



Site Redesign Final Report

March 5, 2003

Partners Site Redesign Team:

Greg Bodin, NN/LM South Central Region
Keith Cogdill, NLM
Jennifer Marill, NLM
Michael Miller, NN/LM Pacific Southwest Region
Jocelyn Rankin, CDC
Catherine Selden, NLM

Acknowledgements

The members of the redesign team are grateful to Marjorie Cahn who, as project director at the National Library of Medicine, provided significant assistance and guidance throughout the redesign initiative.

Joe Fitzgerald, a graphic designer at the National Library of Medicine, prepared the logo for the redesigned site.

Laura Larsson at the University of Washington and Kris Alpi at the New York City Department of Health and Mental Hygiene provided thoughtful reviews of the current Partners site and the redesign mock-up.

Table of Contents

Executive summary.....	1
Site redesign team charge	2
Redesign timeline and deliverables	2
Phase 1: Team evaluation of existing site	3
Phase 2: Development of mock-up based on team evaluation	5
Phase 3: Review of mock-up by Partners representatives	5
Phase 4: Development of prototype based on findings from review.....	6
Phase 5: Usability testing of prototype	7
Phase 6: Revision of prototype based on usability test findings.....	10
Phase 7: Site maintenance plan	14
Proposed next steps	15
References	17
Appendix A: Current Partners site, top page.....	18
Appendix B: Current Partners site, “Resources of special interest” page	19
Appendix C: Current Partners site, NN/LM navigation menu, search link and search feature	20
Appendix D: Current Partners site, “Public health training responses” page.....	21
Appendix E: Redesign mock-up, top page	22
Appendix F: Redesign mock-up, “Literature and guidelines” page.....	23
Appendix G: Feedback on mock-up from Steering Committee representatives...	24
Appendix H: Usability test protocol.....	36
Appendix I: Usability test data.....	44

Executive summary

This report summarizes the redesign of the site maintained by the Partners in Information Access for the Public Health Workforce, currently available at <http://nnlm.gov/partners>. The report is prepared for consideration in advance of the Partners Steering Committee meeting scheduled for March 17, 2003. During this meeting it is anticipated that the Steering Committee members will provide feedback on the redesign as well as proposed next steps for the site.

Beginning in June 2002, the site redesign team undertook a series of tasks leading to the development of the proposed redesigned site. The steps followed by the redesign team included: an internal review of the current site by the team; preparation of recommendations and a mock-up of a possible redesigned site; development of a prototype incorporating suggestions received from representatives of the Partners about the mock-up; usability testing of the prototype; revisions to the prototype based on findings from the usability testing; and identification of issues to be included in a plan for the site's maintenance.

This final report summarizes progress previously described in a report dated September 19, 2002. New material included in this final report includes the suggestions received from the Partners representatives, the changes made based on these suggestions, results of the usability testing, changes made as a result of the usability testing, and the issues to be included in the plan for the site's maintenance.

The next steps proposed by the redesign team are:

- On March 31 launch the redesigned site as static html pages on the new domain name, <http://www.phpartners.org>.
- Before March 31, identify and resolve possible violations of accessibility standards.
- Before March 31 implement the ht://dig search engine.
- Before March 31 implement any suggestions that may be offered during the Partners Steering Committee meeting on March 17.
- Before August 1 a National Library of Medicine (NLM) associate fellow will work with members of the site redesign team to prepare a draft site maintenance plan.
- Before August 1 the associate fellow will also work with members of the redesign team to select software for supporting a transition to a database-driven approach for the site.

- Through a review of the literature and selected interviews conducted before August 1, the associate fellow will also address the need for new content or resources on the Partners site.
- Before August 29 the technical leads responsible for the site's redesign will complete a transition to a database-driven approach for the site, implementing software recommended by the associate fellow.
- In October the Steering Committee will consider the draft site maintenance plan prepared by the associate fellow. Until the Steering Committee has approved this plan, new links will continue to be added to the site based on the review of the Partners project director at NLM.

Site redesign team charge

In June of 2002 the Partners Steering Committee charged the site redesign team with an evaluation of the existing site and the implementation of changes approved by the Steering Committee.

Redesign timeline and deliverables

The work of the Partners site redesign team was accomplished between June of 2002 and March of 2003. The specific tasks completed include:

June – July 2002	Team members conducted site evaluation, addressing issues related to both the site's content and design.
August – September 2002	Prepared report of evaluation and recommendations for Partners Steering Committee.
October 3, 2002	Presented results of evaluation and recommendations to Partners Steering Committee.
October 2002	Review of site mock-up by Partners Steering Committee representatives.
November - December 2002	Prepared prototype implementing suggestions offered by Partners Steering Committee representatives.
December 2002 – January 2003	Conducted usability testing of prototype site.

January – March 2003	Revised prototype based on results of usability testing.
February 2003	Identified issues to be resolved in site maintenance plan and prepared final report; abstract of a report of the redesign project submitted for presentation at APHA 2003.
March 17, 2003	Anticipated presentation to Partners Steering Committee: proposed site redesign and issues to be included in site maintenance plan.

Phase 1: Team evaluation of existing site

Team members conducted an evaluation of the current Partners site (Appendices A - D) in June and July of 2002. Each team member was asked to consider the existing site’s content as well as its design. When evaluating the design of the current site, team members were asked to consider a set of ten design heuristics. It should be noted that this evaluation was limited by some team members’ lack of professional experience in public health.

After reviewing the content of the existing Partners site, team members reached consensus that the current organization may not reflect the variety of information needs public health professionals experience. Team members agreed that the site’s content should be based on findings from previous research investigating the information needs of public health professionals (Rambo and Dunham, 2000). Further, team members agreed that the selection of categories for organizing the content should be informed by the results of this research. Based on their review of research into the information needs of the public health workforce, the team prepared a preliminary set of content categories:

Literature and guidelines
Conferences and meetings
Discussion lists
Finding people
National legislation
Tools and forms for data collection
Grants/funding
Education
Jobs
Public health librarians’ resources

Table 1. Preliminary content categories.

Team members also conducted a heuristic evaluation of the existing site, adapting a protocol outlined by Nielsen (1994) and relying on ten heuristics formulated by Instone (1997). These heuristics and the results of the initial evaluation are described in the redesign team's report dated September 19, 2002. The findings from the team's evaluation included sixteen points:

- Team members agreed that the site should provide indicators of the user's current location within the site. One approach is to implement menus with options or tabs that provide a visual indication of the present location.
- Team members noted that link titles should be as specific as possible to avoid misdirecting users. Brief annotations accompanying links may also assist the user's navigation. The current site's link categories were noted as problematic. For example, the "Resources of special interest" category (Appendix B) may be too broad.
- The current site's search feature is limited in that it directs the user to NN/LM's search page. This directs the user to search MEDLINEplus or the entire NN/LM site rather than the content of the Partners site (Appendix C). Reviewers also noted that the search feature might not be easy to find.
- Team members agreed that all pages in the site should be formatted consistently. The current site includes a sub-site on "Public health training responses" with an interface that differs significantly from the larger site (Appendix D).
- Team members noted that, as much as possible, the site should be broad and flat to provide for efficiency of use. This approach will prevent the user's needing to "drill" for content.
- The consensus among team members was for the site to adopt a single identity. This would entail adopting an overall brand or logo for the site in place of the Partners' ten separate logos. These ten logos could appear in the site's "about" page.
- Team members noted that feedback from the search engine should include messages customized to specific problems, such as messages provided in the event that a query retrieves too few or too many hits.
- The agreement among team members was that the Partners site may be considered a "basic" site in that extensive help documentation may not be needed. In addition to the site's "about" page, users may rely on an email or form feature to pose questions and suggest additional links.

- The URL for the site should be separate from the NN/LM's. The NN/LM site navigation menu (Appendix C) should also be removed. This suggestion is consistent with the previous observation that the site should adopt a single identity.
- The mission and goals of the Partners site should be more readily apparent. The current site has a mission statement that is easily overlooked because of its proximity to a highlighted request for feedback on the Healthy People 2010 Information Access Project (Appendix A).
- A news box could be added to the top page with news about the site and the Partners project. News relevant to public health generally could be accessible with links to the separate Partners' pages.
- A form could be provided for users to send suggestions for new links.
- As much as possible, the site should avoid lengthy pages that require the user to scroll.
- Changes to the site should comply with Section 508 accessibility standards (<http://www.section508.gov>).
- In planning for the future maintenance of the site, consideration should be given to the formation of an editorial board that includes public health professionals.
- The site should provide information about the schedule for its review and updates.

Phase 2: Development of mock-up based on team evaluation

Building on findings from their evaluation of the current site, the team prepared mock-ups of a redesign that incorporated the preliminary set of content categories and two draft logos. The mock-ups were reviewed by the Partners Steering Committee as part of their meeting on October 3, 2002. Members of the committee reached consensus on proceeding with the mock-up shown in Appendices E and F.

Phase 3: Review of mock-up by Partners representatives

In the weeks following the Steering Committee meeting in October, the redesign team revised the order of the content categories. Monthly summaries of the site's use in July, August and September of 2002 were analyzed as well as the daily summary for October 17, 2002. The site's use data indicated that the most frequently accessed part of the current site were the pages related to the Healthy People 2010 Information Access Project. The second most frequently used part

of the site was the page entitled “Tools for public health professionals,” which includes links related to “Grants and grant writing,” “Education and training,” “Needs assessment,” and “Resources of special interest.”

Use data for the current site supported the placement of “Literature and guidelines” as the first category in the site. The redesign team selected “Grants/funding” and “Education and training” as the subsequent categories. Although use data on the content corresponding to “Grants/funding” and “Education and training” are not available for the current site, team members reached consensus that these are likely to be the most frequently used sections of the “Tools for public health professionals” page on the current site.

Literature and guidelines
Education and training
Health promotion and health education
Public health librarians’ resources
Health statistics
Tools and forms for data collection
National legislation
Conferences and meetings
Discussion and e-mail lists
Finding people
Jobs and careers

Table 2. Prototype content categories.

Following the Steering Committee meeting in October, members were polled regarding the choice of a mission-related “tagline.” The tagline selected was, “Linking the Public Health Workforce to Information for Improved Practice.”

Between October 21 and 25, 2002 nine reviewers, including representatives of the Steering Committee, offered a total of approximately one hundred specific suggestions. The team organized the feedback by broad themes, shown in Appendix G. Not all suggestions were implemented, as the consensus within the team was that some suggestions may violate best practices in interface design and that others fall beyond the scope of the redesign initiative.

