

A. OVERALL COVER PAGE

Project Title: National Network of Libraries of Medicine New England (Region 8) and Public Health Coordination Office	
Grant Number: 5UG4LM012347-02	Project/Grant Period: 05/01/2016 - 04/30/2021
Reporting Period: 05/01/2016 - 04/30/2017	Requested Budget Period: 05/01/2017 - 04/30/2018
Report Term Frequency: Annual	Date Submitted:
Program Director/Principal Investigator Information: MARY ELIZABETH PIORUN , BA MBA MLS PHD Phone number: 508-856-2206 Email: mary.piorun@umassmed.edu	Recipient Organization: UNIV OF MASSACHUSETTS MED SCH WORCESTER 55 LAKE AVENUE NORTH WORCESTER, MA 016550002 DUNS: 603847393 EIN: 1043167352A1 RECIPIENT ID:
Change of Contact PD/PI: N/A	
Administrative Official: DIEGO R VAZQUEZ Research Funding Services 55 Lake Avenue North Worcester, MA 016550002 Phone number: 508-856-5600 Email: diego.vazquez@umassmed.edu	Signing Official: TAMELA LEBLANC 55 Lake Avenue North Worcester, MA 01655 Phone number: 508-856-6481 Email: Tammy.LeBlanc@umassmed.edu
Human Subjects: No	Vertebrate Animals: No
hESC: No	Inventions/Patents: No

B. OVERALL ACCOMPLISHMENTS

B.1 WHAT ARE THE MAJOR GOALS OF THE PROJECT?

- 1.NNLM NER will form a diverse and inclusive network encompassing the six New England states.
- 2.NNLM NER will actively engage Network Members in the work of NER.
- 3.NNLM NER will foster communication, coordination, and collaboration among Network Members and the populations they serve.
- 4.NNLM NER will measure success pertaining to impact and quality through evaluation metrics and tools developed by the National Evaluation Office.

B.1.a Have the major goals changed since the initial competing award or previous report?

No

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?

File uploaded: Accomplishments.pdf

B.3 COMPETITIVE REVISIONS/ADMINISTRATIVE SUPPLEMENTS

For this reporting period, is there one or more Revision/Supplement associated with this award for which reporting is required?

No

B.4 WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?

NOTHING TO REPORT

B.5 HOW HAVE THE RESULTS BEEN DISSEMINATED TO COMMUNITIES OF INTEREST?

NOTHING TO REPORT

B.6 WHAT DO YOU PLAN TO DO DURING THE NEXT REPORTING PERIOD TO ACCOMPLISH THE GOALS?

- Promote National Library of Medicine resources through the region and in collaboration with our national partners
- Community of Interest: provide a structure in which members take ownership of educational programming that will provide new skills in order to succeed in an ever changing environment. The three COI's for Year 2 are patient engagement, instructional design, and emerging roles.
 - Education: Ensure coordinators have an up to date and comprehensive knowledge of the National Library of Medicine databases and resources and are able to effectively communicate and train members about National Library of Medicine databases, resources, and information literacy.
 - Data Programming: Offer member driven programming to address the emerging need around data management, data curation, and data literacy -- locally and nationally.
 - Focused Outreach: Continue refinement of focused outreach model, addressing local health needs in areas that are undeserved.
 - Funding: Collaborate and engage members in outreach and education activities in their local communities, forming new and long lasting partnerships.
 - Exhibiting: Promote the National Library of Medicine products and services to specific groups and topic areas (such as medical interpreters or science teachers), while also providing opportunities to create collaborations and grow membership.
 - Public Health Digital Library: Continue to recruit participants in the PHDL and make connections with partner libraries nationwide.

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?*1. NNLM NER will form a diverse and inclusive network encompassing the six New England states.*

In Year 1 NER membership has grown to 626 organizations and is on target for the 5-year goal of recruiting 150 new organizations. With membership in the network no longer being tied to Docline participation or having a lending library, effort was made to reach out to new community based organizations, community colleges, and public libraries. Membership benefits were promoted at exhibits and as part of the Focused Outreach effort. Our two consortia partners (Littleton Regional Hospital in Littleton, NH and Portland Public Library, Portland, ME) made a concerted effort to reach health professionals and consumers in traditionally rural and underserved areas, talking to them about their information needs. Additionally, NER encourage participants attending data programming and regional groups involved in the National Public Health Coordinating Office to sign up for membership. These institutions, primary academic libraries and Public Health Organizations, have valued the educational programs NER provides, and with the membership categories changing are now being perused to sign up for membership. The NER Network is now more representative of those of we serve.

2. NNLM NER will actively engage Network Members in the work of NER.

NER has engaged with Network Members and others throughout Year 1 in a variety of ways. Classes, events, outreach, exhibiting has all been designed and implemented to reach the maximum amount of people in the most efficient way, while also meeting the wide ranging needs of the varied populations served. Communication between Network Members and NER is a top priority and facilitates the successful engagement of members with NER programming. Communication offers consistent, current engagement between NER and membership in a variety of mediums. The NERs weekly newsletter has been very well received by membership and had a reach in Year 1 of 12,798. Facebook and Twitter have also been a successful way of engaging people through social media.

Other forms of engagement and communication have included hosting in person and online updates. These are opportunities for the NER staff to communicate work, accomplishments, opportunities, and solicit feedback from all stakeholders throughout New England. The annual online update had 73 participants. Updates are also giving throughout the Year 1 various events, such as regional organizations' board meetings or other group meetings. There were a total of 207 participants at all of these updates. NER also established numerous advisory boards. These Advisory boards meet regularly to provide feedback and direction that help shape future work and programming. Finally, NER staff work throughout the year with individual sites and people to foster a sense of engagement and open communication. This is achieved through site visits (27 site visits, reaching 159 people in Year 1), attendance at regional events, and innumerable phone conversations and email help.

NER actively involves membership by creating a structure that allows members to drive content and programming. Communities of Interest focus on specific topics that have been expressed as areas where more information and skill development is needed. The communities in Year 1 were patient engagement, instructional design, and emerging rolls. Programming and information offered through the COIs helps meet the needs of our members while engaging them in the process. Similarly, data programming has been member driven and successful. Data programming has included webinars, roundtable discussions, skill building workshops, and online information. These programs have remained popular and in demand from members.

The National Public Health Coordination Office works closely with regional libraries to support its work. This includes creating collaborations between libraries and Public Health Departments to offer InterLibrary Loan and provide training on the Public Health Digital Library and National Library of Health resources.

3. NNLM NER will foster communication, coordination, and collaboration among Network Members and the populations they serve.

NER has facilitated the work of Network Members by helping create connections between groups and individuals. NER has brought together its Members and partners in events that are designed to offer opportunities for groups to meet, network, and form collaborations. For example, NER held a funding partner's events where all awardees from Year 1 were invited to share their projects and provide feedback about the award process. Different organizations from across New England could gather, learn about each other, learn about the projects, and discover mutual areas of interest or possible collaboration. Similarly, NER facilitated a webinar session specifically designed as an opportunity for hospital librarians to have a space and forum to discuss needs, challenges, opportunities, and potential collaborations.

NER staff have worked throughout Year 1 to bring together organizations and individuals from across New England who could then work together to meet the needs of their population. For example, a project that works educating high school students on healthcare topics partnered with a group providing health information to blind and low vision people. The high school students were able to create projects looking at the unique health challenges that blind, low vision, or other people with disabilities would face. Another example is the partnership between Portland, ME Public Library, one of the consortium awards, and the University of New England. This collaboration connected health science undergraduate students to provide education and outreach to an underserved community. A final example is the Nashua, NH Office of Emergency Management partnering with local public libraries to provide trainings and information on the role of libraries in a disaster. These activities, and others supported by NER throughout the year, have been very well received at the local level. There is a strong stated need from NER members that opportunities for connection and discussion are valuable. NNLM NER has worked throughout Year 1 to provide events, time, information, and facilitation to meet this need.

The data program began in NER with a model of collaboration and engagement that has gone to be replicated nationwide. This model has also been replicated in other fields, such as the social sciences. This can be seen in the Science Boot Camps which were originated by NER. These have now become entirely member driven and Boot Camps in the Social Sciences and other disciplines have started. Other data programming has been successful in New England and is having an impact throughout the country. Webinars and events attract participation from all regions. These events have been NER member driven and have resulted in increased collaboration and engagement throughout New England.

4. NNLM NER will measure success pertaining to impact and quality through evaluation metrics and tools developed by the National Evaluation Office.

NER has worked closely with the National Evaluation Office in the implementation of nationwide evaluation efforts. NER staff have used the tools provided and worked closely with NEO staff to offer feedback on these tools. Additionally, NER has developed a number of in-house tracking and evaluation methods. Feedback from participants at NER events has been collected and evaluated. Staff have kept detailed records of work and accomplishments. Finally, new technologies have been implemented in the NER office to track and report data gathered. All evaluation efforts are used in real time to improve the work and opportunities offered. Data and findings are shared with all members and others throughout NER. Information is regularly disseminated through a variety of mediums in an effort to maintain transparency and gain timely feedback. All evaluation efforts, feedback, and collaboration with NEO are used to improve NER and the work it does throughout the region.

C. OVERALL PRODUCTS

C.1 PUBLICATIONS

Are there publications or manuscripts accepted for publication in a journal or other publication (e.g., book, one-time publication, monograph) during the reporting period resulting directly from this award?

No

C.2 WEBSITE(S) OR OTHER INTERNET SITE(S)

Nothing to report

C.3 TECHNOLOGIES OR TECHNIQUES

Nothing to report

C.4 INVENTIONS, PATENT APPLICATIONS, AND/OR LICENSES

Have inventions, patent applications and/or licenses resulted from the award during the reporting period?

No

C.5 OTHER PRODUCTS AND RESOURCE SHARING

Nothing to report

D. OVERALL PARTICIPANTS

D.1 WHAT INDIVIDUALS HAVE WORKED ON THE PROJECT?

