Final Report Outline for NN/LM Pacific NW Region
Subcontracts and Outreach Awards

Please save as a Word document and submit as an email attachment to the appropriate NN/LM PNR staff contact.

COVER SHEET

Title of the Project:	Expanding Digital Library Services to Public Health Professionals in Western Washington
Name of Institution:	Public Health - Seattle & King County Digital Library
Project Leader's Name:	Ann Madhavan MLS, Public Health Librarian
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Time Period Covered:	January 1, 2007 – June 30, 2008
Date Submitted:	July 31, 2008

NARRATIVE DESCRIPTION

1. Executive Summary: Summarize the project's major accomplishments.

During the past 18 months, we have had the opportunity to provide outreach and services to a total of five public health jurisdictions in Western Washington: Clark County Public Health, Cowlitz County Public Health, Snohomish Health District, the Assessment Operations Group (AOG) at the Washington State Department of Health in Thurston County, and the Washington State Public Health Laboratory at Shoreline. Clark, Snohomish, and the AOG have participated in the subcontract since early 2007, while Cowlitz and Clark requested to join the program during its third quarter. It was our intention to extend public health information resources to underserved health professionals in Western Washington comparable to those available to Public Health-Seattle & King County (PHSKC). Those resources included:

- reviewed and annotated public health oriented websites
- links to open access and public library electronic journals
- links to institution owned electronic journal subscriptions
- access to reference and document delivery information services
- training in information access and knowledge management

Our goal was consistent with that of the PNR NN/LM: "to develop, implement, and evaluate a targeted outreach program to bring biomedical information resources within easy reach of health professionals who still do not have access." We envisioned three specific short-term outcomes and one long term outcome…

- Participating local health jurisdictions will have <u>access to information resources</u> tailored to their specific workforce's needs.
- Participating local health jurisdictions will have <u>access to fee-based Digital Library resources</u> similar to those currently available to the staff of Public Health–Seattle & King County.
- Participating local health jurisdictions will have <u>access to training</u> regarding how to find and access evidence-based public health information.
- And longer-term, local health jurisdiction staff will <u>improve the quality of their work, and the health of their communities,</u> by efficiently accessing and using state of the art information via the Digital Library.

Thanks to the generosity of the National Network of Libraries of Medicine (NN/LM) and the University of Washington Health Science Libraries, we have achieved our goals. During the duration of the subcontract we have added two additional partners, provided access to 358 full text articles, facilitated a dozen reference searches, conducted 16 training sessions, and contributed to public health providers understanding of and appreciation for information services.

Several useful lessons have also been learned. Public health professionals are a diverse group

and it is well known that their information needs are broad, but their access to funding for information resources is limited. This fact was illustrated again and again by the meager print resources and non-existent electronic resources held by local health jurisdictions, and the wide ranging topics of their information requests.

A second factor that appears to be consistent with other examples of information provision to public health professionals, including the project leader's experience with Public Health – Seattle and King County, is the impact of their workflow on information access. Although most individuals were eager to improve their knowledge and skills regarding efficient information access, in most cases, their erratic and inconsistent use of databases and other resources, based on the often unpredictable requirements of grants or projects, made it difficult to establish their comfort level and facility with these tools.

Despite their obvious need for access, one of the most challenging aspects of the project has been making sure that all prospective users within each facility were aware of the information resources available to them. The Assessment Operations Group was most successful in this regard and this may be attributable to two things: AOG has used information resources in the past (Washington State Library) and they had a "point person" onsite who helped to advocate and channel library requests.

Unfortunately, very few individuals responded to the subcontract exit survey, despite a two week window and a reminder to complete it. Of the approximately 450 potential candidates, only 39, or 8.4% completed the exit survey. While such a small number cannot be considered statistically representative, it is still worthwhile examining the results for their consistency and comparability to other similar surveys. Overall, the individuals who commented on the project were very pleased with the service and strongly recommend that it continue. Fortunately, it shall—at least until the remaining funds deposited in the University of Washington's Health Sciences Libraries Document Delivery Service are spent down. And for those lucky individuals who are covered by the HEAL—WA Program (http://plonedev.hsl.washington.edu/HealWA), increased access to information resources will continue. Unfortunately, HEAL will not support a large proportion of public health staff including epidemiologists and public health educators. It is hoped that their experience with this subcontract will afford them an opportunity to other pathways to information.