Phase 4: Development of prototype based on findings from reviews

Between October and December of 2002 the redesign team implemented suggestions received from representatives of the Partners organizations. These changes constituted the development of the prototype of the redesigned site that subsequently underwent usability testing. During this period a new domain name for the site was selected and registered. Steering Committee members were polled regarding a new domain name and www.phpartners.org was selected.

Phase 5: Usability testing of prototype

In December of 2002 and January of 2003, the fifth phase of the redesign initiative proceeded, entailing usability testing conducted at the National Library of Medicine. The data collection protocol for the usability tests is shown in Appendix H, and the usability test data are presented in Appendix I.

Following conventional usability test methods a small, purposive, convenience sample of four members of the public health workforce and two librarians working with the public health workforce were recruited for participation. The process of recruiting participants entailed inviting potential participants known to the members of the redesign team and asking them to identify other potential participants. The selection of participants was based on the goal of maximizing the diversity of their work-related responsibilities. An honorarium of \$100 was provided to each of the six participants.

As the selection of participants unfolded, it was noted that participants were demographically homogenous; all were women between the ages of forty and sixty. However, there was significant heterogeneity in the roles represented among the members of the public health workforce in the sample. These roles included an event planner, a health analyst/writer, a producer of a health education radio program, and an administrator responsible for a county's public health services. Of the four members of the public health workforce in the sample, three had a master's in public health. In addition, one of the two librarians had a master's in public health. The other librarian held a doctorate in speech-language pathology.

Before beginning the five tasks, participants were asked to complete a brief pre-test questionnaire designed to gather demographic information and information about their previous experience using the Web. Participants were also asked to rank the categories of information used to organize the prototype site on the basis of expected frequency of use. Participants were asked to describe the information they expected to be available within each category.

The five tasks were developed by the members of the redesign team with the goal of achieving variety in topic, level of difficulty and parts of the site used. As participants worked on the five tasks, they were prompted to think aloud. The test administrator noted the time needed to complete each task, any problems encountered, and any feedback provided about the site. The test administrator also coded the level of difficulty of each task for each participant as "easy," completed with "some difficulty" or "challenging." Video-taping captured what appeared on the computer monitor as well as the audio data.

Following the tasks, participants were asked four open-ended interview questions that explored their overall impressions of the site and that requested specific recommendations for its improvement.

The following were among the most notable findings from the usability tests:

- In describing the information they expected to be available in each category, five of the six participants expressed uncertainty about what would be included in the category “Public health information outreach.”
- The participants’ rankings of the content categories by expected frequency of use resulted in significant variability. This variability is likely a reflection of the variety of work-related responsibilities among the test participants. As shown in Table 3, however, three categories were selected by at least two participants as the category they expected to use most frequently: “Health promotion and health education,” “News in public health” and “Literature and guidelines.” Two participants indicated that “Jobs and careers” would be the least frequently used category, and two others indicated that this category would rank eleventh out of the twelve categories in terms of frequency of use.
- Evidence from the usability tests indicated that participants were unclear about what would be available in the “Accessing the literature” grouping of links on the “Literature and guidelines” page. When asked to find journal articles one participant looked under the “journals” subcategory, and another searched for news material on this topic.
- The usability test participant without a master’s degree expressed uncertainty about the abbreviations of the Partners organizations shown on the site’s top page. She suggested that the full names be provided.
- One participant indicated that she expected a “return to top” link that would facilitate navigating the longer pages.
- One participant’s attempt at using the Healthy People 2010 Information Access searches failed because she expected to execute the PubMed search by clicking on the objective number.
- Participants expected the links on the “Health data tools and statistics” page to be arranged topically.
- Participants noted the absence of an organizing principle for the list of conferences and meetings. The redesign team had not arranged this list chronologically or by sponsor in the version of the site used in the usability tests.

Category	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6	Avg	Possible Rank
Conferences and Meetings	7	10	10	11	6	4	8.0	9
Discussion and E-mail Lists	11	5	11	8	9	8	8.7	11
Education and Training	3	6	2	10	5	10	6.0	6
Finding People	10	12	9	6	11	2	8.3	10
Grants and Funding	2	7	8	5	8	5	5.8	5
Health Data Tools and Statistics	5	4	7	3	2	12	5.5	4
Health Promotion and Health Education	1	3	5	4	1	3	2.8	1
Jobs and Careers	12	11	12	7	7	11	10.0	12
Legislation	8	8	3	12	4	6	6.8	8
Literature and Guidelines	4	1	6	1	10	9	5.2	3
News in Public Health	9	2	1	2	12	1	4.5	2
Public Health Information Outreach	6	9	4	9	3	7	6.3	7

Table 3. Usability test rankings of content categories by expected frequency of use. “1” indicates most frequent; “12” indicates least frequent.

Phase 6: Revision of prototype based on usability test findings

Between January and March of 2003, the redesign team implemented a number of changes based on findings from the usability tests.

- To address the ambiguity of “Public health information outreach” that came to light during the usability tests, members of the Partners Steering Committee were polled regarding a replacement category heading. “Connecting information resources and public health” was chosen for this category heading that includes links to material on the information needs of the public health workforce and resources for developing information-related outreach programs.
- Although the mean is not an appropriate statistical procedure for ordinal data, the redesign team considered the averages computed from participants’ ordering of the content categories. The redesign team reached consensus on the use of the averages as a decision guide and placed categories with higher mean rankings above categories with lower mean rankings. A significant change resulting from this is that “Literature and guidelines” follows “Health promotion and health education.”
- To address participants’ apparent uncertainty about what might be available from the “Accessing the literature” portion of the “Literature and guidelines” page, the redesign team changed this subcategory to “Journal articles.”
- Following the recommendation of one of the usability test participants without a master’s in public health, the redesign team provided the full names of the Partners organizations at the bottom of the site’s top page in place of the organizations’ abbreviations.
- Within the pages that have multiple subcategories of links, the redesign team added a “return to top” link adjacent to the colored bars used to separate the subcategories. A “return to top” link was also added at the bottom of every secondary page on the site, regardless of whether the links on the page were arranged in subcategories.
- The redesign team made a number of changes to the appearance of the pages related to the Healthy People 2010 Information Access Project. Instead of beginning with a paragraph about the project, the redesigned page now has links to the search topics at the top. The Healthy People 2010 logo is now an active link that takes users to www.healthypeople.gov. A “PubMed Search” button replaces the red button on the current site, and the objective numbers appear at the end of each search topic.

- The redesign team alphabetized the list of links on the “Conferences and meetings” page.

In addition to the changes that were based on the usability test results, the redesign team implemented a news box feature. This feature is placed on the site’s top page with brief links to selected news items available from the sites maintained by the Partners organizations.

At the time of this report’s preparation, the redesign team is proceeding with the development of a sitemap to reflect the changes in the site’s content and structure. Team members are also proceeding with the implementation of ht://dig as the search engine for the site’s content.



Figure 1. Top page of redesigned site proposed for launch.



Figure 2. Redesigned "Literature and guidelines" page.

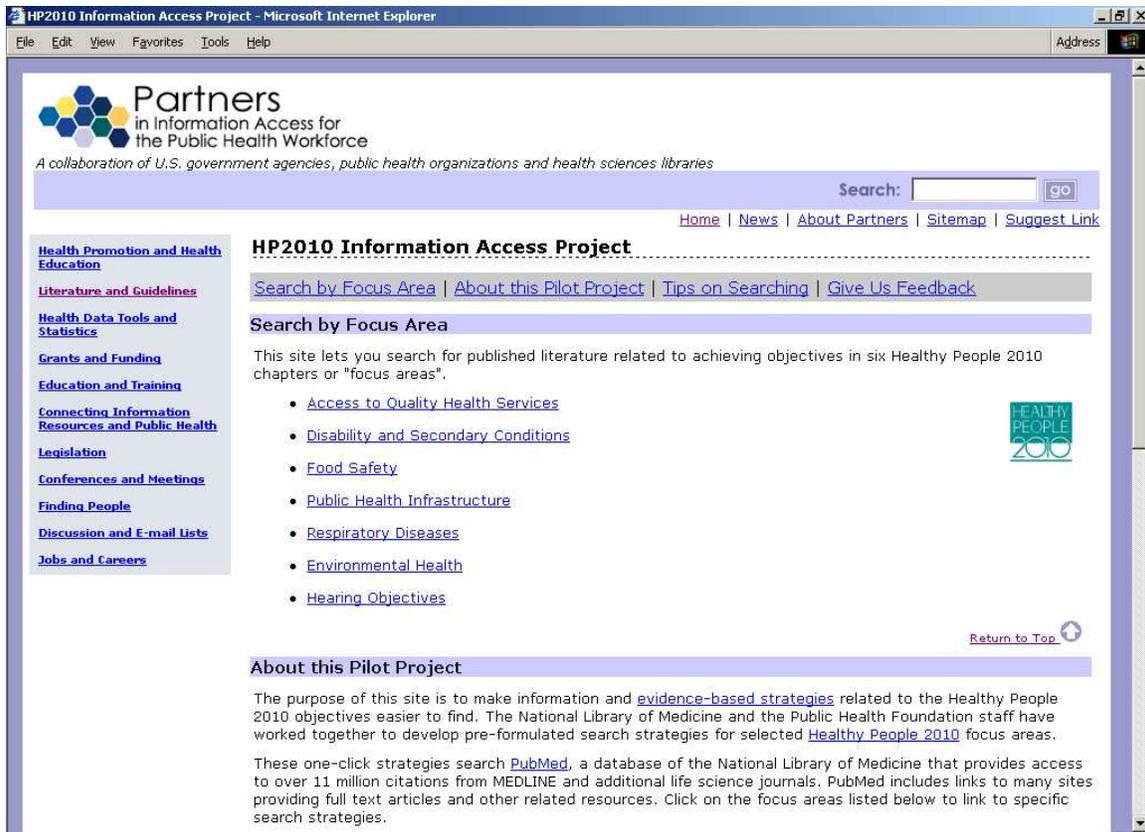


Figure 3. Redesigned "Healthy People 2010 Information Access Project" page.



Figure 4. Redesigned search interface for “Healthy People 2010 Information Access Project” page.