Commons ID	S/K	Name	Degree(s)	Role	Cal	Aca	Sum	Foreign Org	Component(s)	Country	SS
PIORUNM	Y	Piorun, Mary Elizabeth	BA,MBA,MLS,PHD	PD/PI	9	0	0		Admin Core-7738 (National Network of Librar...nd (Region 8)), Core-7735 (Education and Outreach Core), Core-7736 (Access to Biomedical Health...ormatio n Core)		NA
	N	Dahlen, Karen	MSLS	Consultant	9	0	0		Core-7737 (Public Health Coordination Office)		NA
	N	Kelly, Ryan		Undergraduate Student	1	0	0				NA
	N	Mackes, Robert	MSLS	Consultant	1	0	0		Core-7736 (Access to Biomedical Health...ormatio n Core)		NA
	N	Burrows, Brandie	MSLS	Health Team Leader	1	0	0		Core-7735 (Education and Outreach Core)		NA
	N	Conners, Anne	MSLS	Sub PI	1	0	0		Core-7735 (Education and Outreach Core)		NA
	N	Eberle, Michelle	MLSLS	Education and Outreach Coordinator	4	0	0		Core-7735 (Education and Outreach Core)		NA
	N	Halpin, Susan	M.Ed	Education and Outreach Coordinator	9	0	0		Core-7735 (Education and Outreach Core)		NA
	N	Herrera, Allison	MSLS	Communications and Technology Coordinator	9	0	0		Admin Core-7738 (National Network of Librar...nd (Region 8)), Core-7737 (Public Health Coordination Office)		NA
	N	Kurtz-Rossi,	M.Ed	Sub PI	1	0	0		Core-7735		NA

		Sabrina							(Education and Outreach Core)		
	N	Lavallee, Cheryl		Financial Assistant	12	0	0		Admin Core-7738 (National Network of Librar...nd (Region 8))		NA
	N	Malachowski, Margot	MSLS	Education and Outreach Coordinator	3	0	0		Core-7735 (Education and Outreach Core)		NA
	N	Noe, Matthew	MSLS	Education and Outreach Coordinator	1	0	0		Core-7735 (Education and Outreach Core)		NA
	N	Vernes, Cecilia	MSLS	Education Coordinator	4	0	0		Core-7737 (Public Health Coordination Office)		NA
GOLDMJ	N	Goldman, Julie	MSLS	Data and Research Coordinator	9	0	0		Core-7736 (Access to Biomedical Health...ormatio n Core)		NA
JCORPSE	Y	Crespo, Javier	MSLS	Core Lead	10	0	0		Core-7737 (Public Health Coordination Office)		NA
MARTINELAINE	Y	MARTIN, ELAINE R	BA,DOTh, MS	PI (May 2016-August 2016)	1	0	0		Admin Core-7738 (National Network of Librar...nd (Region 8)), Core-7735 (Education and Outreach Core), Core-7736 (Access to Biomedical Health...ormatio n Core)		NA
MEACHAMM	Y	Meacham, Martha	BS,MA,MLS	Associate Core Lead	7	0	0		Admin Core-7738 (National Network of Librar...nd (Region 8)), Core-7735 (Education and Outreach Core), Core-7736 (Access to Biomedical Health...ormatio n Core)		NA

Glossary of acronyms:

S/K - Senior/Key

DOB - Date of Birth

Cal - Person Months (Calendar)

Aca - Person Months (Academic)

Sum - Person Months (Summer)

Foreign Org - Foreign Organization Affiliation

SS - Supplement Support

RE - Reentry Supplement

DI - Diversity Supplement

OT - Other

NA - Not Applicable

D.2 PERSONNEL UPDATES**D.2.a Level of Effort**

Will there be, in the next budget period, either (1) a reduction of 25% or more in the level of effort from what was approved by the agency for the PD/PI(s) or other senior/key personnel designated in the Notice of Award, or (2) a reduction in the level of effort below the minimum amount of effort required by the Notice of Award?

Yes

For the beginning of Year 1 (May- August 2016) Elaine Martin, DA was the PD/PI for the grant at 6% effort. Dr. Martin left the institution in September 2016 and Mary Piorun, PhD who was budgeted to work 65% effort on the grant as the Associate Director was elevated to PD/PI. In turn Dr. Piorun's level of effort was changed from 65% to 71% for September 2016-April 2017. For Year 2 Dr. Piorun's level of effort is budgeted at 40% and will continue to oversee the budget and administration of the grant. Martha Meacham, MSLS will be the Acting Associate Director at 100%. Dr. Piorun will continue to work with Ms. Meacham as she learns the administrative aspects of the Associate Director position.

D.2.b New Senior/Key Personnel

Are there, or will there be, new senior/key personnel?

Yes

File uploaded: CombinedBioSketchSupport.pdf

D.2.c Changes in Other Support

Has there been a change in the active other support of senior/key personnel since the last reporting period?

No

D.2.d New Other Significant Contributors

Are there, or will there be, new other significant contributors?

No

D.2.e Multi-PI (MPI) Leadership Plan

Will there be a change in the MPI Leadership Plan for the next budget period?

NA

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Meacham, Martha

eRA COMMONS USER NAME (credential, e.g., agency login): MEACHAMM

POSITION TITLE: Acting Associate Director - NNLM NER

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Plymouth State University, Plymouth, New Hampshire	BS	12/2006	Psychology
Simmons College, Boston, Massachusetts	MA	05/2013	History
Simmons College, Boston, Massachusetts	MLS	05/2013	Library & Information Science

A. Personal Statement

I am the Acting Associate Director for the National Network of Libraries of Medicine New England Region (NNLM NER). I have worked as a professional librarian for 5 years. Previously, I worked in the health care field as a mental health counselor. As a Health Science Librarian, I have consistently advanced the field of librarianship by participating in research, presenting, publishing, and being active in professional organizations. I have also focused my career in library management and leadership, actively developing my skills and experience in these areas. Prior to joining NNLM NER, I lead and managed two hospital libraries with the Veterans Health Administration. Throughout my career I have been very active in professional organizations and have taken multiple leadership positions. This has served my position with the NNLM NER by increasing the connections and collaborations I have with people across New England. In my work with NNLM NER, I have used my experience and skill to help advance NNLM NER's mission and strengthen the work impacting New England. I have built strong relationships with NNLM NER members and have been able to understand their local environments, concerns, challenges, and strengths. This has resulted in successful collaborations and projects. Additionally, it has increased knowledge, skill, and the ability to provide biomedical information to underserved communities throughout New England. This has also contributed to my goals of increasing the professional growth of librarians and strengthen librarianship as a whole.

1. Meacham ME, Reznick-Zellen R, Gore S, Netherton Dane. Partnering With Purpose: Developing a novel tutorial on research data management with the Quantitative Methods Core.. Medical Library Association Conference; 2015 May; Austin, TX.
2. Meacham ME. Making Women's Health Connections: Between Researchers and to Resources. North Atlantic Health Science Libraries Conference; 2014 October; Rockport, ME.
3. Meacham ME, Martin E. Building the Future: Rejecting, Rethinking, Redoing, and Rejuvenating Medical Librarianship. Medical Library Association Conference; 2014 May; Chicago, IL.
4. Meacham ME. Implementing and Evaluating Cancer Consumer Health Programming. Medical Library Association Conference; 2012 May; Seattle, WA.

B. Positions and Honors

Positions and Employment

2013 - 2014 Grant Project Manager, UMMS Women's Health Resources Dissemination Outreach
RPPR

	Project – Lamar Soutter Library
2013 - 2016	Library Fellow, Lamar Soutter Library, University of Massachusetts Medical School
2016 - 2016	Head Librarian, Veterans Health Administration
2016 - 2017	Education and Outreach Coordinator, National Network of Libraries of Medicine, New England Region
2017 -	Acting Associate Director - NNLM NER, UNIV OF MASSACHUSETTS MED SCH WORCESTER

Other Experience and Professional Memberships

2011 -	Member, Medical Library Association
2013 -	Board Member, North Atlantic Health Science Librarians

Honors

2006	Psi Chi, Psychology Honor Society
2012	New Voices Award, Medical Library Association
2013	Beta Phi Mu, International Library & Information Studies Honor Society

C. Contribution to Science

1. Providing access to and education about the best use of evidence based information in health care for practitioners, providers, researchers, students, and the public.
 - a. Meacham ME. Making Women's Health Connections: Between Researchers and to Resources. North Atlantic Health Science Libraries Conference; 2014 October; Rockport, ME.
 - b. Meacham ME, Martin E. Building the Future: Rejecting, Rethinking, Redoing, and Rejuvenating Medical Librarianship. Medical Library Association Conference; 2014 May; Chicago, IL.
 - c. Meacham ME, Martin E. Building the Future: Rejuvenating Librarianship. Association of College and Research Libraries: New England Chapter Annual Meeting; 2014 May; Worcester, MA.
 - d. Meacham ME. Implementing and Evaluating Cancer Consumer Health Programming. Medical Library Association Conference; 2012 May; Seattle, WA.
2. Improved and promote access to women's health resources, specifically among women faculty and the students and residents they teach.
 - a. Meacham ME. Making Women's Health Connections: Between Researchers and to Resources. North Atlantic Health Science Libraries Conference; 2014 October; Rockport, ME.
3. Facilitated the work and research of students, researchers, and scientists by providing education and information on best practices for data management and copyright.
 - a. Meacham ME. Book Review: Rights in the Digital Era. New England Archivists Newsletter. 2016 January; 43(1):20.
 - b. Meacham ME, Reznick-Zellen R, Gore S, Netherton Dane. Partnering With Purpose: Developing a novel tutorial on research data management with the Quantitative Methods Core.. Medical Library Association Conference; 2015 May; Austin, TX.
 - c. Meacham ME. Martha Meacham on Navigating Copyright Issues: When Should We Be Concerned?. [Internet]. AEA365 Blog2015 April. Available from: <http://aea365.org/blog/martha-meacham-on-navigating-copyright-issues-when-should-we-be-concerned/>.
 - d. Meacham ME. Literature Search Strategy Week: Martha Meacham on Constructing a Literature Search – The Vocabulary Roadmap. [Internet]. AEA365 Blog2014 November. Available from: <http://aea365.org/blog/literature-search-strategy-week-martha-meacham-on-constructing-a-literature-search-the-vocabulary-roadmap/>.