2. Geographic region/number of counties: List the geographic regions or all the counties that were impacted by the project.

- Clark County
- Cowlitz County
- King County (Washington State Public Health Laboratory at Shoreline)
- Snohomish County
- Thurston County (Department of Health Assessment Operations Group)

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

During the past 18 months, the following organizations have been involved in this partnership:

- Clark County Public Health Department, 1601 East Fourth Plain Boulevard, Vancouver, WA 98661
- Cowlitz County Public Health Department, 1952 9th Avenue, Longview, WA 98632
- Snohomish Health District, 3020 Rucker Ave, Everett, WA 98201
- Department of Health Assessment Operations Group, 101 Israel Road SE Tumwater, Washington 98501
- Washington State Public Health Laboratory at Shoreline, 1610 NE 150th Street Shoreline, WA 98155-9701
- Public Health – Seattle & King County

The University of Washington Health Sciences Libraries and specifically Document Delivery Services has also made this collaboration possible.

4. Training: *NOTE: If you haven't already done so, please complete a record of Training/Demonstration Sessions using the form at http://nnlm.gov/evaluation/datacollection/ActivityInfo.pdf and fax to your PNR staff contact at (206)543-2469. In this final report, provide a summary of the training events and participants:

Total # of sessions for the Project: __16__
Total # of sessions in which half or more of participants were from minority populations: __0___
Total # of participants for the Project: __139*.

Breakdown of the count of participants by:

Health care or service provider, with a subtotal for public health personnel   __139_
Health sciences library staff member   __0___
Public/other library staff member   __0___
Member of the general public   __0___

*An additional training session is scheduled for Cowlitz County Public Health in August 2008 and it is anticipated that an additional 30 participants will attend this two hour session.

5. Training sites: Provide a brief description of training sites.

Training was provided at each of the sites listed above, excluding Cowlitz County Public Health. Cowlitz County joined the partnership late, and unfortunately, a suitable time for training was not available until after the conclusion of the subcontract. I have scheduled a

training session for Cowlitz County staff on August 14th, 2008. They have specifically asked for the session to cover the following: how to initiate a search for evidence on a topic**;** how to identify best resources (good science, most up-to-date, topically appropriate, etc); how to obtain those resources; suggested PH resources for a "Cowlitz Library"; getting regular updates on a topic - using My NCBI on Pubmed or other means; and, how to get help when you need it. Their requests are quite representative of other local health jurisdictions.

At all of the training sessions, participants had access to the Internet via personal laptops, their desktop computers, or via the presentation link up. This was critical to the success of the trainings.

6. Exhibits: List all the exhibits connected with the projects (if applicable). Include the meeting name, dates, location, estimated number of contacts made, demonstrations given and general impressions of success. *NOTE: If you haven't already done so for all exhibits, please complete an exhibit report found at http://nnlm.gov/pnr/funding/ExhibitReportOutline09-12-02.doc and submit with this report.

    Exhibits were not a part of this project; however, Microsoft Power Point presentations were given at each facility and have been submitted with quarterly reports throughout the subcontract period.

7. Resource materials: Provide a brief description of any materials that were developed for training or for promotion/marketing (include newspaper announcements, brochures, etc.). Include copies of materials developed. If web-based resources were developed, please provide the URL for the site where the materials are located. URLs for all web-based training materials should also be sent the National Training Center and Clearinghouse (NTCC) for inclusion in the Educational Clearinghouse (http://nnlm.gov/train/). Provide verification that this has been done or provide a date by which it is expected that URLs of web-based training materials will be sent to the NTCC's Educational Clearinghouse.

    Power Point presentations were created for each facility and as such are appropriate to their specific requirements. The presentations typically included the following: an introduction to the Digital Library website and the free resources available there; information regarding how to access local online full text articles available via all public libraries in Washington State, including ProQuest; guidelines for contacting the Digital Librarian/project leader for help in obtaining full text articles or for reference assistance; and, additional search tips and tricks (for example, PubMed Single Citation Search, PubMed Quick Tours, Google Advanced Search, Google Scholar, Google Domain Search).