Phase 7: Site maintenance plan

Members of the redesign team have identified issues that will need to be addressed in a plan for the site’s maintenance. Elements of a site maintenance plan should include:

- **Adding links.** Policies are needed that address the selection of new links to be included in the Partners site. Among the issues to be considered are whether commercial organizations such as Ingenta.com will be represented with a link on the Partners site, and whether advocacy organizations such as Families USA will be represented. Policies are also needed to guide the depth of links that are created on the Partners site. The addition of new links should also be guided by procedures that address how links are identified and reviewed.
- **Editorial board.** The redesign of the Partners site has proceeded without representation of the public health workforce among redesign team members. An option for ensuring input from members of the public health workforce in the content and design of the site is the formation of an editorial board. An editorial board might consist of a subset of the

members of the Partners Steering Committee. In addition to reviewing changes to the Partners site, an editorial board might be responsible for identifying the need for new content and resources to be made available through the site.

- Detecting and correcting broken links. Software should be selected and implemented for detecting broken links. Procedures need to be developed related to the frequency of checks for broken links and the personnel responsible for repairing links. Linkscan is the software currently used to detect broken links on the National Network of Libraries of Medicine's site (<http://nnlm.gov>). At the time of this report's preparation, redesign team members are exploring whether the existing Linkscan license will extend to a new domain name.
- Monitoring and updating costs associated with fulltext availability of journals. A policy is needed to address whether the costs associated with the fulltext availability of journals will be monitored and posted with the link on the Partners site.
- Maintaining the news feature. Policies and procedures are needed for maintaining the items highlighted in the proposed news feature for the redesigned site. Issues to be considered include topics that will be represented among news items and personnel responsible for preparing, reviewing and approving news items.
- Archiving site content. Policies and procedures are needed to guide the removal of material from the Partners site.
- Ongoing evaluation. Policies are needed that address the ongoing evaluation of the Partners site. Regularly scheduled site reviews and usability tests are options for ensuring an ongoing evaluation.

Proposed next steps

The following are proposed next steps for the site to be considered at the next meeting of the Partners Steering Committee on March 17, 2003:

- On March 31 launch redesigned site as static html pages with the new domain name, <http://www.phpartners.org>.
- Before March 31, identify and resolve possible violations of accessibility standards, including Section 508 requirements. Early in the development of the site's redesign, a "Bobby check" was performed. The Bobby check utility, available at <http://bobby.watchfire.com>, reviews sites for compliance with accessibility standards. A second check is proposed prior to the launch of the redesigned site.

- Before March 31 implement ht://dig search engine.
- Before March 31 implement suggestions that may be offered during the Partners Steering Committee meeting on March 17.
- Before August 1 an NLM associate fellow will work with members of the site redesign team to prepare a draft site maintenance plan that addresses the issues identified in the previous section of this report. The associate fellow will also explore options related to “search engine optimization”; that is, the associate fellow will explore options for increasing the likelihood that relevant portions of the Partners site will be retrieved when searches are executed in Internet search engines.
- Before August 1 the associate fellow will also work with members of the redesign team to select software for supporting a transition to a database-driven approach for the site. As part of this software selection, the associate fellow will explore the possibility of offering an automatic newsletter that summarizes changes to the Partners site in a weekly email sent to subscribers. The associate fellow will also explore the feasibility of extending the Partners site search engine to include the option of searching the content of the separate sites maintained by the Partners organizations.
- Through a review of the literature and selected interviews conducted before August 1, the associate fellow will also address the need for new content or resources on the Partners site.
- Before August 29 the technical leads responsible for the site’s redesign will complete a transition to a database-driven approach for the site, implementing software recommended by the associate fellow.
- Before August 29 the order of the content categories will be reconsidered based on an analysis of the site’s use data from the previous four months.
- In October the Steering Committee will consider the draft site maintenance plan prepared by the associate fellow as well as his recommendations related to new content and resources. Until the Steering Committee has approved this plan, new links will continue to be added to the site following the review of the Partners project director at NLM. Items appearing in the news box will be prepared by members of the redesign team and reviewed by the Partners project director.

References

Instone K. Site usability heuristics for the web. Webreview [Internet] 1997 Oct 10 [cited 2002 Sept 9]; Available from:
http://www.webreview.com/1997/10_10/strategists/10_10_97_2.shtml

Nielsen J. Heuristic evaluation. In: Nielsen J, Mack RL, editors. Usability inspection methods, 25-64. New York: John Wiley and Sons; 1994.

Rambo N, Dunham P. Information needs and uses of the public health workforce. MMWR. 2002;49(6):118-120.

Appendix A: Current Partners site, top page

The screenshot shows a web browser window titled "Partners in Information Access for Public Health Professionals - Microsoft Internet Explorer". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The website content is as follows:

Partners in Information Access for Public Health Professionals

A collaborative project to provide public health professionals with timely, convenient access to information resources to help them improve the health of the American public.

The HP2010 Information Access Project provides automatic links to information on Healthy People 2010 objectives. Your feedback on this pilot project is welcomed.

Tools for public health professionals

- [AIDS-focus training materials](#)
- [Children's Environmental Health information resources](#)
- [Resources of special interest](#)
- [Education and training](#)
- [Grants and grant writing](#)
- [For librarians and information specialists](#)
- [Needs assessment](#)

About Partners in Information Access

- [Partners project background information](#)
- [Calendar of events](#)
- [NLM public health grants](#)
- [NN/LM public health projects](#)
- [Participating members](#)
- [Project committee members](#)

Wired Communities:
Putting the e in public health
Satellite Broadcast and Webcast
January 31, 2003 • 2-3pm ET

The left sidebar contains logos for APHA, ASPH (ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH), ASTHO, CDC (SAFER, HEALTHIER, PEOPLE), HRSA, and NACCHO.

The browser's status bar at the bottom shows "Internet".

Appendix B: Current Partners site, “Resources of special interest” page

Tools for Public Health Professionals - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Partners in Information Access for Public Health Professionals

Resources of special interest

- [CDC WONDER](#)
- [Children's Health Insurance Program Publications](#) - National Academy for State Health Policy
- [Directory of Health and Human Services Data Resources \(1999 Edition\)](#)
Compilation of information about major data collection systems sponsored by the U.S. Department of Health and Human Services
- [HealthWeb / Public Health](#)
- [BioSites / Public Health](#)
- [Health Education Resource Exchange \(H.E.R.E. in Washington\)](#)
- [NLM Databases including MEDLINE](#)
- [State and Territorial Health Agencies on the Web](#) - ASTHO
- [Electronic Pocket Guide to Cases of Medicine & Public Health Collaboration](#)
- [Healthy People 2010: Field Guide to Health Planning](#) - Public Health Foundation
- [Northwest Center for Public Health Practice](#)
- [Opening Your Health Department to the World: A Website Primer](#) - CDC/PHPPO/INPHO
- [Public Health Functions Project](#)
- [Public Health Knowledge](#)
- [PAHO Disaster/Humanitarian Assistance](#)
- [World Health News](#)
- [Native Health Research Database](#)
- [Partnerships for Health in the New Millennium Conference](#) - January 24-28, 2000
- Consult the [Toxicology and Environmental Health Information Program](#) for information on toxicology, hazardous chemicals, toxicological effects of drugs, etc.
- [Community Health Status Indicators Project](#)

Education and training

- [Thinking the Unthinkable - Biochemical Terrorism and Disasters: Information Resources for Medical Librarians](#) - CE Course

Logos: APHA, ASPH (ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH), ASTHO, CDC (WATER - HEALTHIER - PEOPLE), HRSA, NACCHO

Internet

Appendix C: Current Partners site, NN/LM navigation menu, search link and search feature

Tools for Public Health Professionals - Microsoft Internet Explorer

File Edit View Favorites Tools Help

- [The Federal Commons](#)

For librarians and information specialists

- [Public Health/Health Administration Section of MLA](#)
- [Public Health Informatics: Current Bibliographies in Medicine](#) - Compiled by the National Library of Medicine (2001-2)
- [Public Health Informatics: Current Bibliographies in Medicine](#) - Compiled by the National Library of Medicine (1996)
- **Publications**
 - [The Environment of Local Public Health: What Does Population-based Focus Really Mean?](#) - By Neil Rambo, Public Health Informatics Specialist
 - [Public Health Information Initiative: Web-Based Access to Information Resources](#) - By Tammy Mays, Outreach Librarian
 - Humphreys, B.L., Ruffin, A.B., Cahn, M.A., Rambo, N. "Powerful Connections for Public Health: The National Library of Medicine and the National Network of Libraries of Medicine." *American Journal of Public Health*, Vol. 89, No. 11, November 1999, pp.1633-1636.
 - [Measuring the Difference: Guide to Planning and Evaluating Health Information Outreach \(September 2000\)](#)

Needs Assessment

- [Defining the Education and Training Needs of Primary Care Groups](#) - PCG Resource Unit, Public Health Resource Unit, National Health Service (U.K.)
- [Informatics Education in Public Health](#) - William A. Yasoff, MD, PhD
- [Profile and Training Needs Assessment of Community/Public Health Professionals in Washington State](#) - Northwest Center for Public Health Practice, University of Washington
- [Sample Training Needs Assessment: HPHIVE PDF](#) (92 kb) - June 1999, University of Hawaii and Hawaii Medical Library
- [Training Needs Assessment and Course Planning](#) - The School of Public Health at the University of California at Berkeley
- [Information Needs and Uses of the Public Health Workforce -- Washington, 1997-1998](#) - MMWR February 18, 2000 / 49 (06),118-120

[NN/LM Home](#) : [Health Information](#) | [Librarian & Health Educator Resources](#) | [Projects](#) | [About Us](#) | [Announcements](#) | [Search](#)
[Policy on Linking](#) | [Disclaimer](#) | [Freedom of Information Act](#) | [NLM](#) | [NIH](#) | [HHS](#)
[NN/LM Web Team](#) | Revised: January 7, 2003
<http://nmln.gov/partners/tools.html>

Funded by

NN/LM - Search - Microsoft Internet Explorer

File Edit View Favorites Tools Help

[NN/LM](#) [Health Information](#) | [Librarian & Health Educator Resources](#) | [Projects](#) | [About Us](#) | [Announcements](#) | [Search](#)

Search

Need Health Information? Go to MEDLINEplus
 Concerned about your health or that of a friend or family member? Looking for information on a particular medical topic (including prevention, diseases, symptoms, diagnosis, therapies, etc.)?

Search MEDLINEplus:

- The [National Library of Medicine](#) has many [free databases](#) that you can search.
- [Looking for Health Information?](#) -- find the library services you need.
- [Internet Discovery Tools](#) -- selected Internet resources that may be of interest to Health Professionals, Librarians, and Consumers.

Find a library.

- [NN/LM Members](#) -- to find a health library to serve you.