Complete List of Published Work in My Bibliography:

<http://bit.ly/2lu1CUS>

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing Research Support

1UG4LM012347-01, NIH/NLM Piorun (PI) 05/01/16-04/30/21

National Network of Libraries of Medicine, New England Region

The major goals of this project are provide information, outreach, and resources sharing services to health professionals and consumers in six New England States.

Role: CPI

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: **Javier Crespo**

eRA COMMONS USER NAME (credential, e.g., agency login): **jcorpse**

POSITION TITLE: Core Lead

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
DePaul University, Chicago, IL	BA	05/1989	Communications
University of Illinois, Urbana-Champaign, IL	MLS	12/1994	
University of Massachusetts Boston, Boston, MA	MPA	05/2014	

A. Personal Statement

I am the current Core Lead for the National Public Health Coordination Office. I have worked providing information services to public health students and professionals throughout my career. As Assistant Professor of Information Services at University of Illinois at Chicago, I was a project partner in a study examining the effects of providing information support to public health students. Part of that project involved designing and teaching a course on public health information resources and datasets. Throughout my career I have been part or leading efforts to design and implement outreach approaches that examined community environments and designed approaches to reaching previous underserved audiences with information support and training. As Associate Director of the NNLM New England Region where NPHCO's precursor, the Public Health Information Access Project, was initiated I was closely involved in providing justification for funding, establishing the project, and administering its initial phases where the first ten public health departments were brought on to the project. I have worked closely with current and previous directors of the NN/LM NER to strategize approaches to transforming the project into a stable and sustainable program serving an underserved sector of the health care infrastructure.

B. Positions and Honors

Positions and Employment

1995 - 1997	Visiting Instructor, University Libraries, University of Illinois at Chicago, Chicago, IL
1997 - 1999	Assistant Professor, Information Services, University of Illinois at Chicago, Chicago, IL
1999 - 2000	Assistant Director, HealthNet, Lamar Soutter Library, UMMS, Worcester, MA
2000 - 2002	Consumer Health Information Coordinator, NNLM New England Region, Worcester, MA
2002 - 2012	Associate Director, NNLM New England Region, Worcester, MA
2013 - 2015	Associate University Librarian, University of Massachusetts Boston, Boston, MA
2016 -	Manager, National Public Health Coordination Office, Worcester MA, MA

Other Experience and Professional Memberships

Honors

C. Contribution to Science

1. My career follows how libraries have responded to their institutional mission to contribute to the public good through engagement with community based institutions serving underserved or disadvantaged populations. I have been part of information services to: groups responding to the AIDS/HIV crisis; health providers at community health centers adapting to information delivery and automation of practice workflows; and practice groups providing automated patient education resources. Each project demonstrates the need for

careful assessment of needs, knowledge of clinical and administrative ecosystems, and how important they can be as precursor-projects to creating effective information- supported systems. As a large and multi-disciplinary sector of the health care infrastructure, the public health workforce is an under-supported group requiring specialized information resources. Lessons learned in documenting needs, health care ecosystems, and documenting pilot phases have been important to developing the work of the National Public Health Coordination Office.

- a. Dahlen K, Crespo J, Martin ER. Investing in America's public health workforce: shaping new roles for librarians. Medical Library Association Annual Meeting; 2011 May 17; Minneapolis, MN, USA.
- b. Creamer A, Morales M, Crespo J, Kafel D, Martin ER. Assessment of health sciences and science and technology librarian e-science educational needs to develop an e-science web portal for librarians. J Med Libr Assoc. 2011 Apr;99(2):153-6. PubMed PMID: [21464853](#); PubMed Central PMCID: [PMC3066590](#).
- c. Crespo J. Training the health information seeker: quality issues in health information websites. Library Trends. Fall 2004; 53(2):360-374.
- d. Martin ER, McDaniels C, Crespo J, Lanier D. Delivering health information services and technologies to urban community health centers: the Chicago AIDS Outreach Project. Bull Med Libr Assoc. 1997 Oct;85(4):356-61. PubMed PMID: [9431424](#); PubMed Central PMCID: [PMC226292](#).

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing Research Support

1UG4LM012347-01, NIH/NLM Piorun (PI) 05/01/16-04/30/21

National Network of Libraries of Medicine, New England Region

The major goals of this project are provide information, outreach, and resources sharing services to health professionals and consumers in six New England States.

Role: CPI

E. OVERALL IMPACT

E.1 WHAT IS THE IMPACT ON THE DEVELOPMENT OF HUMAN RESOURCES?

Not Applicable

E.2 WHAT IS THE IMPACT ON PHYSICAL, INSTITUTIONAL, OR INFORMATION RESOURCES THAT FORM INFRASTRUCTURE?

NOTHING TO REPORT

E.3 WHAT IS THE IMPACT ON TECHNOLOGY TRANSFER?

Not Applicable

E.4 WHAT DOLLAR AMOUNT OF THE AWARD'S BUDGET IS BEING SPENT IN FOREIGN COUNTRY(IES)?

NOTHING TO REPORT

F. OVERALL CHANGES

F.1 CHANGES IN APPROACH AND REASONS FOR CHANGE

Not Applicable

F.2 ACTUAL OR ANTICIPATED CHALLENGES OR DELAYS AND ACTIONS OR PLANS TO RESOLVE THEM

NER experienced an extensive turnover in staff from the time the proposal was submitted through Q2 (two education and outreach coordinators, the financial assistant, and the PI for the grant). The result was a delay in some aspects of the program as new staff were recruited and hired. Going into Year 2 NER has 7 FTE and one vacancy, NPHCO 2 FTE and zero vacancies. The 7 FTE for NER includes Mary Piorun, PhD serving as the PI (previously servicing as co-Lead in the NER for 5 years) and Martha Meacham, MSLS serving as Core Lead of the NER program. In the, National Public Health Coordinating Office (NPHCO Javier Crespo is serving as Core Lead.

F.3 SIGNIFICANT CHANGES TO HUMAN SUBJECTS, VERTEBRATE ANIMALS, BIOHAZARDS, AND/OR SELECT AGENTS

F.3.a Human Subjects

No Change

F.3.b Vertebrate Animals

No Change

F.3.c Biohazards

No Change

F.3.d Select Agents

No Change

G. OVERALL SPECIAL REPORTING REQUIREMENTS

G.1 SPECIAL NOTICE OF AWARD TERMS AND FUNDING OPPORTUNITIES ANNOUNCEMENT REPORTING REQUIREMENTS
 NOTHING TO REPORT

G.2 RESPONSIBLE CONDUCT OF RESEARCH
 Not Applicable

G.3 MENTOR'S REPORT OR SPONSOR COMMENTS
 Not Applicable

G.4 HUMAN SUBJECTS
G.4.a Does the project involve human subjects?
 No

G.4.b Inclusion Enrollment Data
 Not Applicable

G.4.c ClinicalTrials.gov
Does this project include one or more applicable clinical trials that must be registered in ClinicalTrials.gov under FDAAA?

G.5 HUMAN SUBJECTS EDUCATION REQUIREMENT
Are there personnel on this project who are newly involved in the design or conduct of human subjects research?

G.6 HUMAN EMBRYONIC STEM CELLS (HESCS)
Does this project involve human embryonic stem cells (only hESC lines listed as approved in the NIH Registry may be used in NIH funded research)?
 No

G.7 VERTEBRATE ANIMALS
Does this project involve vertebrate animals?
 No

G.8 PROJECT/PERFORMANCE SITES

Organization Name:	DUNS	Congressional District	Address
Primary: University of Massachusetts Medical School	603847393	MA-002	55 Lake Ave. North Worcester MA 016550002
Littleton Regional Healthcare	069905735	NH-02	600 Saint Johnsbury Road Littleton NH 03561
Portland Public Library	120383914	ME-01	5 Monument Square Portland ME 04104
Tufts Univesrity School of Medicine	069905735	MA-08	136 Harrison Ave Boston MA 02111

A. COMPONENT COVER PAGE

Project Title: Education and Outreach Core

Component Project Lead Information:

Piorun, Mary Elizabeth

B. COMPONENT ACCOMPLISHMENTS

B.1 WHAT ARE THE MAJOR GOALS OF THE PROJECT?

1. The NNLM NER will partner with Network Members to implement a focused outreach program connecting medically underserved, minority populations, and the health professionals who serve them with quality health information products and services.
2. The NNLM NER will provide resources, outreach, and education to public health workers throughout New England.
3. The NNLM NER will provide a suite of health information courses and presentations on biomedical and health resources emphasizing NLM products for both consumers and health professionals.
4. The NNLM NER will engage with Network Members to identify and develop programming to support emerging roles for health information professionals.
5. The NNLM NER will collaborate with Network Members to identify “under-connected” community-based organizations, libraries, schools, and health professionals to upgrade and introduce new technologies to ensure access to health information.
6. The NNLM NER will promote NLM and NER programs and services by exhibiting at national, state, and local events.
7. The NNLM NER will provide and administer a funding program to support the outreach and education programs described in this core.

B.1.a Have the major goals changed since the initial competing award or previous report?

No

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?

File uploaded: NNLM-NER_Accomplishments_Ed&Outreach.pdf

B.3 COMPETITIVE REVISIONS/ADMINISTRATIVE SUPPLEMENTS

Not Applicable

B.4 WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?

File uploaded: B4_Training_Ed&Outreach.pdf

B.5 HOW HAVE THE RESULTS BEEN DISSEMINATED TO COMMUNITIES OF INTEREST?

Facebook: NER had 87 Facebook posts that had a reach of 21,422 and an interaction count of 365.

Twitter: NER sent out 129 tweets with 102,843 impressions, 5,680 profile visits, 159 mentions.

Newsletter: There were 42 weekly newsletter updates sent, with a reach (total number sent) of 12,798. There were 249 unique new subscribers to the newsletter during Year 1.

Website: The NNLM NER website had a total of 10,151 sessions, 19,125 page views, with 6,916 unique users.

Blog: The NNLM NER blog had 4,689 sessions, 7,274 page views, and 3,288 unique users.

- NNLM NER staff hosted webinars on funding the Annual Update; both were recorded and posted to the YouTube Channel.
- NER staff offered regular updates at the regional association board meetings.
- Information was posted quarterly on the website that detailed the previous quarters work and accomplishments.
- Staff presented a poster of year one work and accomplishments to community organizations at the 6th Annual Community Engagement and Research Symposium at University of Massachusetts Medical School.