    AOG, Clark, and Snohomish were provided with an Excel file of their print resources, provided following an audit of their onsite collections conducted by the project director. All partners were strongly encouraged to utilize the Digital Library website originally developed for Public Health – Seattle & King County, but modified to include links relevant to the subcontract partners.

In addition, all training participants were provided with a large selection of NN/LM handouts, including bookmarks, guidelines for PubMed, MedlinePlus, Toxnet, and other relevant material.

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

    All partners were encouraged to use the already existing Public Health Digital Library website at http://www.metrokc.gov/health/library/, which has been modified to incorporate links specific to each local health jurisdiction. The links to ProQuest (http://www.metrokc.gov/health/library/fulltext.htm) and other public library online resources (http://www.metrokc.gov/health/library/public-libraries.htm) will continue to be updated as part of the ongoing maintenance of the Digital Library website.

    I met with limited success with respect to encouraging the partners to develop distinct library resource pages on their intranets. Not unlike Public Health-Seattle & King County, most local health jurisdictions only allow access to their intranets onsite and only by employees. In smaller facilities, both intranet space and programming time may be quite limited. PHSKC, the largest city-county health department in Washington State, has only one webmaster, and smaller public health department IT staff are often forced to perform several roles besides intranet maintenance. While all partners were willing to post PPT presentations on their intranets, or email them to their staff, it was difficult for the project leader to verify this had occurred. There was also no guarantee that employees were aware of this intranet-based resource, or that they opened the email containing the attachment, saved it, and remembered to refer to it.

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

    A primary activity of the subcontract was the provision of document delivery services.   Below are the statistics for each of the five partners. *Access* refers to any question related to gaining access to a known resource. *Article* refers to the act of locating and ordering a full text article or book chapter, usually delivered in PDF. *Reference* refers to assistance provided with a literature search on a particular topic. *Book* refers to the borrowing of a book using a University of Washington proxy library card.

    Full text article requests were satisfied in the following ways:

    - via the requestor's own onsite collection, to which they were redirected, by a link to or pdf of a free/open access article,
    - by redirection to local public library ProQuest holdings, or
    - by the University of Washington's Libraries holdings.

In several cases, the requested article was not held by UW or could not be shared due to license agreements. In such cases, the requestor was encouraged to explore other local libraries (provided via

WorldCat), contact the publisher or author, or consider alternative, more accessible resources. Interlibrary loan was not an option, as the cost of full text often exceeded $50 per article and funding did not support this level of assistance.

Surprisingly, few individuals made use of reference assistance, despite significant encouragement to do so. Access to books was offered quite late in the project and only the individual who initially requested this service made use of it.

Location	AOG	Clark	Cowlitz	PH Labs	Snohomish
Access	1	1	0	1	3
Article	226	38	6	26	62
Own Print Collection	7	0	0	0	2
Open Access	62	9	1	1	6
ProQuest	12	2	0	0	3
Loansome Doc	89	17	5	15	37
UW Cannot Share*	56	10	0	10	9
UW Affiliate	0	0	0	0	2
Reference	3	4	1	1	3
Book	0	0	0	1	0

*UW's license with the publisher does not allow them to share document access with non-affiliates or they do not hold the journal.

Below are the five most commonly requested journal titles by each partner. Cowlitz's lower number of requests excluded the possibility of ranking titles in this manner. The variation in titles and the fact that none are duplicated is further testament to the fact that public health's information needs are broad and difficult to categorize. It was for this reason that rather than purchase specific print or electronic titles for each partner, funding was used to provide access to document delivery services. This finding is consistent with the full text article requests at Public Health – Seattle & King County. And, both PHSKC and the outreach partners demonstrate a strong desire to obtain specific citations on their topics or interest rather than a "comparable" article or evidence-based review.