Search the National Network of Libraries of Medicine (NN/LM) Website.

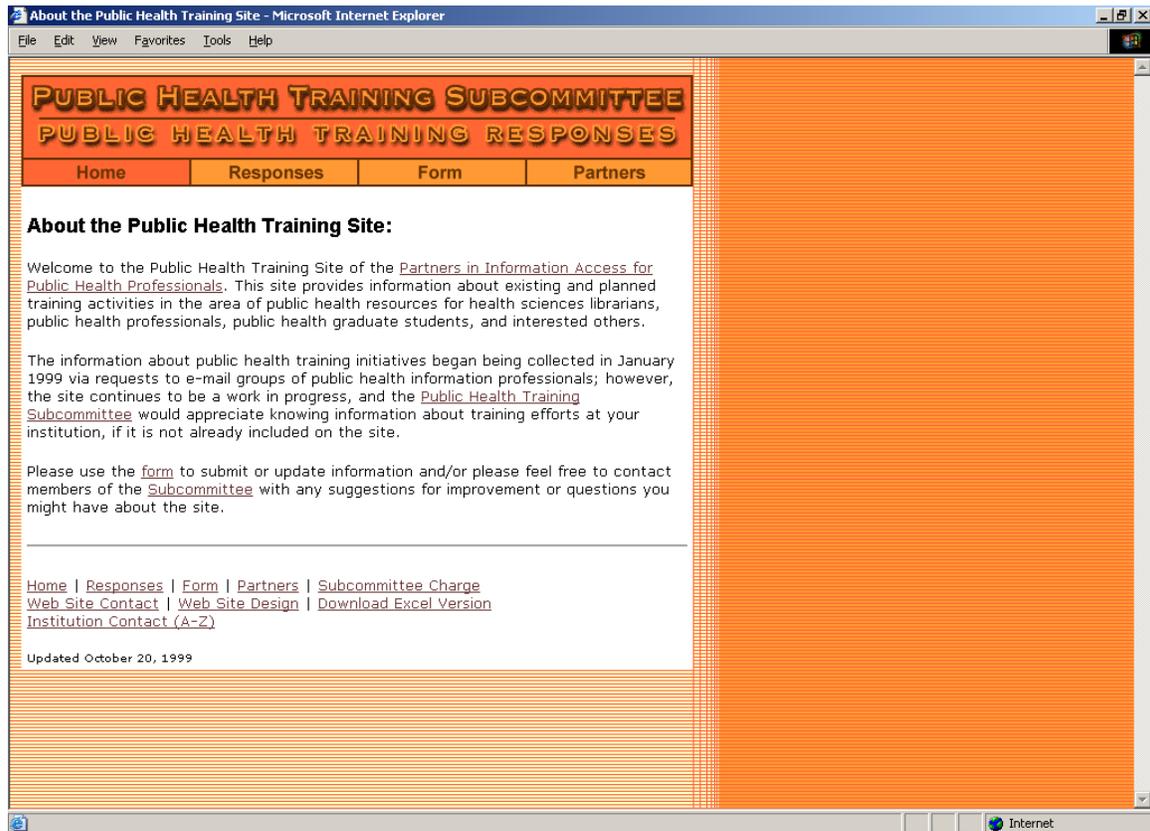
Use this to find words in pages on the nmln.gov site...

[Advanced Search](#)

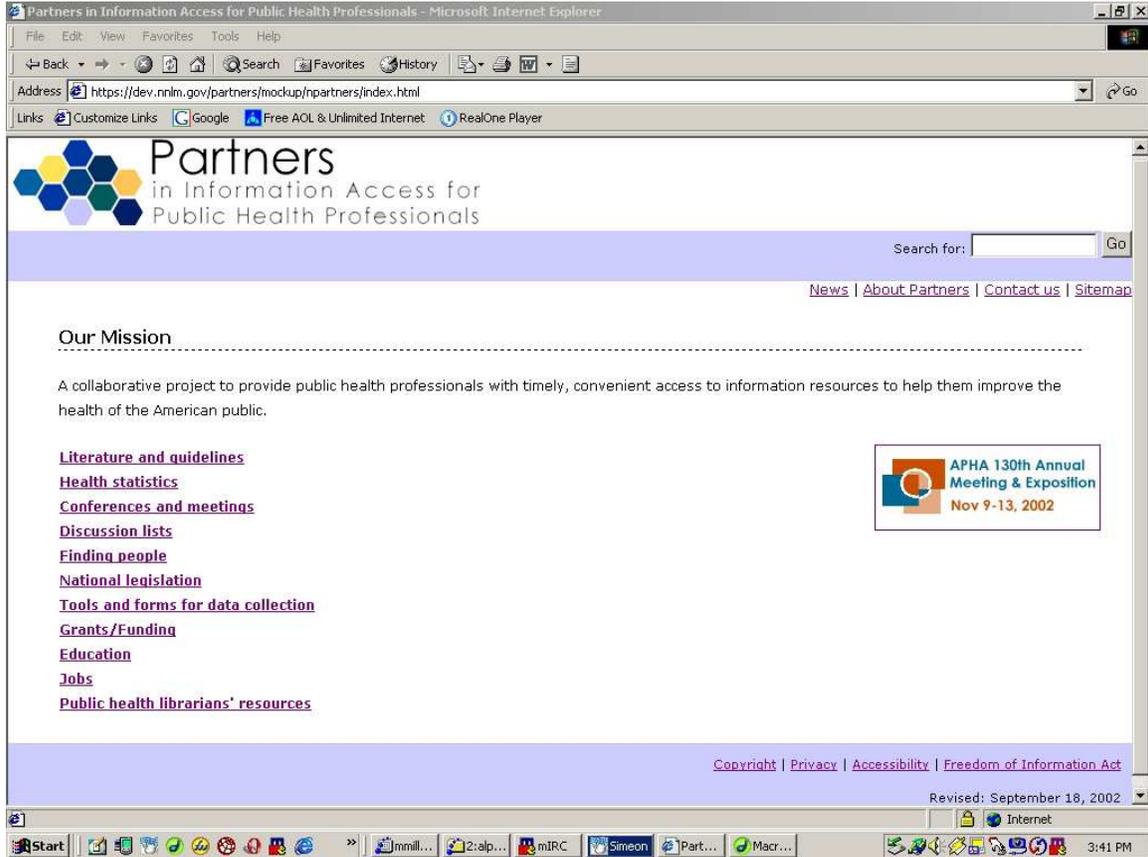
[NN/LM Home](#) : [Health Information](#) | [Librarian & Health Educator Resources](#) | [Projects](#) | [About Us](#) | [Announcements](#) | [Search](#)
[Policy on Linking](#) | [Disclaimer](#) | [Freedom of Information Act](#) | [NLM](#) | [NIH](#) | [HHS](#)
[NN/LM Web Team](#) | Revised: November 8, 2001
<http://nmln.gov/search/>

Funded by

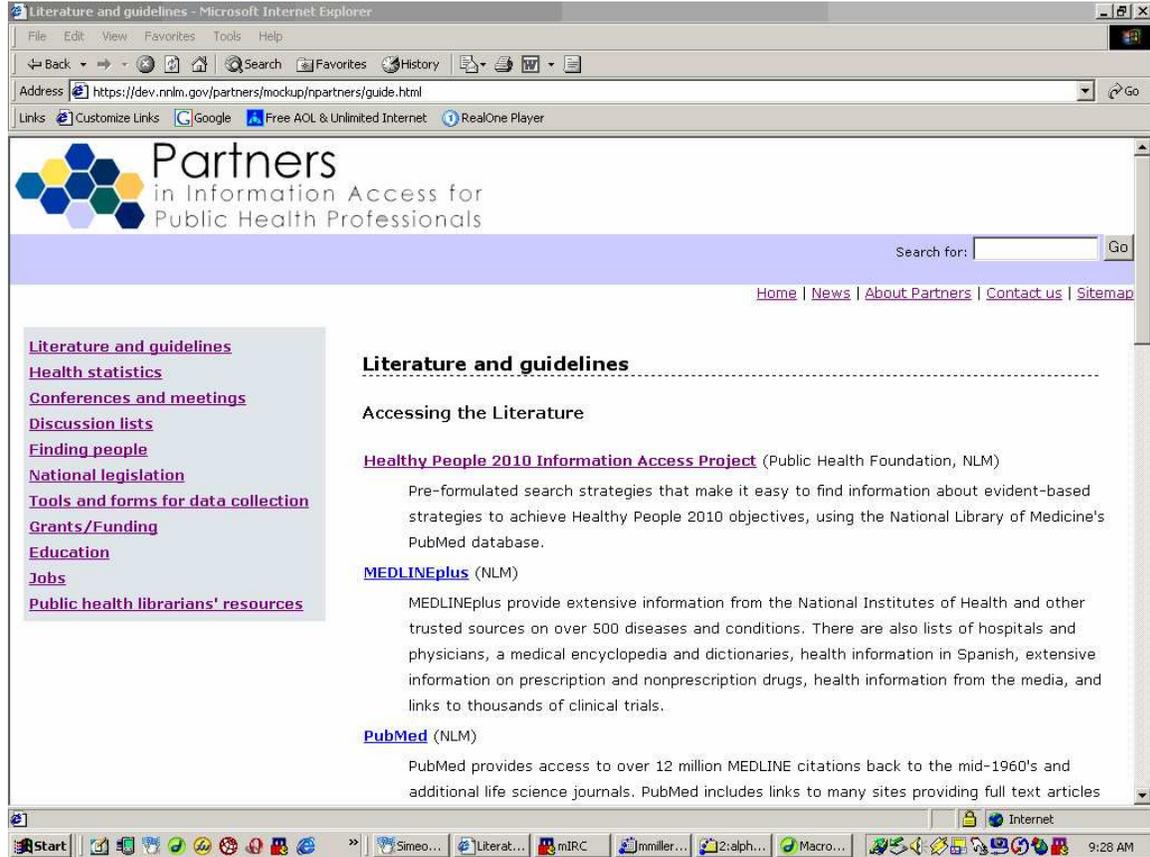
Appendix D: Current Partners site, “Public health training responses” page



Appendix E: Redesign mock-up, top page



Appendix F: Redesign mock-up, “Literature and guidelines” page



Appendix G: Feedback on mock-up from Partners Steering Committee representatives

Font Size/General Layout

Be able to increase font size using the browser.

Suggestion implemented.

Increase size of menu text and body text.

Suggestion implemented.

Increase font size for “A collaboration...”