*March/April data is an estimate based on current trends.

B.6 WHAT DO YOU PLAN TO DO DURING THE NEXT REPORTING PERIOD TO ACCOMPLISH THE GOALS?

Aim 1: The NNLM NER will partner with Network Members to implement a focused outreach program connecting medically under served, minority populations, and the health professionals who serve them with quality health information products and services.

- NER will maintain its Focused Outreach program. In year 2 the urban area is Boston, Massachusetts and the rural area is York County, Maine.

- The Education and Outreach Coordinators in the NER will follow the established process of doing an environmental assessment through conducting Key Informant Interviews; taking a tailored implementation approach using the existing promotional framework of NN/LM NER and its resources involving site visits, classes, exhibiting and funding; and finally, providing evaluation and a comprehensive approach documenting the process of conducting focused outreach and assessing outputs and outcomes as a way of measuring the effectiveness of the focused outreach model utilizing methods.

Aim 2: The NNLM NER will provide resources, outreach, and education to public health workers throughout New England.

- NER Education and Outreach Coordinators will continue to collaborate public health outreach and training activities with the NPCHO by providing ongoing training and reference assistance in the New England Region to the public health workforce.

Aim 3: The NNLM NER will provide a suite of health information courses and presentations on biomedical and health resources emphasizing NLM products for both consumers and health professionals.

- NER Education and Outreach Coordinators will offer a variety of health information literacy presentations on NLM resources, such as

MedlinePlus and PubMed.

- The previous goal was to do 18 training sessions a year. This target was easily met. NER will increase the number of trainings offered to at least 25 during Year 2.
- NER will continue to collaborate with the National Training Office and with other regions to promote offerings and partner in the creation and presentation of new educational opportunities.

Aim 4: The NNLM NER will engage with Network Members to identify and develop programming to support emerging roles for health information professionals.

- NER will continue to work with and support its Communities of Interest: Instructional Design, Patient Engagement, and Emerging Roles. Programming and education in each of these area will be developed. The target is that in each of the three areas NER will do two webinars or in-person education opportunities and have COI leaders produce at least two blog posts specific to their COI area.
- The Graphic Medicine initiative will continue. NER will offer at least two educational opportunities focused in this area. The book kits developed during Year One will begin to be distributed. Success of that program will be tracked and evaluated.
- NER will continue to collaborate on national initiatives including the continuation of the journal club. NER has committed to at least three more sessions. NER will work with other regions on other opportunities to engage and educate health information professionals.

Aim 5: The NNLM NER will collaborate with Network Members to identify “under-connected” community-based organizations, libraries, schools, and health professionals to upgrade and introduce new technologies to ensure access to health information.

- NER will work with community and healthcare organizations to identify and offer education or solutions to technology challenges.
- NER will fund technology improvement projects for the purchase of laptops, computers, printers, tablets, projectors, and distance learning technology.
- NER Education and Outreach Coordinators will work with Network Members to identify and develop projects that use these types of technologies in the healthcare environment.

Aim 6: The NNLM NER will promote NLM and NER programs and services by exhibiting at national, state, and local events.

- With guidance from NNCO on National exhibiting needs, NER will focus exhibiting on regional and local opportunities.
- Exhibiting opportunities will emphasize reaching previously under served groups or populations. Additionally, new markets and healthcare areas will be sought.
- NER's target is to exhibit at least once in every state and with at least two regional events, for a total target of 6 local/regional exhibits. Special priority will be given to exhibits that take place or reach the populations targeted in the Focused Outreach areas.

Aim 7: The NNLM NER will provide and administer a funding program to support the outreach and education programs described in this core.

- NER will issue Requests for Proposals and administer the funding program. NER will offer guidance, support and education to awarded projects.

- NER will continue the support of two consortium awards:

- Portland Public Library: The planning team will meet regularly to discuss all aspects of the project and to continue to improve upon our data collection tools. Continue training for local health professionals, PPL reference staff, and the general public, especially our target audience. At least two health trainings specific for teens in year two will be provided. The health advisory board (ConnectMed) will continue to meet bi-monthly with the goal of strengthening partnerships with local health organizations and improving access to under served populations. We will post the job announcement and interview for Library Health Outreach position and hire outreach staff to start in year 2. This position will work approximately 25 hours a week. Continue monthly health screenings with UNE students. After partnering with a health literacy expert to create a health literacy program for target community, we will provide health literacy trainings for general public and target community. Working with our MaineHealth partner, we will develop patient engagement resources by tailoring their program to our target community. Brandie will work with Bookmobile manager to develop health outreach based on our services and trainings. Continued outreach to target community with health resources. Brandie will speak at state library conference about our health program.

Our target audiences and dates for presentations are New England Library Association in October 2017 (<http://nelib.org/>) and Maine Library Association's conference in October 2018 (<http://mainelibraries.org/>). We will continue to seek out possible venues to share information and findings from this project nationally.

- Littleton: The major outcome for Year Two of this project is to implement an electronic library to which all four sites in the North Country Healthcare affiliation have seamless access. The activities that support this goal include the arranging vendor contracts, working with the National Library of Medicine and the vendors to set up the LinkOut utility, publicizing the project, and conducting training & site visits. The project manager will begin working with the web designer to develop a preliminary project website, which will contain links to core resources, such as PubMed, guidelines.gov, and other NLM resources. As e-resources are licensed, we will add links to the project website for easy access. Initially, we will run PubMed trainings at each site during the first quarter of this performance period, explaining that once we have e-journal licensing in place, we will utilize the LinkOut feature for direct access to the licensed products. Each site's quarterly visit (expect to spend an entire day) will include a training component, which will be determined based on the needs at each site.

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?

1. *The NNLM NER will partner with Network Members to implement a focused outreach program connecting medically underserved, minority populations, and the health professionals who serve them with quality health information products and services.*

- a) Major activities:
 - a. **Partnerships:** Conducted Key Informant Interviews with stakeholders in the Cape Cod, MA and Providence, RI regions to identify local health information needs.
 - b. **Exhibiting:** Engaged with local community members through exhibiting.
 - c. **Education:** Provided train-the-trainer sessions and information trainings and/or presentations on NLM information resources to local community members.
 - d. **Funding:** Worked with and provided support to organizations in the focused outreach areas who applied for and received funding. Advised and supported application process, planning, implementation, training, reporting, and evaluation.
- b) Specific objectives:
 - a. Provide outreach, training, funding, and creating community connections for two geographic locations in New England: one rural, Cape Cod and Islands in MA, and one urban, Providence, RI.
- c) Significant results: (April/May data is estimated based on current trends)
 - a. **Partnerships:** 37 new partnerships developed with a wide variety of organizations and stakeholders throughout the two Focused Outreach regions, many of whom had no previous connection to NNLM NER.
 - b. **Exhibiting:** Engaged with 191 local consumers at 3 exhibiting events in Providence, RI
 - c. **Education:** Conducted 18 training sessions in the Focused Outreach areas, reaching 246 people. These included public and academic librarians, social workers, community organizers, English as a Second Language (ESL) teachers, and consumers.
 - d. **Funding:** Funded seven Focused Outreach awards, all first time awardees.
- d) Key outcomes:
 - a. **Partnerships:** New organizations and individuals partnered with NNLM NER, received training and information, and became members.
 - b. **Exhibiting:** Exhibiting was an effective and successful way of identifying new opportunities and groups to partner with for funding, training, or other outreach.
 - c. **Education:** Education efforts and events were successful and all targets were met.
 - d. **Funding:** Positive outcomes and benefit from all seven of the Focused Outreach award projects. Participants describe making an impact in their communities and on targeted health topics. For example, Team Maureen has expanded their HPV Prevention presentation to include the MedlinePlus tools available for identifying good health information on the web along with how to obtain information about HPV from PubMed and MedlinePlus. As a result of our funding Team Maureen has also put together a free downloadable toolkit for dentists available on their website to encourage screenings for HPV-related diseases at each dental check-up.

2. *In collaboration with the NPHCO, NNLM NER will provide resources, outreach, and education to public health workers throughout New England.*

- a) Major activities:
 - a. Facilitated the creation of a new PHPartners subject webpage in Evidence-Based Public Health and updated two topic areas: HIV/AIDS and Environmental Health.
 - b. Held meetings with staff at county Public Health offices throughout New England.
- b) Specific objectives:
 - a. Maintain open and constant communication and collaboration between NPHCO and NNLM NER; Help both offices build and maintain relationships with outside groups and organizations
 - b. Provide training on NLM information resources.
- c) Significant results:
 - a. Three meetings were held with Public Health offices. Information and education was provided. Strong relationships built with Public Health Departments in New England.
 - b. Successful information sharing between the NPHCO and NNLM NER.
- d) Key outcomes:

- a. Provided information and support for the successful establishment and growth of the NPHCO.

3. *The NN/LM NER will provide a suite of health information courses and presentations on biomedical and health resources emphasizing NLM products for both consumers and health professionals.*

- a) Major activities:
 - a. **Regional Programming:** Created, coordinated and conducted training on PubMed, MedlinePlus, ToxNet, LactMed, K-12 resources, health information on the internet, Senior health, and other NLM products and resources.
 - b. **National:** Coordinated and collaborated with the National Training Office and other regions to promote national offering throughout NER; participate in national training sessions; promote local NER programs nationally.
- b) Specific objectives:
 - a. **Regional Programming:** Offer a variety of health information literacy presentations on NLM resource; Offer classes in-person and online using a variety of formats including hands-on in a computer lab, lecture style, Moodle, and webinars.
 - b. **National:** Working with the National Training Office (NTO), resource presentations will be customized with relevant examples for each audience. NER will work in collaboration with the other NN/LM regions to avoid duplication of work and maximize creativity of training programs.
- c) Significant results: (March/April data is estimated based on data trends)
 - a. **Regional:** NER coordinators held 31 educational programs (target 18) reaching 623 individuals.
 - b. **National:** NER worked with the National Training Office and other regions to successfully provide a wide range of educational opportunities to people throughout New England; 395 individuals from outside of New England attended NER lead education programs, the most popular being *Creating a campus-wide research data services committee: The good, The bad, and The...* which had 85 registrations from outside of New England.
- d) Key outcomes:
 - a. **Regional:** There was high demand for and engagement with educational programming put on by NER. Evaluations performed indicated a high level of new knowledge gained and satisfaction with trainings.
 - b. **National:** NER successfully promoted national and other regions' programs. NER is successfully doing its own programming that is reaching a national audience.