AOG	Clark	Cowlitz	PH Labs	Snohomish
JAMA	Pediatric exercise science		Clinical infectious diseases	American journal of health promotion
American journal of infection control	Lancet		Clinical microbiology and infection	Pediatric infectious disease

			American journal of medical genetics. Part C, Seminars in medical genetics	
Plastic and reconstructive surgery	The Journal of school nursing			Addictive behaviors
Maternal and child health journal	Infection control and hospital epidemiology		Human mutation	Journal of nutrition education and behavior
American journal of respiratory and critical care medicine	Public health nursing			Pediatrics

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

All meetings and training sessions were scheduled with primary contacts at each facility via email and/or telephone, and this proved to be quite satisfactory. As mentioned above, the degree of promotion the information services were afforded at each facility was quite variable. This was often related to the role of the "point person" in each setting, the priority they could give to the project, and the degree of communication they had with staff. Despite management's enthusiasm for the information access the outreach services offered, they had many other priorities besides reminding their staff to make use of this access. Unfortunately, we were not able to send regular group marketing emails directly to staff at each setting, and this is again consistent with our experiences at Public Health – Seattle & King County. Most facilities carefully guard email access to avoid inbox overload. In the future, it may be useful to further examine this issue with respect to marketing information services, as a large proportion of those who completed the exit survey stated that they prefer email as the basis for informing them of such resources.

Despite the above marketing restrictions, the project leader always took the opportunity to distribute Digital Library bookmarks, PowerPoint presentation handouts, and NN/LM promotional material during every contact, with the hope that this material would circulate throughout the partners' setting. And, of course, success is the best advertisement. The project leader also encouraged "happy customers" to share their enthusiasm with Digital Library services with their colleagues.

As the project leader was the only individual involved in contacting and interacting with partners, additional personnel staffing was not an issue. Web site development was primarily the responsibility of the PHSKC webmaster, who enthusiastically complied with any content requirements the project leader proposed.

11. Evaluation: How was the project evaluated? What results were achieved based on the objectives of the project?

The following tools were used to evaluate the project:

- Microsoft Access database of all article, reference, and access requests.
- Post-training session evaluations.
- Subcontract exit survey

The Access database was a very useful way for the project leader to track type of request, requestor location and job title/role, and citation data. The only instance when data was sometimes limited, was when a "point person" at one of the partner facilities requested material on others behalf. In such a case, it was not always clear what the job title/role of the original requestor(s) was. It was also impossible to determine how many article needs were either successfully met due to a requestors new skills in acquiring online information, or how often the "point person" successfully redirected requestors to material and thus did not contact the librarian. The quality of emails from several frequent requestors and "point persons" actually changed over the course of the project from "can you help me find these" to "I have found all but these…on my own."

Post-training session evaluations were submitted with each quarterly report and were a useful way of determining how successfully the intervention met its goals, and how to modify future training sessions. Unfortunately, they were not a useful tool for measuring the longer term retention of the material discussed.

The exit survey can be viewed at http://www.surveymonkey.com/sr.aspx?sm=HiJapkNRUIgWs2YMo0qpfwhwY7_2fDvmOkdchMq2iNA6o_3d . Although response rate was low, as mentioned elsewhere in this report, the consistently positive nature of respondents' comments should be seen as indicative of the project's value and impact.

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

Of the barriers encountered, the foremost was the struggle to "get the word" out, to market information services and broaden awareness of available resources throughout each facility. Related to this problem was limited access to regular group emailing and a lack of access to each facility's intranet. At PHSKC, access to library training resources, IP-based institutional subscription access, and contact information about the digital library is familiar to most staff. This awareness has been further heightened by the librarian's participation in twice monthly orientation sessions for clinic staff. Because the project leader was only onsite at the partner facilities on a limited basis, and because she had limited ability to influence intranet content,

marketing of the project suffered. As the distance between the information specialist and LHJ, or ratio of information specialist to LHJ, is not like to change significantly in the future, a more effective way to raise awareness of how to access these services must be found.

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?

As subcontract funds remain in the UW Health Sciences Libraries Document Delivery Services deposit account at the conclusion of the subcontract, the project leader will continue to provide document delivery assistance to the partners until all money is spent down. She will volunteer her time in this respect. The partners were informed of this as part of the subcontract exit survey and are very enthusiastic about the extension of these services. We would like to thank the University of Washington Health Sciences Libraries for agreeing to this continuation proposal.

