

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

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| Title of the Project: | Building Capacity for Quality Nutrition Information in Seattle Public Schools |
| Name of Institution: | Center for Public Health Nutrition University of Washington |
| Project Leader's Name: | Barbara Bruemmer, PhD, RD |
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| Time Period Covered: | January 8, 2007 to March 31, 2008 |
| Date Submitted: | March 31, 2008 |

NARRATIVE DESCRIPTION

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

Schools play an important role in promoting awareness about the link between nutrition, lifelong health, and student learning, This requires key school staff to have information about and access to high quality and accurate information. This project targeted school professionals, including nurses, librarians, health educators and dietitians on the use of MedlinePlus, as a quality resource for nutrition information on the internet. The components of the project included, baseline formative surveys, a demonstration presentation, three hands-on computer workshops, follow-up surveys and the development of an independent toolkit with a tutorial to reside on the Seattle Public School website. Surveys were conducted at all of the presentations to determine participants' knowledge of MedlinePlus, participants' potential use of MedlinePlus and participants' opinions of the presentations.

The toolkit was designed as an online tutorial for MedlinePlus targeting nutrition and emphasizing quality health information. Information collected via surveys taken at the workshops guided the development of the website so that it is tailored to the needs of public school professionals. Seattle Public School staff, parents and teachers will have access to the toolkit via the Seattle Public Schools website.

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

Attendees of the workshops were employees of Seattle Public Schools (SPS). This school district has 97 schools that serve 45,800 students in King County, WA.

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

The central partnerships for this project were with three leads of the departments of the target personnel in the Seattle Public Schools:

- Cathy McLeod, SPS, Supervisor, Library Media Services
- Jill Lewis, RN, MN, SPS, Supervisor, Health Services
- Pamela Hillard, SPS, Health Education Program Manager
- Anita Finch, MS, RD, SPS, Director of Nutrition Services
- Roxanne Trees, SPS, Health and Human Services
- Wendy Wyer, RD, SPS, Nutrition Services' Dietitian

Partnerships formed outside of SPS included:

- Kristen Frantsen, MPH, Schools Coordinator, STEPs to Health King County
- Laura Streichert, PhD, MPH, Associate Director, UW Center for Obesity Research

Jill Lewis, Cathy McLeod and Wendy Wyer were the primary contacts for coordinating the workshops with each of our target groups. They were mainly responsible for recruiting SPS professionals to participant in the workshops. The greatest challenge encountered among our partnerships was scheduling issues to maximize involvement of the target audience. The Department of Food Service and Nutrition joined our project in early Summer. Their participation was an excellent addition and complemented other participants.

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:

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| Total # of sessions for the Project: | 4 |
| Total # of sessions in which half or more of participants were from minority populations: | 5% |
| Total # of participants for the Project: | 84 |

Breakdown of the count of participants by:

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| Health care or service provider, with a subtotal for public health personnel | 61 |
| Health sciences library staff member | |
| Public/other library staff member | 18 |
| Member of the general public | 5 |

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

Our workshops took place in the computer lab in the John Stanford Center for Educational Excellence in Seattle WA. The Stanford Center is the location of the central offices of SPS and houses several conference rooms and offices of department heads. Our target groups each held regular department meetings at the Stanford Center, and our workshops were incorporated into these meetings so that the location and timing of our workshops would be convenient for participants. The Stanford Center also had available several computers which were necessary for our hands-on demonstration of MedlinePlus.

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.

A preliminary demonstration of MedlinePlus was conducted on August 29, 2007 in a

conference room at the Stanford center. Fifty-five school district nurses were in attendance. The demonstration consisted of a PowerPoint presentation and explanation of the features of MedlinePlus and a mock search using the MedlinePlus website. Three surveys were performed at the session pertaining to the participants' knowledge of MedlinePlus, participants' needs for finding health information on the internet and participants' opinions of the workshop. Results from those surveys were used as a guide for the development the subsequent hands-on workshops.

The three hands-on workshops were conducted in the fall and winter of 2007: the nurses' workshop took place on December 18, 2007, the librarians' workshop took place on December 4, 2007, and the health educators'/nutritionists' workshop took place on November 29, 2007. The workshops consisted of an explanation of the features of MedlinePlus as a health information resource, and a step-by-step hands-on demonstration of performing a search on MedlinePlus. The audience practiced locating specific nutrition information through multiple avenues on MedlinePlus (i.e., using the built-in search engine and a key word, or using a directory). Questions on the pre- and post- surveys pertained to the participant's knowledge of MedlinePlus as a health information resource, their likelihood of using MedlinePlus, and the usefulness of the workshop. Participants were asked to provide an email address for a follow-up survey. Twenty-six participants returned both the pre- and post-workshop surveys.

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://nml.gov/train/>). Provide verification that this has been done or provide a date by which it is expected that URLs of web-based training materials will be sent to the NTCC's Educational Clearinghouse.