Suggestion implemented.

There’s too much unused white space on the top page. “Why not put something important here?”

Suggestion implemented - added news and ads.

Since the Healthy People 2010 Information Access Project is (I believe) the most heavily used resource, I would add a permanent box to the main page (like we do for M+ on the NLM homepage) in addition to the APHA meeting box that is there now that will change as to content.

Suggestion implemented.

In the footer add “Partners Organizations” before the abbreviations links. Add “Partners:” or “Visit the Partners’ web sites:” to clarify that these organizations comprise the Partners.

Suggestion implemented.

There’s too much text.

Suggestion implemented – link annotations were abbreviated.

Consider differentiating link title font and annotations font.

Suggestion not implemented; redesign team agreed that this may violate best practices in interface design.

Increase spacing between links to make it easier to differentiate.

Suggestion implemented.

Logo/Tagline/Search Feature

I expected to see the tagline “Linking the Public Health Workforce to Information for Improved Practice” in the logo that appears in each page. I would suggest using it in place of the “A collaboration of U.S. government agencies, public health organizations and health sciences libraries.” I would then move the “A

collaboration...” to the top of the listing you get to when you use the About the Partners navigation bar link, i.e., make that page read at the top: “About the Partners Project – A collaboration...” OR if that collaboration info needs to stay on the front page as “identification” of whose web site this is, how about adding the tagline to the blue bar that appears on each secondary page with the search box – so it’s always there, not just on the home page.

Suggestion not implemented. The team reached consensus that “A collaboration...” should remain at the top of every page in combination with the site’s logo. The team reached consensus about not adding additional text to the colored bar at the top of every page.

The tagline text “doesn’t link to anything... doesn’t seem to have any purpose just sitting there.”

The tagline text was reformatted to address this concern.

Logo – make alt text more meaningful, such as words in the graphic.

Suggestion implemented.

Is the logo too large?

Suggestion implemented – the size of the “beehive” was reduced.

Consider having search box directly across from the logo.

Suggestion not implemented. The redesign team agreed that it would be preferable for the search feature to be included in the colored bar to emphasize its availability.

It would be great to have the capability of searching across all of the resources listed under each category, e.g. it would be very useful to have the search capacity to find all legislation relating to patient records – that is, a search across all of the web sites listed under National Legislation.

Suggestion not implemented, but noted among issues to be addressed in the next steps for the site.

Have the Search button or the text below it read “Search This Site.”

Suggestion not implemented – the search feature relies on “Search” to indicate the functionality of the search feature.

Add a note under the search button about whether Boolean operators can be used.

Suggestion not implemented. The team reached consensus that the additional text would unnecessarily clutter the design.

Suggestions Related to Categories

“Compress” categories so that there are fewer and you can see them all at once.
Suggestion not implemented. Categories were revised, but none were eliminated. Categories were reformatted to display on one screen for most commonly used resolutions.

Create separate categories for “Access to the Literature” and “Publications and Guidelines.”

Suggestion not implemented – the team reached consensus that these should remain as separate headings on the same page.

Have subcategories stay visible on the side bar so you can go down to one of them without having to scroll down.

This suggestion was addressed by adding a row to the top of the page with shortcuts to the subcategory headings.

Provide subcategories as links on the top page. See www.medguide.org.zm as example.

Suggestion implemented.

Where there are subcategories, such as Literature page, have links to jump down to the subcategories.

Suggestion implemented.

When clicking on the categories like “Literature and Guidelines,” there should be a one or two sentence explanation of what this is and is not. We probably want users to understand that the information is coming from the Partner sites and is not meant to be comprehensive to the field of public health.

Suggestion implemented.

News

I would add a link at the bottom of the News page to the Discussion and E-mail Lists page – and vice versa.

Suggestion implemented – appropriate links added to the text at the top of these pages.

About Partners

Decrease the size of the 10 Partners’ logos.

Suggestion implemented.

On the About the Partners Project page, add the acronyms next to the links for the Partners by name. (American Public Health Association (APHA), etc.).

Suggestion implemented.

Contact Us

On Contact Us, emphasize both parts equally.

This suggestion was addressed by creating the “Suggest Link” page with contact information at the bottom. Contact information was also added to the “About Us” page.

Make the “Suggest a Link” its own link from the main navigation bar. People won’t find it as easily on Contact Us.

Suggestion implemented.

With Suggest a Link, add a note that you particularly invite suggestions for links that serve as gateways to information on a variety of topics. If there are other restrictions to the type of links you will post (only gov’t and nonprofit?), please state them.

Suggestion implemented.

Literature and Guidelines

Create separate categories for “Access to the Literature” and “Publications and Guidelines.”

Suggestion not implemented – the team reached consensus that these should remain as separate headings on the same page.

On Literature page, the long alpha list of publications and reports is daunting. Organize publications and reports by sponsor – CDC pubs, APHA pubs, state pubs, HHS pubs.

Suggestion implemented.

Be consistent in links to association publications (ASPH pubs, HRSA pubs, but also Publications (Assoc of State and Territorial)).

Suggestion implemented.

HRSA Publications and Publications (HRSA) – what is the difference?

Suggestion implemented with consistency in link text.

Consider grouping publications: “Publications Related to Schools of Public Health”; “Publications Related to State Health Departments”; Publications Related to Local Health Departments”; “Publications by HRSA and HRSA-Funded Projects.”

Suggestion not implemented – the team reached consensus to follow the suggestion of organizing on the basis of sponsor.

I would add the acronym to each of the “Publications” links.

This suggestion was addressed with the addition of the full name of the responsible organization as a heading.

On Literature page under Journals – add a link to the Core Public Health Journal Project (www.phha.mlanet.org/corejournal.html).
Suggestion implemented.

On Literature page – add a link to Ingenta www.ingenta.com - if commercial sites are permitted.
Suggestion not implemented – linking to commercial sites is identified as an issue to be addressed in the site maintenance plan.

In annotations for journals, indicate which require subscriptions or membership to access fulltext. Also indicate whether fulltext is even available.
Suggestion not implemented – team reached consensus that monitoring and updating the status of fulltext availability for each journal is beyond the scope of the redesign. This issue is among those to be addressed in the site maintenance plan.

On Literature page – add The Link (Council on Linkages Between Academia and Public Health Practice) www.phf.org/Link/thelink.htm.
Suggestion implemented.

I suggest separating out training related materials/courses, e.g., Children’s Health, from the publications/reports.
Suggestion not implemented. The team reached consensus that this suggestion should be addressed by having duplicate links available on the “Education and training” page.

It’s difficult to tell the difference among items under the “Accessing” subcategory.
Suggestion implemented – brief annotations were added.

Provide dates for citations, such as to Neil’s paper.
Suggestion implemented.

The entry for Public Health Reports from the PHF are not journals and shouldn’t be listed under Journals – “those are just regular PHF reports.” Should be under “Publications, Reports” rather than Journals.
Suggestion not implemented – upon investigation, the team determined that Public Health Reports is a bi-monthly peer-reviewed journal.

Public Health Reports is not a Public Health Foundation publication. This should be listed as USPHS/ASPH only.
Suggestion implemented.

I wonder how useful it will be to just link to large sections of reports and publications from other sites. It seems preferable to list the individual reports and publications, but this would be a MAJOR maintenance job and would require much categorization. Maybe this is the best that can be done for now.

This suggestion, related to the depth of links, is identified among the issues to be resolved in the site maintenance plan.

PHF annotations – “reports that are not copyrighted, many of which are in PDF format.”

Suggestion not implemented. The links to the individual reports from the Public Health Foundation’s site indicate which are in PDF format. The team reached consensus that determining and preparing annotations about copyright status are beyond the scope of the redesign.

Under Newsletters – annotation for Friday Letter should mention that it’s available by email.

Suggestion not implemented. This feature is noted at the top of the linked page on the ASPH site.

NACCHO Exchange (under Newsletters) doesn’t load.

Suggestion implemented.

Provide the cost in the annotation for the APHA Book Review service.

Suggestion not implemented. The team reached consensus that monitoring and indicating any changes in the cost of this service is beyond the scope of the redesign.

Add links to MLA’s PH/HA News – www.phha.mlanet.org/phhanews.html - and GIS & Public Health –

www.cdc.gov/nchs/about/otheract/gis/gis_publichealthinfo.htm

Suggestion implemented.

Grants/Funding

On Grants/Funding be consistent: “APHA Funding opps (Am Pub Health Assoc); RICHS Funding opps (Rural Info...); NIH Grants and funding opps (National...) Put what does HRSA/ASPH stands for next to HRSA/ASPH Cooperative Agreement?

Suggestion implemented.

Difficult to find easily. Suggest listing as: “CDC funding opps”; “HRSA funding opps”; “NLM funding opps”; “NIH funding opps”; “Funding opps available to: Schools of Public Health... Medical Colleges (AAMC).”

Suggestion implemented.

Education and Training

Add description of what the visitor can find in this section, i.e., training opportunities available on-site, distance based, etc.

Suggestion implemented.

There is currently a mix of training resource listings and actual training courses. Suggest separating these.

Suggestion implemented.

Change: ASPH distance education and Schools of Public Health. These are the same. Just list as Training courses offered by Accredited Schools of Public Health; Distance Education Programs offered by the accredited schools of public health.

This suggestion was addressed by having the link to distance education programs open the “distance education” menu in ASPH’s left navigation menu.

Under Public Health Librarians’ Resources – move links to “finding and using health statistics” and “Supercourse” to Training page.

This suggestion was addressing by moving the links to two pages: “Health data tools and statistics” and “Education and training.”

Under Tools and Forms – move “Sample Training Needs Assessment: HiPHIVE” to Ed and Training.

Suggestion implemented.

Under Education and Training – add link to NN/LM’s classes.

Suggestion implemented.

Under Education and Training – add link to Bioterrorism Preparedness Online Tools and Resources Related to Education and Training

(www.phf.org/BioterrorismPreparednessResources.pdf) - A compilation of resources to assist states and localities in developing and implementing their plans for assessing and building the public health workforce.

Suggestion implemented.

Under Ed and Training – revise annotation for TrainingFinder.org – “the nation’s largest clearinghouse of learning opportunities for public health professionals, with searchable information about hundreds of public and private continuing education courses plus other links to other training resources.”

Suggestion implemented.

Under Ed and Training – list TrainingFinder.org under a heading such as “training information clearinghouse.”

Suggestion not implemented. The redesign team reached consensus that adding a heading that included only one link would be undesirable.