4. *The NN/LM NER will engage with Network Members to identify and develop programming to support emerging roles for health information professionals.*

- a) Major activities:
 - a. **Communities of Interest:** Planned, prepared and conducted activities that fit within the Communities of Interest – Patient Engagement, Emerging Roles, and Instructional Design.
 - b. **Graphic Medicine:** Hosted educational events both in person and online that introduce topic to librarians and consumers; assembled 10 book kits for distribution to public libraries
 - c. **National Collaboration:** Partnered with other NNLM regions to develop and host a virtual Journal club, highlighting and educating about topics of importance to health science librarians
- b) Specific objectives:
 - a. **Communities of Interest:** Communities of Interest engage and offer education to all types of librarians across New England.
 - b. **Graphic Medicine:** Introduce and offer training on this new area of interest for librarians and other stakeholders.
 - c. **National Collaboration:** Work with other regions to offer educational or professional development opportunities to librarians.
- c) Significant Results (March/April data is estimated based on data trends)

- a. **Communities of Interest:** Hosted 6 COI webinars reaching 126 people.
 - b. **Graphic Medicine:** Hosted one in-person event that was also streamed live to people from around the country, reaching a total of 57 people. Hosted a webinar *Introduction to Graphic Medicine*, reaching a total of 95 people.
 - c. **National Collaboration:** Held first of four planned journal club meetings. Total participation was 88 people. NER facilitated the breakout discussion of 10 people from the region.
- d) Key outcomes:
- a. **Communities of Interest:** There was discussion with COI and regional members about the topics covered by the current COIs. Using this feedback, the current topics of Emerging Roles, Instructional Design, and Patient
 - b. **Graphic Medicine:** The graphic medicine initiative is reaching a national audience and there has been a large amount of interest from librarians and others in the topic. NER has used a variety of methods – speakers, webinars, book kits – to reach people and disseminate information.
 - c. **National Collaboration:** Successful collaboration with other regions, increasing the reach and impact of all participating NNLM offices.

5. *The NN/LM NER will collaborate with Network Members to identify “under-connected” community-based organizations, libraries, schools, and health professionals to upgrade and introduce new technologies to ensure access to health information.*

- a) Major activities:
- a. **Funding:** Worked with National Network Coordinating Office (NNCO) to approve and post 2016-2017 Technology RFP.
 - b. **Focused Outreach:** Work within the focused outreach areas to address issues of internet access
 - c. **Education:** Provide online and in-person training session that explore technology issues and finding reliable health information on the internet
- b) Specific objectives:
- a. **Funding:** RFP posted to website and announcements
 - b. **Focused Outreach:** Connect community groups and organizations in the Focus Outreach areas with resources and information to promote information and technological access.
 - c. **Education:** Webinars and in-person programs explore implementation and management of technology based projects.
- c) Significant results: (March/April data is estimated based on data trends)
- a. **Funding:** Funded 9 awards specifically focused on improving technology for under connected organizations. These organizations included elementary and high schools, hospital libraries serving patients and practitioners, and community based organizations serving disabled or disenfranchised individuals. They included funds to purchase of laptops, computers, printers, tablets, projectors, and distance learning technology.
 - b. **Focused Outreach:** Supported the implementation of a Wi-Fi Hotspot loan program in the Focused Outreach area of Providence, RI. Hotspots were distributed with information about finding reliable health information on the internet and NLM products.
 - c. **Education:** Trainings were provided to each of the 9 technology award sites. There were 4 other trainings which focused on the use of technology or finding and evaluating health information on the internet.
- d) Key outcomes:
- a. **Funding:** Successfully supported community driven efforts to increase technology and internet access. For example, a health kiosk and information distribution system was installed and implemented at a library in our Focused Outreach area. This library was able to use the kiosk and train the public. This impacted a large senior citizen population in the community who were able to use this disability and low vision friendly device. Additionally, the kiosk was configured to easily provide materials in Portuguese for a large and underserved Brazilian community.

- b. **Education:** Distributed valued information about internet and health information online to underserved communities. For example, one of the funded projects worked with blind and low vision individuals. NER staff helped provide education and materials to this community on a variety of devices. NLM resources and education were made available electronically, in a format that was accessible.

6. *The NNLM NER will promote NLM and NER programs and services by exhibiting at national, state, and local events.*

- a) Major activities:
- a. Exhibited at events in all six New England States, connecting with a wide variety of different health areas and professions.
- b) Specific objectives:
- a. Serve as a regional ambassador for the National Library of Medicine to healthcare professionals, the public health workforce, librarians, and the public. Make connections to groups and organizations that had previously not worked with or been aware of the products and serves from NLM and NNLM NER.
- c) Significant results: (March/April data is estimated based on data trends)
- a. In Year 1, NER exhibited 17 times with 864 meaningful interactions (March/April data is estimated based on data trends). Exhibits focused on health topics or populations including; Academic librarians, public librarians, health science librarians, primary care practitioners, addiction specialists and caregivers, medical students, public health workers, senior health practitioners, assistive technology users and supporters, autism specialists, emergency response personnel, Science teachers, and cancer care practitioners and patients.

Conference/State	Audience	Meaningful Interactions
MassCUE Annual Conference/MA	Educators, Public	66
NAHSL Conference/RI	Health Science Librarians	19
The Assistive Technology Conference of New England/CT	Disability healthcare providers and patients	86
Teach Us to Treat/MA	Medical Students	94
Summit for Clinical Excellence: Mindfulness, Meditation and Addiction Conference/RI	Addiction Treatment practitioners and researchers	59
Gear Up for Research/NH	Researchers	36
Rhode Island Health Equity Summit/RI	Public health, healthcare providers, consumers	82
Massachusetts STEM Summit/MA	Researchers, educators	35
Healthy Aging Fair/MA	Consumers, Senior citizens, healthcare providers	10
Transforming Primary Care and Behavioral Conference/VT	Healthcare providers	27
ACRL New England/VT	Librarians	Approx. 50
RI Science Teachers Association Conference/RI	K-12 Science Teachers	Approx. 50
NH Science Teachers Association Conference/NH	K-12 Science Teachers	Approx. 50
Comprehensive Cancer Care Collaborative Conference/NH	Oncology healthcare providers and the public	Approx. 50
Massachusetts Association of Health Science Librarians Meeting/MA	Health Science Librarians	Approx. 50
Vermont Blueprint for Health/VT	Healthcare providers	Approx. 50

Maine Partners in Emergency Medicine/ME	Emergency responders, healthcare workers	Approx. 50
	Total	864

d) Key outcomes:

- a. A close evaluation was conducted on exhibiting and the cost effectiveness of this activity. It was determined that exhibiting at smaller low-cost events is worth the investment in money and time as it yields a greater opportunity to engage with visitors and plan follow-up activities.
- b. Exhibits were selected reach populations, groups, and organizations where relationships were not as well established. The NNLM NER was able to create many new relationships and reach many new areas through these exhibits.

7. The NN/LM NER will provide and administer a funding program to support the outreach and education programs described in this core.

a) Major activities:

- a. Worked with NNCO for approval of RFP's; Issued a Request for Proposal to New England organizations; Offered peer reviewed feedback on proposals; Offered support those projects that were funded; Maintained communication, feedback, reporting, and management support for all awardees throughout the funding period

b) Specific objectives:

- a. Distributing funds to network members is a proven method to engage regional, state, and local libraries, community organizations, and individuals in the work of the NLM and NER

c) Significant results:

- a. 26 successfully funded projects across New England, which have had a significant impact on a wide variety of communities and individuals.
- b. Funding includes 3 consortium awards:
 - i. **Littleton:** Year one of this project is proceeding well and has completed the major goals outlined for this Period of Performance: Purchase laptop and projector, identify site liaisons, conduct Focus Group sessions at each site, Prepare Focus Group report, identify resources for group licensing, obtain consortia pricing.
 - ii. **Portland Public Library:** The planning team began to plan and organize the data collection tools to improve user experience at the library, consulting with other organizations on methodology and work flow. Educational workshops have been conducted. The Advisory structure and individuals are in place. The goals set for year one have been met and progress is on track for continuation of the project.
 - iii. **Tufts:** The Health Literacy Leadership Institute at Tufts University School of Medicine worked with the Hirsch Health Science Library at Tufts University School of Medicine and CommunicateHealth, a nationally recognized plain language health communication firm, to develop and implement Health Literacy Collaborations as a component of the established Plain Language for Health (PL4H): A Writing and Design Workshop. Accomplishments to date include developing the Plain Language for Health (PL4H) and Facilitrainer / Collaborations Website and Application form; extensive marketing and social media outreach promoting the PL4H Workshop nationally and the Facilitrainer / Collaborations component to librarians and health information specialist throughout New England; instructional design and planning for Facilitrainer training and technical assistance; and development of an evaluation plan.

d) Key outcomes:

- a. Of 26 awarded projects, 17 went to new organizations that had not previously ever received funding or had a relationship with NNLM NER.
- b. Awarded projects made beneficial impacts to individuals across New England. This impacts include providing education, increasing access to information, improvement of access and use of technology, improving the information available to make health related decisions, and others.