A flyer describing MedlinePlus as a quality nutrition resource was developed and distributed to all attendees of the preliminary demonstration session in August and the fall hands-on workshops. A link to MedlinePlus was added to the SPS Library Services webpage for easy access (<http://www.seattleschools.org/area/library/stuindex.xml>).

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

The "Discover Nutrition" web-based tutorial provides an overview of MedlinePlus, links to MedlinePlus tours and tutorials, a description of special features such as age specific information, and language options and the tutorial specific for nutrition questions. Three examples are provided in the "Discover Nutrition" tutorial focused on "Get Information", "Find Solutions" and "Check the Evidence". This toolkit with the tutorial was designed for integration into the Seattle Public Schools web site both for the library and the food service

sites. Directors of both programs had expressed an interest and indicated that their audience would be well served by having the link on each department web page. Therefore the toolkit/tutorial has been sent to each of these Directors. The Dr. Bruemmer will work with the web master of the SPS to assure that the web pages are functional and uploaded in a timely manner. Access the draft version at:
“http://courses.washington.edu/nutrmgmt/DiscoverNutr_NL.htm”

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

Not applicable.

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 four presentations were scheduled for the convenience of each target audience by the department leads (Jill Lewis, Cathy McLeod and Wendy Wyer). The preliminary demonstration presentation was scheduled into the staff orientation prior to the beginning of the school year, while the hands-on workshops were incorporated into regularly scheduled departmental meetings during the school year. Necessary presentation content was identified by an assessment tool administered to potential participants within the target audiences at their departmental meetings in Spring 2007.

Encouragement to attend by the departmental leads was the primary method of recruitment to the demonstration presentation and workshops. A flyer promoting MedlinePlus as a resource for quality nutrition information on the internet was developed and distributed to all attendees. Finally, a link to MedlinePlus was placed on the SPS Library Services website.

The preliminary version of the website was designed by the UW Management In Nutrition Services class of graduate students as described in the grant proposal. The content was based on the needs of the target audience as identified by the assessment tool collected in Spring 2007. The finalized version of the website was completed by Dr. Bruemmer, and will be implemented as a component of the SPS website by the SPS webmaster.

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

The pre- and post-workshop surveys included questions asking participants to indicate their level of satisfaction with the workshop content. Participants indicated they were somewhat satisfied or very satisfied with the information presented in the workshops. Overall 23 of 26 participants reported that the workshop was useful. In the post survey responses, nine of twelve questions met the target of 80% correct answers. The full description of the surveys related to the short term objectives are in Appendix A.

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.

Several problems contributed to the 'lessons learned' of this project. Clearly we were dealing with very busy professionals both those in administration assisting with the delivery of grant elements but also with our participants. However, at all times our partners maintained the value of the project and were dealing with the natural competing time elements of their positions. For each of these barriers our partners were able to assist in problems solving. The final consequences were workshops scheduled later in the year than initially anticipated.

We were very fortunate in that we did not encounter problems with the development of the web site materials. At this time we are not anticipating problems with the live launch of the toolkit/tutorial.

Of note, many of the participants in the workshops were teaching in elementary schools. The leads from the school district had anticipated that we would have more participation from staff in middle schools and high schools. This may have contributed to the level of use and satisfaction in the follow-up survey.

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?

The toolkit/tutorial, "Discover Nutrition" represents our efforts to sustain the training and provide a continued presence on the SPS web site specific to nutrition. Unfortunately with the end of the grant, the investigators will not be able to maintain the site but it was designed to represent the consistency in MedlinePlus and thus should be functional well past the end of the grant.

In addition to the current grant, the Center for Public Health Nutrition has submitted an application for a 2008 Express Grant to extend this project in the "Building Capacity for Quality Health Information in School Communities" using the *Healthy Schools, Successful Students* website. This project would extend the "Discover Nutrition" approach to the Coordinated School Health model from the Centers for Disease Control and Prevention.

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 workshops promoted the partnership between the NNLM/NWR and the SPS through the Center for Public Health Nutrition. This acknowledgement is also incorporated into the toolkit/tutorial. Other communication with the leads in the SPS has included comments on the value of this grant given limited school funding.

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

An extended period for the grant would be useful due to the school calendar. Where the schools are not in session for three months the project would have benefited from an extended period to reach staff during their monthly meetings.

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?

Item # 11 above. We did encounter fewer responses to the follow-up survey than anticipated. This limited our ability to evaluate use of MedlinePlus within one month of the workshops.

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?

The school schedule did impact the flow of work on the grant. We recommend planning periods and work timelines that allow flexibility particularly where delays may mean that work will be on hold when school is out of session.

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

Revise the timeline to assure that all planning is completed early in the spring and to assure that schedules of the workshop are on the early fall calendars.

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

It was a pleasure to deliver the workshops to the participants. MedlinePlus generates a great deal of enthusiasm. Since the tool meets such a need we found that there was a high level of energy and involvement during the sessions. If anything it was hard to keep them on track for specific examples since they often strayed during the workshop to explore other health issues for their students.