Under Ed and Training – remove the Public Health Functions link. This is a report, not an actual training, and may best be listed under the Lit and Guidelines section.

Suggestion implemented.

Health Promotion and Health Education

On Health Promotion – organize links by sponsor.

Suggestion implemented.

Add how often these sites are updated.

Suggestion not implemented. The redesign team reached consensus that monitoring and indicating the frequency with which changes are made to the linked sites falls beyond the scope of the redesign.

On Health Promotion – add link to Healthfinder™ www.healthfinder.gov - Health education information, resources, and organizations from reliable sources (in English and Spanish).

Suggestion implemented.

Correct annotations for M+ and others “from the National Institutes of Health, Department of Health and Human Services, and other trusted sources...”

Suggestion implemented.

Move FASTATS from Health Promotion to Statistics.

This suggestion was addressed by having the links appear in both pages.

Public Health Librarians’ Resources

Change how we call the category for public health librarians. “Information Resource Needs and Outreach.”

Suggestion addressed by revising this category to “Public health information outreach” in the mock-up and “Connecting information resources and public health” in the prototype.

I am uncomfortable with the “Public Health Librarians’ Resources” link category. Seems like this section has info of interest to many PH practitioners not just PH librarians – but maybe others won’t go there due to the name? ... PH Information Resources or even PH Informationist Resources?

Suggestion addressed by revising this category to “Public health information outreach” in the mock-up and “Connecting information resources and public health” in the prototype.

I found that some of the links here would be helpful to all, e.g. Environment of Local PH and also the stats course.

Suggestion addressed by revising this category to “Public health information outreach” in the mock-up and “Connecting information resources and public health” in the prototype.

Under Public Health Librarians’ Resources – move links to “finding and using health statistics” and “Supercourse” to Training page.

This suggestion was addressing by moving the links to two pages: “Health data tools and statistics” and “Education and training.”

Under Public Health Librarians’ Resources – “Public Health Information Initiative: Web-Based Access to Information Resources” links to the wrong page.

This suggestion was addressed by linking to the portion within the page that corresponds to the link title.

Correct text of link to “Finding and Using Health Statistics: A Self-Study Course” to be consistent with how it appears on the Health Statistics page.

This suggestion was addressed by linking to this site from the “Health data tools and statistics” page and the “Education and training” page. Links on the “Public health librarians’ resources” that were not related to information outreach were removed from “Public health information outreach” page, but retained on other pages in the site.

Health Statistics

Add the HSR Tools database: www.nlm.nih.gov/nichsr/hsrr_search/
Suggestion implemented.

Change “Health Statistics” to “Health Data & Statistics.”

This suggestion was addressed by changing this category to “Health data tools and statistics.”

Move FASTATS from Health Promotion to Statistics.

This suggestion was addressing by having the links appear in both pages.

Under Health Statistics – couldn’t get Community Health Status Indicators to load.

This resource is no longer available on the Web, but the link leads to information on the Public Health Foundation’s site that addresses how the data may be obtained on CD-ROM.

Under Health Statistics – couldn’t get Health Data (PAHO) to load.

This link was investigated and determined to be functional.

There are numerous listings under the “Health Statistics” section that are useful. I’m wondering, however, if this section could be broadened to include public health infrastructure data. The section could be called “public health data” and

have two subsections. Under public health infrastructure data, there are reports that ASTHO, NACCHO, PHF, and others have that contain useful data on structure, composition and funding of health agencies.

This suggestion was addressed by adding a “Public health infrastructure data” section in the page.

Tools and Forms for Data Collection

... can we add a third area besides the two we have (Tools for.. and Forms) called “Search for Other Tools and Forms” and under it have a link to NICHSR’s HSRR database and perhaps to the DHHS site Scanlon is in charge of.

Suggestion implemented.

Under Tools and Forms – move “Sample Training Needs Assessment: HiPHIVE” to Ed and Training.

Suggestion implemented.

Under Tools for Data Collection and Planning, remove the link for training needs assessment and add a link to the CDC Office of Workforce Policy and Planning – www.phppo.cdc.gov/owpp/assessmenttools.asp - A compilation of several training needs assessments and capacity assessments for the public health and health care workforce.

Suggestion implemented.

Under Tools and Forms, I think a general link to the PHF “tools and resources” URL may be preferable than only linking to the Healthy People tools.

Suggestion implemented.

Under “forms,” if specific data collection forms are going to be listed, including those used for collecting infrastructure data also should be included, such as the National Public Health Performance Standards Program instruments and the public health expenditures data collection instruments. Both are accessible from the PHF web site.

Suggestion implemented.

The Forms listed... seem extremely specific and probably could be deleted from the Partners site.

Suggestion implemented.

Why are forms listed? Will people actually be able to get the forms? Is this what is intended? A brief sentence or two describing what is on this page and how it will help.

Suggestion implemented – “extremely specific” forms were removed and a summary of the links was added at the top of the page.

National Legislation

Under Legislation – the CDC legislative update has moved to

www.cdc.gov/washington

Suggestion implemented.

Change the National Legislation link to simply Legislation and then split the secondary page into National and State keeping the current links under National and adding the NASCIO state search site (<https://www.nascio.org/stateSearch>) under State and perhaps some of the others found at

<http://lcweb.loc.gov/global/state/stategov.html> or just a link to that site too?

Suggestion implemented.

Conferences and Meetings

I actually didn't find this helpful at all. There is probably going to be lots of duplication. For example, ASPH, PHF, ASTHO and NACCHO have many of the same meetings. I also find that the way it is listed is not helpful. Instead, I suggest either reclassifying to:

- Conferences for State Health Agency Personnel
- Conferences for Local...
- Conferences for Medical Personnel
- Etc

Or just note under the member section that people can visit these sites for information, including list of upcoming meetings/conferences of interest to their members.

This suggestion was not implemented. The consensus among team members was that grouping meetings by intended audience would be problematic, particularly for meetings attended by multiple segments of the public health workforce.

Discussion and E-mail Lists

I would add a link at the bottom of the News page to the Discussion and E-mail Lists page – and vice versa.

Suggestion implemented.

Consolidate CDC's email lists?

This suggestion was forwarded to staff at the CDC.

Add FDA's email lists www.fda.gov/emaillist.html

Suggestion implemented.

Finding People

I'm not sure about the title "Finding People." Perhaps "Public Health Organizations" or "Networking Tools"?

Suggestion not implemented. The consensus among team members was that the proposed headings were not as effective as "Finding people" for communicating the content of this page.

The only one that doesn't have a description is the HHS link. That should be added.

Suggestion implemented.

Jobs and Careers

Under Jobs and Careers – link to something that promotes health sciences librarianship (www.mlanet.org/about/planning/recruit_tf_plan.html ?)

Suggestion implemented.

Under Jobs & Careers – list Public Health Employment Connection

<http://cfusion.sph.emory.edu/PHEC/phec.cfm>

Suggestion implemented.

Add HHS to the Jobs and Careers page (<http://www.dhhs.gov/jobs/index.html>).

Suggestion implemented.

Other Feedback

Provide a link to "get" Acrobat.

This suggestion was addressed by implementing an icon that indicates whether a link is to a PDF document.

The pages are slow to load.

Team members explored this concern by accessing the site by modem as well as direct Internet connection. Those investigating the site's loading speed reported minimal delays.

Definitely not as nice in Netscape.

The redesigned site is optimized for viewing in Internet Explorer 5.0 and higher and Netscape Navigator 6.0 and higher. The redesigned site relies on cascading style sheets for its presentation and layout. It is well known that Netscape Navigator 4.x implements cascading style sheet specifications poorly. Recent use statistics suggests that fewer than 10% of users access the site using Netscape Navigator 4.x.

Too flat/plain – needs some variation.

This suggestion was addressed by developing ads with visual interest.

Appendix H: Usability test protocol

Pre-Test Survey Partners in Information Access for the Public Health Workforce

1. Name:

2. Gender:

3. Age:

4. Current occupation:

5. About how much time do you spend using web sites every week, on average?

- Less than 30 minutes a week
- 30 minutes - 1 hour a week
- 1-3 hours a week
- 3-10 hours a week
- More than 10 hours a week

6. Please select your highest educational degree completed:

- High school
- Associate degree
- Bachelor's degree
- Master's degree
- Doctoral degree
- Other: _____

7. Have you ever visited the Partners site before?

- ☒ Yes
- ☒ No
- ☒ Unsure

If **yes**, how often have you visited the site?

- ☒ Daily
- ☒ Once a week
- ☒ Once a month
- ☒ Less than once a month
- ☒ Less than once a year
- ☒ Just once

If **yes**, what was the purpose of your visit?

If **yes**, what was your opinion of the site?

8. What do you typically do with health-related information you might find on the web?

Name:

Participant Number:

Date:

A. Explain purpose of the usability testing.

- To identify ways we might improve a site. The site is maintained as a cooperative effort by the National Library of Medicine with eight other public health agencies and organizations. The name of this collaboration is “Partners in Information Access for the Public Health Workforce,” and the site is called “the Partners site.”
- The usability testing we’ll do today will involve working with a redesign of the site that has not yet been publicly released. So you might have visited the Partners site in the past, but this redesigned site should be new to you.
- The data collection will be in four parts. First there is a brief survey to gather basic demographic information about you and your experience using the web.
- In the second part I’ll ask you to sort 12 categories of information. I’ll ask you to sort them based on how frequently you think you might use them and to describe the information you would expect to find in each category.
- The third part of the data collection will involve your working on five tasks that can be completed using the site. It’s possible to find the information requested in each task on the Partners site or on one of the sites linked from the Partners site.
- The fourth and last part of the data collection will be a brief interview after you’ve worked on the tasks. I’ll ask you a few questions about your impressions of the site and any suggestions you might have for improving it.
- All of your data will be kept confidential, and you will not be identified in any reports that rely on your data.
- Do you have any questions about the process at this point?

B. Administer pre-test survey.

C. Administer card sort. Present cards in alphabetical order.

- Please sit in front of the microphone, and we'll begin audio taping what you say.
- Please think of these as 12 categories of information. I'd like you first to sort them on the basis of how often you think you might use each category of information. Please arrange them on the table in an order that reflects your expected frequency of use. Please also make a note on the paper indicating the order. Put a "1" on beside the category that you think you would use most often, a "2" beside the next most frequently-used category, and so on to the 12th category, which would be the one you would use least often. After you've sorted the categories, I'll ask you to describe the information you would expect to be included in each.
- Now please go through each category and say a little about the information you would expect to be available in each category.