B.4 WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?**B.4 What opportunities for training and professional development has the project provided?**

Title	Description	# of Participants
LIME Supporting Medical Education in a Primary Care Clerkship	Webinar for Academic health Science librarians discuss librarian involvement in medical education	46
Health & Wellness @ the Library	Presentation for public librarians on using NLM resource and helping people find reliable health information on the internet.	10
MLA Webinar Viewing: Designing Online Instruction: It's Not Just for Distance Education Anymore	MLA webinar sponsored and hosted by NER to learn new and exciting ways to create online instructional materials	6
MLA Webinar Viewing: What's Theory Got to Do with It? Learning Theories, Instructional Design, and the Librarian	MLA webinar sponsored and hosted by NER to learn about different areas and aspects of teaching and instructional design.	6
MLA Webinar Viewing: Don't Flip Out! Exploring Team-Based Learning	MLA webinar sponsored and hosted by NER to learn about using a flipped classroom model for trainings	4
MLA Webinar Viewing: Setting Yourself Up for Success with Learning Assessment	MLA webinar sponsored and hosted by NER to learn about assessment methods librarians can use for different types of training	4
PubMed for Medical and Academic Librarians	Training on the use of Pubmed.	12
MLA Webinar: Beyond Systematic	MLA webinar sponsored and hosted by NER to learn about the skills need when doing a systematic review	21
Training of Brown University Librarians	Provided overview of NNLM NER and NLM resources. Also provided education about and applicability of eScience.	16
Training of pediatric OT, PT and speech therapists at OTWorks4Kids	Discussion of resources and awards from NNLM. Training on MedlinePlus and other resources.	8
Providence Community Libraries All Staff Training	Training on MedlinePlus and other NLM Resources for all staff in the	28

	Focused Outreach area of Providence, RI	
Overview of NLM Resources for Patient Education and Advocacy	Training for community organizations and workers.	1
Introduction to PubMed and MedlinePlus for High School Students	Training for high school students on the use of MedlinePlus and finding reliable, quality health information on the internet.	18
Introduction to the NLM, NNLM-NER Educational and Outreach Resources	Training for clinical and medical staff.	22
MLA Webinar: Project Management	MLA webinar sponsored and hosted by NER to learn skill needed for successful project management.	16
Librarian as Researcher	Webinar to hear from four researchers about how their research projects have developed over time and how you can embrace the Librarian as Researcher role.	92
Introduction to the NLM, NNLM-NER Educational and Outreach Resources	Training for public health and community based providers.	7
MedlinePlus and K-12 Resources Training	Training for K-12 teachers focused on MedlinePlus and resources for curriculum development.	2
Training of Staff at Portland, ME public Library	Training of public library staff on Pubmed, MedLinePlus and other resources	15
LiME and COI Webinar "Invite More Action! How to create interactive, student-centered learning environments"	Webinar focused on instructional design in the creation of online learning materials.	50
health information reference services	An overview for public librarians on providing quality health resources and doing a reference interview.	30
Simmons West Lecture	Discussion with library school students about the different roles and resources specific to health science librarianship	15
Training of NECHI Librarians	Training of health science librarians on Pubmed and NCBI resources	12
Training of Staff at West Tisbury Public Library	Training on MedlinePlus and other NLM Resources for all staff in the	6

	Focused Outreach area of Cape Cod, MA	
Vermont Hospital Librarian Training	Training of Vermont hospital librarians on Pubmed and NCBI resources	8
Introduction to Graphic Medicine Webinar	A webinar for librarians and community organizations interested in incorporating Graphic Medicine and visual storytelling into their work.	50
Providence Public Library All Staff Training	Training on MedlinePlus and other NLM Resources for all staff in the Focused Outreach area of Providence, RI	33
Training of Providence Community Health Workers	MedlinePlus and NLM resources in other languages for Community health workers and social workers in the Focused Outreach area of Providence, RI	21
Training Providence ESL Teachers	MedlinePlus and NLM resources in other languages for ESL teachers in the Focused Outreach area of Providence, RI	14
Unique aspects of Health science librarianship webinar	Discussion with library students and others interested in the field about the unique aspects and resources of Health Science Librarianship	30
Augmented Reality & Virtual Reality in Healthcare	Webinar discussing the application and use of VR and AR in healthcare and how librarians can become involved.	20
TOTAL		623

C. COMPONENT PRODUCTS

C.1 PUBLICATIONS

Not Applicable

C.2 WEBSITE(S) OR OTHER INTERNET SITE(S)

Not Applicable

C.3 TECHNOLOGIES OR TECHNIQUES

Nothing to report

C.4 INVENTIONS, PATENT APPLICATIONS, AND/OR LICENSES

Not Applicable

C.5 OTHER PRODUCTS AND RESOURCE SHARING

Category	Explanation
Educational aids or curricula	9 of the funded projects from year one produced curricula incorporating NLM products and resources.
Audio or video	4 videos highlighting outreach activities (in process)
Physical collections	10 Graphic Medicine Book kits. Each kit contains 6 books, a reading guide, and NLM resources.

D. COMPONENT PARTICIPANTS

Not Applicable

E. COMPONENT IMPACT**E.1 WHAT IS THE IMPACT ON THE DEVELOPMENT OF HUMAN RESOURCES?**

Not Applicable

E.2 WHAT IS THE IMPACT ON PHYSICAL, INSTITUTIONAL, OR INFORMATION RESOURCES THAT FORM INFRASTRUCTURE?

Not Applicable

E.3 WHAT IS THE IMPACT ON TECHNOLOGY TRANSFER?

NOTHING TO REPORT

E.4 WHAT DOLLAR AMOUNT OF THE AWARD'S BUDGET IS BEING SPENT IN FOREIGN COUNTRY(IES)?

Not Applicable

F. COMPONENT CHANGES**F.1 CHANGES IN APPROACH AND REASONS FOR CHANGE**

Not Applicable

F.2 ACTUAL OR ANTICIPATED CHALLENGES OR DELAYS AND ACTIONS OR PLANS TO RESOLVE THEM

NOTHING TO REPORT

F.3 SIGNIFICANT CHANGES TO HUMAN SUBJECTS, VERTEBRATE ANIMALS, BIOHAZARDS, AND/OR SELECT AGENTS**F.3.a Human Subjects**

No Change

F.3.b Vertebrate Animals

No Change

F.3.c Biohazards

No Change

F.3.d Select Agents

No Change

G. COMPONENT SPECIAL REPORTING REQUIREMENTS

G.1 SPECIAL NOTICE OF AWARD TERMS AND FUNDING OPPORTUNITIES ANNOUNCEMENT REPORTING REQUIREMENTS Not Applicable
G.2 RESPONSIBLE CONDUCT OF RESEARCH Not Applicable
G.3 MENTOR'S REPORT OR SPONSOR COMMENTS Not Applicable
G.4 HUMAN SUBJECTS G.4.a Does the project involve human subjects? No
G.4.b Inclusion Enrollment Data Not Applicable
G.4.c ClinicalTrials.gov Not Applicable
G.5 HUMAN SUBJECTS EDUCATION REQUIREMENT Not Applicable
G.6 HUMAN EMBRYONIC STEM CELLS (HESCS) Does this project involve human embryonic stem cells (only hESC lines listed as approved in the NIH Registry may be used in NIH funded research)? No
G.7 VERTEBRATE ANIMALS Not Applicable
G.8 PROJECT/PERFORMANCE SITES Not Applicable
G.9 FOREIGN COMPONENT Not Applicable
G.10 ESTIMATED UNOBLIGATED BALANCE Not Applicable
G.11 PROGRAM INCOME Not Applicable
G.12 F&A COSTS Not Applicable

--

A. COMPONENT COVER PAGE

Project Title: Access to Biomedical Health Information Core

Component Project Lead Information:

Piorun, Mary Elizabeth

B. COMPONENT ACCOMPLISHMENTS**B.1 WHAT ARE THE MAJOR GOALS OF THE PROJECT?**

1. Provide a regional infrastructure supporting data literacy, data management, and data curation
2. Provide web-based resources and curricular opportunities for librarians to retool their skills in data literacy, data management, data curation, and data preservation activities
3. Provide web-based resources and educational opportunities for researchers to learn data management best practices
4. Increase awareness amongst New England area librarians and researchers about eScience and how librarians support biomedical research
5. Collaboratively work with Network Members to support access to print and electronic biomedical and health information throughout the region
6. Provide and administer a funding program to support the access to biomedical and health information and data management programs described in this core

B.1.a Have the major goals changed since the initial competing award or previous report?

No

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?

File uploaded: Access_Accomplishments_NER.pdf

B.3 COMPETITIVE REVISIONS/ADMINISTRATIVE SUPPLEMENTS

Not Applicable

B.4 WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?

File uploaded: Access_Training_NER.pdf

B.5 HOW HAVE THE RESULTS BEEN DISSEMINATED TO COMMUNITIES OF INTEREST?

New issues of the Journal of eScience Librarianship are disseminated via the eScience Community Blog, the DataLibs listserv, and Twitter.

JeSLIB: Volume 5 Issue 1

Blog Post: New Issue: Journal of eScience Librarianship

URL: <http://esciencecommunity.umassmed.edu/2016/12/19/new-issue-journal-of-escience-librarianship/>

Results from professional development activities have been disseminated on the eScience Community Blog (<http://esciencecommunity.umassmed.edu>). Blog posts are contributed by the Data and Research Coordinator or attending participants. Blog posts are then disseminated via Twitter and the DataLibs listserv.

Event Description: Open Science Framework Demonstration & RDM Roundtable Discussion

Blog Post: Notes from the June New England RDM Roundtable Discussion

URL: <http://esciencecommunity.umassmed.edu/2016/08/12/notes-from-the-june-new-england-rdm-roundtable-discussion/>

Event Description: Data Visualization and the Library and Research Data Management Roundtable Discussions

Blog Post: Notes from the November 2016 New England RDM Roundtable Discussion

URL: <http://esciencecommunity.umassmed.edu/2016/12/27/notes-from-the-november-2016-new-england-rdm-roundtable-discussion/>

Event Description: NER Presents ACRL RDM Roadshow: Building Your Research Data Management Toolkit

Blog Post: Reflection: ACRL Data Management Roadshow in Boston

URL: <http://esciencecommunity.umassmed.edu/2017/02/16/reflection-acrl-data-management-roadshow-in-boston/>

Event Description: Breaking Down RDM Instruction Roundtable Event

Blog Post & URL: To be disseminated

Event Description: 2017 Data Symposium

Blog Post & URL: To be disseminated

An 'open meeting' was held with the Data Advisory Board meeting. Members were invited to join in on the board's monthly meeting to hear about what the Advisory Board does and the projects the board and supporting committees are working on. The hope was to engage more members and also gain an understanding of what members are interested in.

Event Description: Open eScience Advisory Board Meeting

Blog Post: Open Call: Join us for an eScience Advisory Board meeting!