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.

The overall impact of this outreach project has been very positive. Over the course of 18 months, access has been provided to 358 full text articles and counting, several reference searches have been facilitated, 16 training sessions have been given, and public health professionals in five counties in Western Washington are better equipped to access evidence-based public health information. Based on the limited responses to the exit survey (http://www.surveymonkey.com/sr.aspx?sm=HiJapkNRUIgWs2YMo0qpfwhwY7_2fDvmOkdchMq2iNA6o_3d), on feedback from NN/LM staff who attended the Washington State Public Health Association's Annual Joint Conference on Health in October 2007, and on the individual comments of all the individuals who have requested assistance, the partners are satisfied with the outcome of the project. In addition to continuing to document the information seeking behavior of public health professionals, the subcontract has further elucidated the information needs of both the smaller health jurisdictions, and the information needs of epidemiologists within the Washington State Department of Health. It is hoped that the positive experience that the partners had with Digital Library services will lead them to consult with the project leader in the future, and to seek out and develop relationships with other librarians, both academic and public, within their communities. It would also be tremendously gratifying if the success of this project ultimately led to finding solutions to or funding for ongoing information services for the many public health professionals who will not be included in the HEAL-WA project.

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

The following recommendations are offered to anyone planning to pursue a similar project…
Ensure that you have a concrete commitment from your partners to market the service within their facility, including specific tools for doing so. Such tools might include access to group

emailing within the department, an intranet template for sharing library information, or a "point person," ideally within the agency, who is committed to the goals of the project. Provide your "point person" with training in their role as local information gatekeeper, and agree on a format for tracking requests within their facility. The "point person" role is a challenging one because without buy in and support from the facility's administration, this individual will not receive the authorization, encouragement, and time to perform this role.

FOLLOW-UP QUESTIONS

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

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

   The overall goals and objectives were met. Because significant data on the information needs of public health professionals unaffiliated with academic facilities is still limited, there is a lack of available statistics against which to measure the success of this program. Based on a confidential report from the Assessment Operations Group, the project leader's experience at PHSKC, and responses from the exit survey, a very large proportion of public health professionals without access to fee-based, full text articles either depend on the generosity of colleagues with access or simply do without. While the State of Washington is making progress in this regard with the initiation of the HEAL-WA project, most public health epidemiologists and health educators will continue to struggle for access once subcontract funds run out. While the goals and objective of this specific project were met, the larger problem of lack of access for most public health professionals continues.

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?

   In addition to the lessons previously mentioned regarding "buy in" and marketing, the project leader would strongly suggest that staff participating in the financial aspects of the subcontract receive input regarding the goals of the project, desired budgeting outcomes, and that they also commit to those objectives.

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

   The only objective that the project leader has yet to realize is to develop additional training

	modules using Captivate for Windows, software purchased using a small proportion of the subcontract funds. While this software appears to be a good tool for developing training modules, it is time intensive, and based on the frequency of changes to search interfaces such as PubMed, the commitment to keeping the modules current is substantive. Before committing further time to such a project, which I hope to offer publicly via the Digital Library, I plan to explore and more prominently post currently existing PubMed, ProQuest, and other library oriented training resources on the Digital Library website.
4.	What advice or recommendations would you give to anyone considering a similar outreach effort? I would like to offer my experience and expertise primarily to the upcoming HEAL—WA, which will commence in January 2009. I am curious to see how they market the project and to what degree public health professionals use their services. Ultimately, for information seekers to use such a service, they need to know it exists. As health professionals will be asked to pay for access via their annual licensing fee, it will be interesting to see if this translates into higher participation levels.
5.	Please describe plans for disseminating lessons learned and other information about the project, such as through a conference presentation or publication. As part of the subcontract requirements, I plan to submit an article about this project to the NNLM/PNR Dragonfly. I hope to incorporate the above data into a paper or conference presentation about the provision of information services to public health professionals, but do not have specific plans at this writing.