5. Please describe plans for disseminating lessons learned and other information about the project, such as through a conference presentation or publication. In accordance with the NIH Public Access Policy (<http://publicaccess.nih.gov>), project directors are asked to submit voluntarily to the NIH manuscript submission (NIHMS) system (<http://www.nihms.nih.gov>) at PubMed Central (PMC) final manuscripts upon acceptance for publication.

We plan to develop a manuscript to describe the program. The manuscript and a poster will be prepared for the American Dietetic Association Food and Nutrition Conference and Exposition in 2009.

Building Capacity for Quality Nutrition Information in Seattle Public Schools

Appendix A: Data from the workshops related to the short-term objectives.

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| The short term <u>participant</u> outcomes are: | | |
| | Method of evaluation/ Survey question | Favorable response |
| Workshop participants will demonstrate competency and capability in identifying quality nutrition information on the internet. | Post survey <ul style="list-style-type: none"> • Info provided on MedlinePlus meets quality, authority, and accuracy requirements • Information can be located in a timely manner • Information available in Spanish • Information available by age level • Information updated daily • News items available • Research articles available • Links to professional association web sites • Links to medical encyclopedia articles • Links to screening tools • Links to brochures and handouts. • Links to medication and drug information | 88% 88% 88% 85% 65% 90% 96% 81% 88% 69% 69% 85% |
| | Summary: 9 of 12 questions met the 80% target correct response rate. | |
| Workshop participants will report increased dissemination of quality nutrition information from MedlinePlus to school staff and students. | Post Survey: <ul style="list-style-type: none"> • How likely are you to use MedlinePlus for your personal use? • How likely are you to disseminate MedlinePlus to students? • How likely are you to disseminate MedlinePlus to teachers? • How likely are you to disseminate MedlinePlus to parents? | <ul style="list-style-type: none"> • 52% very likely • 22% likely • 35% very likely • 26% likely • 35% very likely • 39% likely • 35% very likely • 35% likely |
| The short term <u>community</u> (school district) outcomes are: | | |

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| Increase frequency of use of NLM resources on nutrition. | This information has been difficult to assess. Low response to the follow-up survey has limited our ability to track reported use. We will explore with the SPS webmaster tracking methods to tally 'hits' to the "Discover Nutrition" tutorial. | See comments below. |
| Increase capacity of schools to access quality nutrition information. | The "Discover Nutrition" toolkit/tutorial will be available on two web sites in the Seattle Public Schools (Library Services and the Food Service Department). We will encourage staff to promote awareness of this tool. It is designed to both convey information and build skills in access quality nutrition information through MedlinePlus. | |
| Increase capability of school staff to identify and access quality nutrition information. | | |

Additional information pertaining to the program evaluation:

A follow-up survey was administered to participants via an online survey tool approximately eight weeks after the workshop. Eleven participants responded to the follow-up survey, two of whom were nurses, six were librarians, one was a health educator and one was a nutritionist. Four participants work primarily in elementary schools, three work primarily in middle schools, one works primarily in high schools, and two work in multiple school levels. Only four participants responded positively to having used MedlinePlus as a source of nutrition information since the workshop. Of these four, two indicated that they used MedlinePlus for nutrition information one to two times per month, and two indicated that they used MedlinePlus less than one time per month. When asked to rate their satisfaction with navigation of the MedlinePlus site, three were very satisfied, and one was somewhat satisfied. All four participants reported that MedlinePlus saved them time in finding nutrition information. When asked about their satisfaction with the information found, two participants said they were very satisfied and two participants said they were somewhat satisfied with the nutrition

information they found on MedlinePlus.

The types of information most often accessed on MedlinePlus were nutrition overviews, research articles, age appropriate information and medical encyclopedia articles. Prevention information, news items, professional organization websites and links to brochures and handouts were also accessed by participants. Three participants reported that they accessed this information for personal learning, three indicated it was for personal use and dissemination to others, and two indicated that they trained others to access MedlinePlus. The information was most often disseminated to students, teachers and parents. Among those who trained others to access MedlinePlus, they indicated that they trained students and parents.

When asked what barriers were encountered in using MedlinePlus for nutrition information, participants responded that inability to locate the information needed and information that was too technical were the main barriers.

Six of the eleven total participants reported that they had recommended MedlinePlus to others as a source of quality nutrition information, while four reported they had not, and one declined response. When asked to rate their satisfaction with the information presented in the workshop, five indicated they were very satisfied, three indicated they were somewhat satisfied, two responded that they were neutral and one person chose not to respond.

Three participants provided comments or recommendations at the end of the survey:

“I have been using MedlinePlus more this year in both science and health classes. It’s helpful having it on the SPS Online Resources page, and is a good expert source to direct students to.”

“What about placing the MedlinePlus website on the front page of Inside Seattle Schools under Logins? It is a good idea to have what is there now which is an Online Library Database. One could add a line and use (for example) the term Online Medical/Nutrition Database which would be MedlinePlus.”

“I have received good feedback from parents/adults when I suggested that they check there for information. Nutrition just hasn’t come up as a topic.”