URL: <http://esciencecommunity.umassmed.edu/2017/02/07/join-us-for-an-escience-advisory-board-meeting/>

B.6 WHAT DO YOU PLAN TO DO DURING THE NEXT REPORTING PERIOD TO ACCOMPLISH THE GOALS?

Year 2 Quarter 1: May – July

1. New England Science Boot Camp for Librarians (June)
2. Educational webinar
3. Migration of data program website to NWSO

Year 2 Quarter 2: August – October

1. Roundtable Event
2. Release new issue of JeSLIB
3. Update and migration of NECDMC (pending)

Year 2 Quarter 3: November – January

1. Educational Webinar

Year 2 Quarter 4: February – April

1. Roundtable Event
2. Data Symposium (April)

Ongoing

- Blog, twitter, listserv posts to facilitate communications
- Populate project website
- Monthly meetings of the Data Advisory Board

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?**B.2 What was accomplished under these goals?***1. Provide a regional infrastructure supporting data literacy, data management, and data curation*

- a) Major activities:
 - a. **Establish Data Advisory Board Structure:** Gather input from network members on NER data initiatives and programming.
- b) Specific objectives:
 - a. **Data Advisory Board:** Establish Data Advisory Board by identifying network and non-network community members who are interested in our programming and initiatives; Define roles and responsibilities of board members; Identify communication methods and meeting frequency
- c) Significant results:
 - a. **Data Advisory Board:** Held two in-person meetings for Data Advisory Board members and ten virtual meetings; Established Advisory Board and Subcommittees for regional data initiatives; Established monthly virtual meetings with the Data Advisory Board; Developed Open Science Framework Project site for the data program, component groups and supporting materials to be stored and shared
- d) Key outcomes:
 - a. **Data Advisory Board:** Advisory Board and supporting committee members are engaged and have initiated projects willingly and independently

2. Provide web-based resources and curricular opportunities for librarians to retool their skills in data literacy, data management, data curation, and data preservation activities

- a) Major activities:
 - a. **Data Program Website:** Reviewed the regional data and research program website for new grant period and established working groups to review content and assignments; Began working with the NNLM Web Services Office to migrate regional program website to a national level resource; Data and Research Coordinator attended “UX Lightning Round with UXPA@Simmons and Simmons ASIS&T” at Simmons College to demonstrate the regional data and research program website
 - b. **Educational Programming:** Host the 2017 Data Symposium; Hold round-table discussions for network members on data management, literacy, curation, and preservation
- b) Specific objectives:
 - a. **Data Program Website:** Establish data program website Editorial Board and designated content areas of expertise for content curation; Reconceive the data program website for Librarians as a national effort across all eight NNLM regional offices
 - b. **Educational Programming:** Address the New England Collaborative Data Management Curriculum needs for updated content and format
- c) Significant results:
 - a. **Data Program Website:** Held “data program website Content Editors' Orientation” for Editorial Board members; Provided the National Network Steering Committee Data Sub-Group an overview of the NER data program website; A new project was started to revise and update the Data Thesaurus
 - b. **Educational Programming:** Held 2017 Data Symposium (100 attendees); Held seven professional development events attended by 516 network members (6 in-person, 2 online webinars)
- d) Key outcomes:
 - a. **Data Program Website:** Resource is viewed as a critical aspect of educating librarians across the nation; Planning is underway to migrate content from University of Massachusetts to NLM servers

<i>NER Data Program Website Usage Q1-Q3</i>	Sessions	Page Views	Blog Posts	Comments
Totals	5,521	10,712	46	4

- b. **Educational Programing:** NER programing is seen as a national model and serves as a foundation for regional replication for other regions to replicate

3. *Provide web-based resources and educational opportunities for researchers to learn data management best practices*

- a) Major activities:
 a. **Researcher Working Group:** A subgroup of the Data Advisory Board established to investigate needs of the research community regarding data management.
- b) Specific objectives:
 a. **Researcher Working Group:** Begin an environmental scan in order to inform the creation of a data program website for researchers'
- c) Significant results:
 a. **Researcher Working Group:** Literature survey strategy developed and underway
- d) Key outcomes:
 a. n/a

4. *Increase awareness amongst New England area librarians and researchers about eScience and how librarians support biomedical research*

- a) Major activities:
 a. **Promotion:** Maintain a strong web presence through social media, websites and email
 b. **Publication:** Publish the Journal of e-Science Librarianship (JeSLIB)
- b) Specific objectives:
 a. **Promotion:** Continue virtual outreach and awareness (social media, listservs); Attend meetings and conferences to present on NNLM and data resources for librarians in the STEM disciplines
 b. **Publication:** Solicit content for JeSLIB; Recruit reviewers
- c) Significant results:
 a. **Promotion:** Established JeSLIB Twitter feed and NER DataLibs listserv; Attended AAAS Annual Meeting, Boston MA: presented at the 'Librarian Reception"; Exhibited with Pacific Northwest Region at RDAP Summit, Seattle, WA
 b. **Publication:** Board surveyed for commitment, some members remained, others dropped and replaced by new members. There was also an establishment of a Board listserv and more frequent communication with the Board.
- d) Key outcomes:

<i>JeSLIB Usage Q1-Q3</i>	Downloads	Articles Posted	Issues Published
Totals	11,886	7	1

<i>JeSLIB Twitter Q1-Q3</i>	Tweets	Impressions	Profile Visits	Mentions	New Followers
Totals	84	55,821	3,841	57	53

<i>DataLibs Listserve Q1-Q3</i>	Posts	New Members	Total Members
Totals	74	142	477

<i>NEReScience Twitter Q1-Q3</i>	Tweets	Impressions	Profile Visits	Mentions	New Followers
Totals	292	108,388	8,459	222	62

5. *Collaboratively work with Network Members to support access to print and electronic biomedical and health information throughout the region*

- a) Major activities:
 - a. Engaged the Health Sciences Library Association of New Jersey's (HSLANJ) Group Licensing Initiative (GLI) as a consultant to survey Hospital Librarians in NER on their interest in participating in a regional licensing program for electronic resources
- b) Specific objectives
 - a. Conducted a survey of hospital librarians in the region to determine interest in participating in HSLANJ GLI
 - b. Meet and talk with hospital librarians to discuss services available to them
 - c. Include NER hospital librarians in Spring 2017 Offer Renewal Period (offer slated for release 15 March 2017)
- a) Significant results:
 - a. Hospital librarians in the region are very interested in seeing what GLI has to offer to them
 - b. Vendors, by and large, are excited about extending GLI offerings
- a) Key outcomes:
 - a. Forty-five hospital librarians (or representatives) responded to the survey
 - b. Survey provided a good snapshot of the state of hospital libraries in the region
 - i. Majority of hospitals are less than 400 beds, and 2/3 of responding hospitals are stand-alone hospitals, not part of a larger system
 - ii. Majority of respondents estimate that their collections are 75% electronic or more
 - iii. Potential for growth among many GLI vendors
 - c. Presentation and discussion with hospital librarians at NAHSL meeting produced many good questions and provided a significant amount of very useful information for planning purposes
 - d. Additional meetings with hospital librarian groups, and individual librarians, in the coming 18-24 months will prove extremely helpful for GLI planning, and for assisting librarians in transitioning to more electronic collections and purchasing via the GLI

6. *Provide and administer a funding program to support the access to biomedical and health information and data management programs described in this core*

- a) Major activities:
 - a. **Funding:** Worked with National Network Coordinating Office (NNCO) to approve and post 2016-2017 RFP; Discussed feasibility of cross region funding with National Network Coordinating Office (NNCO); Submitted one data management proposal to NNCO for review.
- b) Specific objectives:
 - a. **Funding:** RFP posted to website and announcements distributed
- c) Significant results:
 - a. **Funding:** One proposal funded (*Rethinking Early Neurosurgery: The Harvey Cushing Collection*, Yale Medical Library, New Haven, CT) and one denied (*Understanding the Role of the Medical Library in the Era Omics and Precision Medicine*, Yale Medical Library, New Haven, CT).
- d) Key outcomes
 - a. **Funding:** Worked with NNCO to identify appropriate proposals for funding.

B.4 WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?**B.4 What opportunities for training and professional development has the project provided?**

Title/Mode/Location	Description	Participants
New England Science Boot Camp for Librarians (in-person) Dartmouth, MA	2 ½ day event; Civil & Environmental Engineering, Nursing, Physics	58
Open Science Framework Demonstration & RDM Roundtable Discussion (in-person) Brighton, MA	Presentation from April Clyburne-Sherin, Center for Open Science on the Open Science Framework (OSF); Roundtable Discussion and Share & Tell on One-Shot Workshop Instruction	22
MLA Webinar Viewing: Are All Systematic Reviews Created Equal? (in-person) Worcester, MA	Identify the criteria for critically appraising a published systematic review; Identify the tools and resources that are available to help readers with this task; Understand the layout of a forest plot, the graphical representation of the conclusions of a systematic review or meta analysis	20
MLA Webinar Viewing: Getting Started with Statistics for Librarians (in-person) Worcester, MA	Understand basic statistical terms such as standard deviation, t test, p value, and so on; Identify test measures used in published research studies; Interpret the data, formulas, and graphs used in the research findings	15
MLA Webinar Viewing: Demystifying R: An Introduction for Librarians (in-person) Worcester, MA	What the R programming language is and some of its key features; Key terminology and a basic understanding of how R works; Uses for that R may be a good solution for your data needs, including data processing and management, visualization, and statistical analysis; How R can be useful for working with research data, as well as with library data, including bibliometric data, library statistics, or budget data; Free resources for learning R	14
Data Visualization and the Library and Research Data Management Roundtable Discussions (in-person) Durham, NH	Two Expert Presentations on Data Visualization and the Library; Tour of UNH's Data Visualization Research Lab; Roundtable Discussion on Event Planning and Outreach	26
Sponsored Webinar: Creating a campus-wide research data services committee: The good, The bad, and The... Part 1 (online) Worcester, MA	Part 1 Panel of Presenters; Building bridges and planting seeds; Focus on early-stage efforts to build partnerships and bring key stakeholders to the table	125
Sponsored Webinar: Creating a campus-wide research data services committee: The good, The bad, and The... Part 2 (online) Worcester, MA	Part 2 Panel of Presenters; Launching your collaboration; Identify best practices and lessons learned for working with established committees who are working on broad-scale projects and programs	117

Title/Mode/Location	Description	Participants
NER Presents ACRL RDM Roadshow: Building Your Research Data Management Toolkit (in-person) Boston, MA	One-day Workshop including tools, hints, and tricks for getting started and/or comfortable with RDM services	99
Breaking Down RDM Instruction Roundtable Event (in-person) Amherst, MA	Panel and Roundtable Discussion on Learning Objectives; Hands-on workshop on assignment design; Roundtable Discussion on instruction assessment	(projected) 20
9th Annual University of Massachusetts and New England Area eScience Symposium (in-person) Worcester, MA	“Libraries in Data Science: Addressing Gaps and Bridges” will focus on collaborations and opportunities for librarians becoming involved in data science at their institutions.	(projected) 100
	Total	616

C. COMPONENT PRODUCTS**C.1 PUBLICATIONS**

Not Applicable

C.2 WEBSITE(S) OR OTHER INTERNET SITE(S)

Not Applicable

C.3 TECHNOLOGIES OR TECHNIQUES

Nothing to report

C.4 INVENTIONS, PATENT APPLICATIONS, AND/OR LICENSES

Not Applicable

C.5 OTHER PRODUCTS AND RESOURCE SHARING

Nothing to report

D. COMPONENT PARTICIPANTS

Not Applicable

E. COMPONENT IMPACT

E.1 WHAT IS THE IMPACT ON THE DEVELOPMENT OF HUMAN RESOURCES?

