. We will continue to develop and maintain these sites through our Library Without Walls Department, and our Advisory Committee. Prior to this project, we did community outreach. Now we have relationships within the community and the health community which will facilitate this outreach substantially! Prior to this project, we provided classes to staff and to the public on searching for health information. Now we have a variety of classes and materials that we can provide to these same groups and others, and we are developing a group of trainers who can help people to use these resources in the communities where they live.

### Prior to this Project

**Partnership** -
Didn't Exist!

**Web Sites** -
1 Long Page at DPL
English Only
DHP2010 Staffing Cuts

**Training** -
Staff & Public
3-4 Classes Per Year

**Outreach** -
Minimally Effective

### Following this Project

**Partnership** -
Ongoing with DHP2010
Collaborations with
- Congregational Health Partnership
- Sister Mary Lucy Computer Center
- Metro Denver Black Church Initiative
- More!

**Web Sites** -
English & Spanish at DPL
Comprehensive, Authoritative, Easy To Use
Advisory Committee / On-going Development
DHP2010 Staffing Commitments!

**Training** -
Staff and Other Librarians with MLA CEU’s
Public in Various Group Settings
Professionals & Community Leaders "Train the Trainers"
12 or More Classes Per Year (Est.)

**Outreach** -
Self-Generating Through Referrals

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DHP2010 - At this time DHP2010 is between Program Administrators,
intending to replace Stacey with a full time Program Administrator in January. City budget constraints have prohibited the provision of benefits for a temporary person in this position, so Janine Pryor is filling in temporarily on a contract basis.

In addition, they are planning to hire a part time support staff person to begin soon, and a part time data gathering person. Currently an intern is working on the data gathering with guidance of a university professor in public health who is involved with DHP.

Although it will depend on the choices of the new Program Administrator, they are considering re-establishing the DHP Education Committee as a Website Working Group to help maintain the site.

From the outset, this work has been an integral part of the mission of both of our agencies. We will continue to pursue it, because it is what we do! Thanks to the project, we will be able to work more effectively as we build on this partnership and community cooperation.

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.

• Improved libr. recognition in the public health community.
• Increased openness - I get requests now / to be included, and have to turn some down! In the past I couldn't get in the door!
• DPL received the National Commission on Library and Information Science 2004 Blue Ribbon Consumer Health Recognition Award for this project.

15. Recommendations for improvement:
Include suggestions for alternative methods, training materials, promotional materials, etc.

• Was this the right project? This was a very comprehensive project, with several target audiences, and web site development for both agencies. Looking back, one wonders whether it was wise to take on so much at one time.

In many ways this was an ideal situation. DPL is a large award-winning public library. Elaine is a former Registered Nurse. Lee and Stacey were very well connected in the community, and Beckie is very experienced in outreach. We had a branch library location that is integral in the community. Our technical staff were fabulous! The library was already committed to several initiatives that perfectly fit the nature of this work. Although we ran out of hours for Lee, and we lost Stacey to another job, we accomplished a great deal with this project. And we can
celebrate accomplishments and momentum in many areas.

It is my feeling that while we could not fully accomplish everything that we set out to do in a quality way with this size of a grant, neither could we have started out otherwise. If we were to serve the Whittier residents, we had to address the needs of the professionals and community leaders, as well as the library staff working with them. And we would not have had a partnership with DHP if we had insisted on directing all of the resources to the development of the DPL sites.

For future work, we will be able to target more specifically, but for our first health grant project, this was the way to go.

- Target public libraries! You might even go to Hennen's American Public Library Ratings at [http://www.haplr-index.com/ratings.html](http://www.haplr-index.com/ratings.html) to target specific libraries.

- The contribution of the Health Educator Consultant cannot be overstated!

- Partnerships are vital, but can also be traumatic! Discord between the very separate world-views that exist in different agencies is probably unavoidable in the development of an effective partnership. Find a way to help partners anticipate and deal with this.

- Fund a limited number of projects similar to this nationwide, and fund them for $80,000 to $100,000 each. Developing web resources takes time! Once our Health Educator's time was gone, the project proceeded much more slowly. In this case, the Library and project staff invested many more hours than were originally estimated. Not every library would be able to do that.

- Weigh development of strategic partnerships and sustainable training and outreach activity more heavily than web site usage in the initial project.

- Fund many more different projects, perhaps including web site development, but heavily emphasizing outreach and training at all levels.

- Allow food from NLM Budget. We were disappointed that NLM did not allow us to budget this into the project. It would have made things a lot simpler on several occasions. The library did not have money to take from its budget, either, so project staff provided food as an out-of-pocket expense. We feel that food is a very significant incentive, and that it can help create a better atmosphere for learning and communication.

16. Responses to follow-up questions:

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

There were two areas where we did not see the numbers that we had hoped. First, we did
not train 200 Whittier residents. We did, however, train many people who will be training
others. We don’t know how many people have been trained by these folks in various
settings, and to varying degrees.

Secondly, we didn't see a dramatic increase in the number of hits to our main Health sites.
In part, this may be due to our diminished work on this project once Lee and Stacey were
gone. In addition, the English site is huge, and it takes time for busy, generalist staff
librarians to master it's use. It's still easier to type key words into Google for a quick
reference question under pressure. Asking librarians to change what they have found
adequate for years, is a challenge, but those who take the training are picking up on
MedlinePlus and on our new web sites, too. Then, there is the reality that people will find
good links on our site, and then bookmark those links, rather than come through our site
each time.

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?

a. Contracting with a Health Educator Consultant was the single most valuable strategy in
this project. Lee was energetic and highly professional. She brought many
contacts in the health care community, and was able to communicate effectively
with both professionals and residents in the neighborhood. She won the attention,
trust and respect of many leaders, and made the critical difference in this project.

b. Partnership makes sense! The library and the community benefit most significantly
because of the expertise and the great many connections that DHP have brought to this
work:
   • I was unable to strategize on the nature of our project, but Stacey and her DHP
     Education Committee came up with our basic strategy within one hour!
   • It would never have occurred to me to hire a health educator - I had never heard of
     them! And I would have been at a loss as to what to look for in hiring such a
     person, but Stacey gave me a lot of guidance.
   • I would have been content to focus on treatment of disease, but Stacey brought a
     strong sense of the importance of public health, prevention of disease, and
     community action involved in promoting wellness and creating healthy
     communities.
   • I had thought only of serving the general population as individuals, while Stacey
     reminded us of the needs of those professionals and organizations seeking to
     develop programs and to serve individuals in the community.
   • I had struggled to connect with health organizations in Denver, but Stacey had
     developed a coalition including over 250 people, and their respective organizations.

   c. Relationships are the critical.
d. It takes time to develop a Train the Trainer approach, but it can work...

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

See follow-up question number 1 above.

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

- Develop relationships early. Bank on the "coconut wireless" (Word-of-mouth). It's the way to go!

- Don’t spend too much time on web site development. You can always beef-up a basic site, but the relationships are critical. New users can’t learn to use a complicated site quickly anyway.

- Even so, don't launch a site that you don't want to live with for a long time. People don't like to learn to use something, and then have it undergo major change.

- Identify potential partners wherever possible before you launch into a project, before you are both under pressure to fulfill the requirements of your proposal.

- Keep in touch with your liaison. They are a great help and they are there for you.