___ Conferences and Meetings:

___ Discussion and E-mail Lists:

___ Education and Training:

___ Finding People:

___ Grants and Funding:

___ Health Data Tools and Statistics:

___ Health Promotion and Health Education:

___ Jobs and Careers:

___ Legislation:

___ Literature and Guidelines:

___ News in Public Health:

___ Public Health Information Outreach:

D. Administer the tasks.

- Now I'll ask you to work on five tasks that involve using the Partners site. Each task can be completed using the Partners site or one of the links from the Partners site.
- Keep in mind that the focus on our evaluation is the site itself – not you or your ability to find information.
- Please work on each task at a pace that's normal and comfortable for you. I'll be keeping track of how long it takes to complete each task, but – again – please work at a pace that's normal and comfortable. If you haven't completed a task after 10 minutes, I'll just ask you to stop and we'll move on to the next task. You can abandon a search at any time. Just tell me you'd like to give up on this one, and we'll move on to the next one.
- While you're working, it's very important that you **think aloud**. That is, please verbalize your thoughts as you attempt to complete each task. If you're silent for a while, I'll ask you to share your thoughts.
- We're videotaping just what appears on the screen and audiotaping what you say. So your face and non-verbal expressions are not being videotaped.
- We'll begin each task back at the homepage for the Partners site, and I'll ask you to read each task aloud before beginning your work on it.
- Before we begin, let me just let you know that the search feature is not working at this point, and that the sitemap is not in place yet. If you're working on a task and you'd like to use the search feature or sitemap, just verbalize that and see if you resolve the question by navigating through the links on the site.

Task 1

"Where will ASTHO holds its next annual meeting?"

Time:

Easy / Some difficulty / Challenging

Notable problems:

Significant feedback:

Task 2

"Who is the president of Hawaii's public health association?"

Time:

Easy / Some difficulty / Challenging

Notable problems:

Significant feedback:

Task 3

"Identify the CEPH-accredited school of public health in Louisiana."

Time:

Easy / Some difficulty / Challenging

Notable problems:

Significant feedback:

Task 4

"One of the Healthy People 2010 objectives is to increase the proportion of the population with health insurance. Can you identify journal articles that address this issue?"

Time:

Easy / Some difficulty / Challenging

Notable problems:

Significant feedback:

Task 5

"What proportion of births in the United States are low-birthweight births?"

Time:

Easy / Some difficulty / Challenging

Notable problems:

Significant feedback:

E. Post-Test Interview Questions

- "What do you like about this site?"

- "What works best for you on this site?"

- "What would you change?"

- "How might we improve the site?"

F. Ask to sign the form and thank again.

Appendix I: Usability test data

Usability Test Participant 1

Gender:

Female

Age:

53

Occupation:

Librarian

Time spent using web sites:

More than 10 hours a week

Highest educational degree:

Master's

Ever used Partners site? Yes

If yes, how often have you visited the site?

Less than once a month

If yes, what was the purpose of your visit?

To find specific documents.

If yes, what was your opinion of the site?

Not very useful to my work.

What do you typically do with health-related information you might find on the web?

Train others to identify, evaluate it.

Category rankings:

- 1 Health promotion and health education
- 2 Grants and funding
- 3 Education and training
- 4 Literature and guidelines
- 5 Health data tools and statistics
- 6 Public health information outreach
- 7 Conferences and meetings
- 8 Legislation
- 9 News in public health
- 10 Finding people
- 11 Discussion and email lists
- 12 Jobs and careers

Notable feedback about categories:

- § Health promotion and health education. She expected links to “content as well as organizations” as well as links to theories used in health promotion/education.
- § Conferences and meetings. She expected local as well as national meetings.
- § Legislation. She expected links to policy as well as information about specific bills.

Task 1: "Where will ASTHO holds its next annual meeting?"

Easy (3 minutes). Conferences and meetings links need to be arranged alphabetically.

Task 2: "Who is the president of Hawaii's public health association?"

Easy (less than 1 minute).

Task 3: "Identify the CEPH-accredited school of public health in Louisiana."

Easy (3 minutes). Was unsure about meaning of CEPH accreditation. Visited Tulane's web site to explore this issue.

Task 4: "One of the Healthy People 2010 objectives is to increase the proportion of the population with health insurance. Can you identify journal articles that address this issue?"

Some difficulty (3 minutes). Didn't follow HP2010 Information Access link at first. Went to “literature and guidelines,” then to the “journals” subcategory,” then to “public health reports.” Recommended adding links to the NLM Gateway and AIDSinfo on the “literature and guidelines” page.

Task 5: "What proportion of births in the United States are low-birthweight births?"

Easy (2 minutes).

“What do you like about this site?”

- § Clear, not busy, very easy to navigate on the top page, but need to organize alphabetically. I like “workforce” more than “professionals.”

“What works best for you on this site?”

- § It's obvious where things belong.

“What would you change?”

- § Alphabetizing top page headings, unless you find there some that should be at the top. Broaden the content of journals represented – they don't represent epidemiology, policy and environmental health.

“How might we improve the site?”

- § Provide an information button by each category.
- § Order the top page alphabetically.
- § Include “edgy” organizations – less “establishment,” such as the Black Caucus of Health Care Workers within APHA and advocacy organizations like Families USA.
- § Broaden legislation links to include advocacy or policy issues.
- § Organize “health promotion and health education” page by topic or audience, not by organization. People won't look by organization.
- § The “health promotion and health education page” was more limited than I would've expected.
- § On the “health promotion and health education page” add a link to the American Association for Health Education.
- § Should link to voluntary organizations such as American Heart Association.
- § Could link to MEDLINEplus directories.
- § Add state-level grants and funding opportunities.
- § Repeat Friday Letter on grants and funding page – they might announce opportunities.
- § On “health promotion and health education” page, I would link to more HRSA and Public Health Foundation stuff because that's what people would expect.
- § Add to “jobs and careers” a link to a page maintained by Alyson Taub at NYU.
- § Link to more NGOs.
- § Link to more epidemiology and environmental health organizations.

Usability Test Participant 2

Gender:

Female

Age:

44

Occupation:

Health librarian

Time spent using web sites:

More than 10 hours a week

Highest educational degree:

Doctoral degree

Ever used Partners site? Yes

If yes, how often have you visited the site?

Just once

If yes, what was the purpose of your visit?

To preview it before coming on this visit.

If yes, what was your opinion of the site?

I was surprised that I had not been aware of it prior to this time. It appeared to contain a lot of helpful information.

What do you typically do with health-related information you might find on the web?

Some of the health related information I find on the Web I use for collection development purposes, to seek helpful resources to add to guides to information, or for my own education. I may also forward information to the departments or campus if I think the information may be helpful to them.

Category Rankings:

- 1 Literature and guidelines
- 2 News in public health
- 3 Health promotion and health education
- 4 Health data tools and statistics
- 5 Discussion and email lists
- 6 Education and training
- 7 Grants and funding
- 8 Legislation
- 9 Public health information outreach
- 10 Conferences and meetings

11 Jobs and careers
12 Finding people

Notable feedback about the categories:

- § Health promotion and health education. Not really clear. Maybe what's going on in terms of the community and maybe globally.
- § Health data tools and statistics. Expected to have links in categories like MEDLINEplus.
- § Legislation. Expected links to policy and advocacy groups, including local groups.
- § Public health information outreach. Expected these links to be about how to teach people at a local level to use resources from universities and organizations.
- § Jobs and careers. Expected these to be in categories of jobs.

Task 1: "Where will ASTHO holds its next annual meeting?"

Easy (1 minute).

Task 2: "Who is the president of Hawaii's public health association?"

Easy (1 minute).

Task 3: "Identify the CEPH-accredited school of public health in Louisiana."

Some difficulty (2 minutes). About ASPH's page with the list of schools of public health – "I would have to know the state these are in." About the map – "I would have to know where Louisiana is."

Task 4: "One of the Healthy People 2010 objectives is to increase the proportion of the population with health insurance. Can you identify journal articles that address this issue?"

Easy (2 minutes).

Task 5: "What proportion of births in the United States are low-birthweight births?"

Some difficulty (4 minutes). After she opened the "health data tools and statistics" page, "I'm looking for something related to birth." Expected to find statistics links arranged topically.

"What do you like about this site?"

- § Lots of white space, little distraction.

- § The categories seem distinct, discrete.
- § There aren't too many categories, so you can scan.
- § I like having search and sitemap at the top.

“What works best for you on this site?”

- § The categories are discrete and can be scanned quickly.
- § The menu on the left on the secondary pages is helpful.

“What would you change?”

- § I would fit the whole thing onto one screen [the top page], so we don't have to scroll.
- § Have the comments link be more prominent.

“How might we improve the site?”

- § Add annotations to the grants links.
- § Make links to Partners' sites be more prominent. The logos are nice as long as they don't crowd the page.
- § I'm surprised “news” is at the bottom. I expected news to be in a box on the site.
- § The categories that are in the middle would be more for people practicing in the field.
- § Could organize the site by anticipated audience – community members, students, professionals. But I don't know that this would be necessary for this site.

Usability Test Participant 3

Gender:

Female

Age:

59

Occupation:

Chief, county public health services

Time spent using web sites:

3-10 hours a week

Highest educational degree:

Master's degree

Ever used Partners site? No **If yes, how often have you visited the site?**

If yes, what was the purpose of your visit?

If yes, what was your opinion of the site?

What do you typically do with health-related information you might find on the web?

Send new links to my staff or central government (county attorney, fire/law enforcement), hospital partners.

Category Rankings:

- 1 News in public health
- 2 Education and training
- 3 Legislation
- 4 Public health information outreach
- 5 Health promotion and health education
- 6 Literature and guidelines
- 7 Health data tools and statistics
- 8 Grants and funding
- 9 Finding people
- 10 Conferences and meetings
- 11 Discussion and email lists
- 12 Jobs and careers

Notable feedback about categories:

- § Indicated that she could not discern the difference between “public health information outreach” and “health promotion and health education.”
- § Legislation. Expected this to be on topics such as the homeland security bill. Reported that it’s hard for local officials to access legislation.

Task 1: "Where will ASTHO holds its next annual meeting?"

Easy (less than 1 minute)

Task 2: "Who is the president of Hawaii's public health association?"

Some difficulty (approximately 1 minute). When looking for president of Hawaii’s public health association, she didn’t see the link to state public health associations at first; went through APHA’s site.

Task 3: "Identify the CEPH-accredited school of public health in Louisiana."

Some difficulty (approximately 2 minutes). Didn’t notice list of schools of public health on the “education and training” page. Had difficulty with ASPH’s alphabetical listing of schools; didn’t use the map feature on ASPH.

Task 4: "One of the Healthy People 2010 objectives is to increase the proportion of the population with health insurance. Can you identify journal articles that address this issue?"

Challenging (6 minutes). Didn’t notice ad for HP2010 Information Access. Went to “literature and guidelines” and MEDLINEplus. Eventually went to HP2010 Information Access, but clicked on “1-1” instead of the “Run Search” button.

Task 5: Challenging (8 minutes). Tried NCHS, NEDSS, NAHDO, NACCHO and HRSA. On the “health data tools and statistics” page, went to public health data sets subcategory first rather than statistics.

“What do you like about this site?”

- § Simple, clean. NCHS was way too busy.
- § The ads are kind of nice.
- § I like the colors – they’re easy on your eyes.
- § I can read it well without my reading glasses.

“What works best for you on this site?”

- § I like the logo – I’ll remember that.

“What would you change?”

- § I would clarify “education and training” – for the public health workforce.
- § Maybe increase the font size for the Partners links at the bottom or move them up to the top of the page.

“How might we improve the site?”

- § Add a “Return to Top” button.
- § Maybe link to the American Hospital Association.

Usability Test Participant 4

Gender:

Female

Age:

51

Occupation:

Health analyst/writer

Time spent using web sites:

More than 10 hours a week

Highest educational degree:

Master's

Ever used Partners site? No **If yes, how often have you visited the site?**

If yes, what was the purpose of your visit?

If yes, what was your opinion of the site?

What do you typically do with health-related information you might find on the web?

- A) Use in work-related products, such as proposals, presentations, and information products.
- B) Use for personal use

Category Rankings:

- 1 Literature and guidelines
- 2 News in public health
- 3 Health data tools and statistics
- 4 Health promotion and health education
- 5 Grants and funding
- 6 Finding people
- 7 Jobs and careers
- 8 Discussion and email lists
- 9 Public health information outreach
- 10 Education and training
- 11 Conferences and meetings
- 12 Legislation

Notable feedback about categories:

- § Questioned how to differentiate “health promotion and health education” from “education and training.”
- § Expected “public health information outreach” to be links for disseminating information or a bulletin board with announcements from an agency.

Task 1: "Where will ASTHO holds its next annual meeting?"

Easy (less than 1 minute). The listing is not alphabetical.

Task 2: "Who is the president of Hawaii's public health association?"

Easy (less than 1 minute). Went through APHA's site rather than the listing of state public health associations.

Task 3: "Identify the CEPH-accredited school of public health in Louisiana."

Some difficulty (2 minutes). Tried to find information under “resources” subcategory on “education and training” page.

Task 4: "One of the Healthy People 2010 objectives is to increase the proportion of the population with health insurance. Can you identify journal articles that address this issue?"

Some difficulty (2 minutes). Did not notice HP2010 Information Access ad; went directly to PubMed. Searched “increase health insurance” in PubMed; retrieved 2,365 records.

Task 5: "What proportion of births in the United States are low-birthweight births?"

Easy (2 minutes). “It’s nice to have the educational material about statistics with the links to statistics themselves.”

“What do you like about this site?”

- § All the public health information is there together. Related information is together – such as statistics links and a tutorial about statistics.
- § Easy to navigate.
- § Easy to read.
- § It’s trustworthy.

“What works best for you on this site?”

- § The information is all together – it’s comprehensive.
- § You can look for general or specific information.

“What would you change?”

- § Arrange conferences and meetings in alphabetical order or by date with events coming up sooner listed first.

“How might we improve the site?”

- § Get “Health on the Net” certificate.
- § Add more information.

Usability Test Participant 5

Gender:

Female

Age:

51

Occupation:

Organizer/event coordinator for maternal/child health department

Time spent using web sites:

1-3 hours a week

Highest educational degree:

Bachelor's

Ever used Partners site? Unsure

If yes, how often have you visited the site?

If yes, what was the purpose of your visit?

If yes, what was your opinion of the site?

What do you typically do with health-related information you might find on the web?

It depends on the purpose.

1. If for definition or clarification, might use it in developing a fact sheet or other similar tool.
2. If for personal health use, will seek various details and dimensions to better explain findings to friends or family.
3. If to assist children, will generally print out and share directly.

Category Rankings:

- 1 Health promotion and health education
- 2 Health data tools and statistics
- 3 Public health information outreach
- 4 Legislation
- 5 Education and training
- 6 Conferences and meetings
- 7 Jobs and careers
- 8 Grants and funding
- 9 Discussion and email lists
- 10 Literature and guidelines
- 11 Finding people
- 12 News in public health

Notable feedback about categories:

- § Health promotion and health education. Expected information to develop tools, for example information on specific federal health service programs – benefits available and criteria. Also expected basic information on specific conditions.
- § Public health information outreach. Expected to find agencies providing information on public health conditions, fact sheets, and where to go for follow-up information.
- § Conferences and meetings. Expected to be listed chronologically or by subject area; hoped it would annotated with information such as who would be attending.
- § Literature and guidelines. Expected links arranged by subject, providing literature for follow-up about specific issues. Also expected guidelines for preparing a manuscript for publication.

Task 1: "Where will ASTHO holds its next annual meeting?"

Easy (less than 1 minute).

Task 2: "Who is the president of Hawaii's public health association?"

Easy (less than 1 minute). Started with link to APHA at bottom of top page.

Task 3: "Identify the CEPH-accredited school of public health in Louisiana."

Some difficulty (5 minutes). Started with link to APHA at bottom of top page, then tried "education and training," but didn't notice the link to the list of schools of public health. Also tried "public health information outreach," "public health data tools and statistics" and "jobs and careers." She noted that if the search feature had been operational she would have searched "CEPH" or "schools of public health."

Task 4: "One of the Healthy People 2010 objectives is to increase the proportion of the population with health insurance. Can you identify journal articles that address this issue?"

Some difficulty (3 minutes). Started with the ad for Healthy People 2010 Information Access, but then went to "literature and guidelines." She may have been overwhelmed with the amount of text at the top page for HP2010IA. She considered searching the AJPH site, then went back to HP2010IA and searched successfully.

Task 5: "What proportion of births in the United States are low-birthweight births?"

Challenging (6 minutes). Looking at the “health data tools and statistics” page: “This is just telling me where to find them, not the data itself.” Tried HHS Gateway, searching “low-birthweight.” Gave up on HHS Gateway because of slow search retrieval. Tried FedStats and “public health information outreach.” Finally tried “health data tools and statistics” again and went to HRSA’s MCH site.

“What do you like about this site?”

- § There’s lots of cross-referencing.
- § There were always surprises because it’s a partnership.
- § Even the colors are soothing.
- § It provides the date of the last update.

“What works best for you on this site?”

- § The list of Partners was great – maybe move it up. Provide the full organization names spelled out, not just the abbreviations.

“What would you change?”

- § Maybe add a message about “If this is your first visit, read this...”

“How might we improve the site?”

- § Use pictures and icons whenever you can.
- § It will be helpful to have a glossary at some point. “Health promotion” – what does that mean?
- § Reciprocity is really important – make sure the Partners organizations link back to this site.

Usability Test Participant 6

Gender:

Female

Age:

55

Occupation:

Public health advocate also radio host/producer for health show

Time spent using web sites:

1-3 hours

Highest educational degree:

Master's

Ever used Partners site? No If yes, how often have you visited the site?

If yes, what was the purpose of your visit?

If yes, what was your opinion of the site?

What do you typically do with health-related information you might find on the web?

Many things.

1. Investigate information for my weekly radio show on health care (mostly via organizations or specific topics)
2. Search for information for my job at the DC Dept of Health
3. Personal interests

Category Rankings:

- 1 News in public health
- 2 Finding people
- 3 Health promotion and health education
- 4 Conferences and meetings
- 5 Grants and funding
- 6 Legislation
- 7 Public health information outreach
- 8 Discussion and email lists
- 9 Literature and guidelines
- 10 Education and training
- 11 Jobs and careers
- 12 Health data tools and statistics

Notable feedback about categories:

- § Health promotion and health education. Expected a lot of different things such as Healthy People 2010 information, guidelines, information about health disparities, journals, publications, programs and conferences about health promotion and education.
- § Grants and funding. Expected information about funding opportunities from foundations as well as government agencies.
- § Legislation. Expected to be able to enter a specific issue and be able to find legislative information about it.
- § Public health information outreach. Not sure what this means. “I do outreach and I do a lot of information sharing.”
- § Health data tools and statistics. “I rarely get into a lot of detailed statistics.”

Task 1: "Where will ASTHO holds its next annual meeting?"

Easy (less than 1 minute). The list of meetings needs to be alphabetical.

Task 2: "Who is the president of Hawaii's public health association?"

Easy (2 minutes). Considered going to APHA, but went to “finding people.”

Task 3: "Identify the CEPH-accredited school of public health in Louisiana."

Easy (1 minute). Followed “education and training” to the ASPH map.

Task 4: "One of the Healthy People 2010 objectives is to increase the proportion of the population with health insurance. Can you identify journal articles that address this issue?"

Challenging (7 minutes). Didn't think to go to “literature and guidelines.” Do we need to make it more obvious - “Looking for Journal Articles?” She first went to “news in public health.” She eventually went to the “literature and guidelines” page, but then went to AJPH and searched “uninsured.”

Task 5: "What proportion of births in the United States are low-birthweight births?"

Challenging (7 minutes). “I would try to go to a maternal and child health organization's web site first.” She went to “health data tools and statistics” page, but went to HRSA's Maternal and Child Health Bureau, and then searched the HRSA site for “stats on low-birthweight babies.” She found a link to a report with relevant information on HRSA's site.

“What do you like about this site?”

- § It’s a one-stop shop for public health issues. It brings different organizations together.
- § There’s almost an infinite amount of information you can find.

“What works best for you on this site?”

- § The categories made it easier.

“What would you change?”

- § [Referring to the title, logo and text under the logo] Make it bigger, maybe add a sentence explaining it more.
- § Add more about public health advocacy and more about non-profit organizations that deal with public health advocacy.
- § Provide issue-specific arrangement of organizations.

“How might we improve the site?”

- § Organize by topic – AIDS, racial disparities.
- § Implement the search feature.
- § There need to be links from the Partners organizations’ sites to this site.
- § It seems “governmenty.” Some sites are more enticing. Maybe add images of people – it would let people know you care about people.