Not Applicable

E.2 WHAT IS THE IMPACT ON PHYSICAL, INSTITUTIONAL, OR INFORMATION RESOURCES THAT FORM INFRASTRUCTURE?

Not Applicable

E.3 WHAT IS THE IMPACT ON TECHNOLOGY TRANSFER?

NOTHING TO REPORT

E.4 WHAT DOLLAR AMOUNT OF THE AWARD'S BUDGET IS BEING SPENT IN FOREIGN COUNTRY(IES)?

Not Applicable

F. COMPONENT CHANGES**F.1 CHANGES IN APPROACH AND REASONS FOR CHANGE**

Not Applicable

F.2 ACTUAL OR ANTICIPATED CHALLENGES OR DELAYS AND ACTIONS OR PLANS TO RESOLVE THEM

NOTHING TO REPORT

F.3 SIGNIFICANT CHANGES TO HUMAN SUBJECTS, VERTEBRATE ANIMALS, BIOHAZARDS, AND/OR SELECT AGENTS**F.3.a Human Subjects**

No Change

F.3.b Vertebrate Animals

No Change

F.3.c Biohazards

No Change

F.3.d Select Agents

No Change

G. COMPONENT SPECIAL REPORTING REQUIREMENTS

G.1 SPECIAL NOTICE OF AWARD TERMS AND FUNDING OPPORTUNITIES ANNOUNCEMENT REPORTING REQUIREMENTS Not Applicable
G.2 RESPONSIBLE CONDUCT OF RESEARCH Not Applicable
G.3 MENTOR'S REPORT OR SPONSOR COMMENTS Not Applicable
G.4 HUMAN SUBJECTS G.4.a Does the project involve human subjects? No
G.4.b Inclusion Enrollment Data Not Applicable
G.4.c ClinicalTrials.gov Not Applicable
G.5 HUMAN SUBJECTS EDUCATION REQUIREMENT Not Applicable
G.6 HUMAN EMBRYONIC STEM CELLS (HESCS) Does this project involve human embryonic stem cells (only hESC lines listed as approved in the NIH Registry may be used in NIH funded research)? No
G.7 VERTEBRATE ANIMALS Not Applicable
G.8 PROJECT/PERFORMANCE SITES Not Applicable
G.9 FOREIGN COMPONENT Not Applicable
G.10 ESTIMATED UNOBLIGATED BALANCE Not Applicable
G.11 PROGRAM INCOME Not Applicable
G.12 F&A COSTS Not Applicable

--

A. COMPONENT COVER PAGE

Project Title: Public Health Coordination Office

Component Project Lead Information:

Crespo, Javier

B. COMPONENT ACCOMPLISHMENTS**B.1 WHAT ARE THE MAJOR GOALS OF THE PROJECT?**

- 1.To expand the existing public health Digital Library (DL) model, based on multiple partnerships including state public health departments (PHDs), partner libraries (hospital, academic, and state), RMLs, publishers, and vendors in order to provide access to desktop evidence-based resources.
- 2.To identify trusted resources that are core, useful, and evidence-based to improve public health practice and to provide seamless access to full-text resources via IP authentication.
- 3.To create a robust educational plan with ongoing training for project participants in Digital Library resources, including NLM products and services.
- 4.To enhance communication between the NPHCO and all project participants and stakeholder groups.
- 5.To develop a sustainable enterprise Digital Library model for public health and outline cost models for future development.

B.1.a Have the major goals changed since the initial competing award or previous report?

No

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?

File uploaded: NPHCO_Accomplishments.pdf

B.3 COMPETITIVE REVISIONS/ADMINISTRATIVE SUPPLEMENTS

Not Applicable

B.4 WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?

File uploaded: NPHCO_Training.pdf

B.5 HOW HAVE THE RESULTS BEEN DISSEMINATED TO COMMUNITIES OF INTEREST?

In addition to promoting availability of the PHDL to Public Health Departments through CDC, NLM, and existing contacts, a poster session was presented at the Public Health Informatics Conference in Atlanta, GA in August 2016. Highlights of the project and its transition to a national program were conveyed in poster format; the NPHCO Manager and Consultant discussed the project with approximately 25 public health professionals throughout the conference.

In July 2016 a NPHCO website was launched to serve as a resource for information on the program. In December 2016, conforming to the design elements of the NNLM, a newly designed NPHCO website was made available. The website includes a list of participants, a PDF of the journal and book in the collection, and the details of the program for interested public health departments.

Two overview sessions of the NPHCO office were conducted:

- In July 2016 an overview was done with members of the Mid Continent Region.
- In January 2017, an overview was given to PHHS and Library staff for the CDC.

B.6 WHAT DO YOU PLAN TO DO DURING THE NEXT REPORTING PERIOD TO ACCOMPLISH THE GOALS?

- Bring on new participating states into the PHDL program by May 2017
- Conclude vendor negotiations and establish new resource list of the PHDL collection
- Assure all states have access to resources by confirming IP Addresses and conveying these to all vendors
- Provide the PHDL delivery system for all departments: offer a generic but customizable template or maintain one locally residing page where users will access all resources
- Announce and offer assistance with including PHDL funding within CDC Block Grant funding applications.
- Collect and disseminate data on resource use and article delivery transactions for each PHDL
- Offer training on information resources to access evidence based information in support of public health practice

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?**B2. What was accomplished under these goals?**

In Year 1 the National Public Health Coordination Office (NPHCO) laid the groundwork establishing the Public Health Digital Library (PHDL) as a service offering evidence-based information resources to public health departments across the country. The major challenge for NPHCO this year is transitioning Public Health Departments (PHDs), currently participating in the Public Health Information Access project, into a pricing model where Public Health Departments would bear the responsibility of financially supporting the costs of PHDL licensed resources. Significant communication had already taken place with PHDs as project leaders, and consultants had been communicating the relevant changes to be made to the program. The National Network Coordinating Office (NNCO) at NLM (National Library of Medicine) also worked towards establishing a viable funding stream for PHDs with the Center for Disease Control's (CDC) Preventive Health and Health Services (PHHS) Block Grant funding mechanism. Upon being awarded the National Public Health Coordination Office funding, the Director of the Lamar Soutter Library and the Associate Director of the NNLM New England Region begun staffing the office; shortly into Year 1 Javier Crespo was hired as the NPHCO Manager, assuming the strategic and operational responsibilities of the program.

1. *Expand access to information resources offered to public health departments throughout the country through the Public Health Digital Library (PHDL).*
 - a) Major activities:
 - a. Communicate Program Changes to Participants: Moving from a subsidized program to a department-supported model required continual early communication. Multiple forms of communication were used to inform Public Health Departments of the program changes, along with providing quotes, gathering commitments, and collecting payments. Similarly, library partners and National Network of Libraries of Medicine (NNLM) regional offices were informed of the program changes. In-person visits were made to PHDs considering implementing the PHDL: Georgia, Idaho, and District of Columbia.
 - b. Established a Pricing Model: To continue offering PHDs access to the licensed information resources, a pricing model was developed based on the size of the Department's staff and the goal of negotiating pricing for the same resources as collected for the previous year. Pricing was set for PHDs to commit to participating in the designated 2017-2018 Access Year (running May 2017 through April 2018).
 - c. Planning System and Operational Architectures: While access to resources through the PHDL has been constant throughout all departments, technical support and educational programming has been ad hoc throughout the project. A technical support system and instructional program were strategized using NPHCO funding. Although the NPHCO staff are new, the shifting of the NPHCO planning and operational areas are underway.
 - b) Specific objectives:
 - a. Renew Resources Included in the PHDL: A goal has been to maintain the current configuration and number of resources available through the PHDL for the next Access Year. Pricing for continued access by PHDs was established based on previous year's total costs.
 - c) Significant results:
 - a. Invoice Participants: Departments were informed they would be invoiced throughout November 2016 – December 2016 with payments expected at the end of December 2016.
 - b. Inform Participants of Funding Sources: Participants were notified of the availability of Block Grant (BG) funding from the CDC. While most participants did not utilize that funding mechanism, a small number of PHDs considering the PHDL program were able to apply for BG funds.
 - d) Key outcomes:
 - a. Enrollment of PHD's: To date 16 PHDs have committed to paying for PHDL. A number of PHDs informed NPHCO of their inability or unwillingness to continue the program, of these, two are reconsidering participation.

Departments Continuing Participation 2017-2018

1. Alaska Division of Public Health
2. Arkansas Department of Health
3. Colorado Department of Public Health and the Environment
4. Connecticut Public Health Department
5. Indiana State Department of Health
6. Kentucky Department of Public Health
7. Maine Center for Disease Control & Prevention
8. Massachusetts Department of Public Health
9. Multnomah County (Oregon) Department of Health
10. New Hampshire Department of Health and Human Services
11. New Mexico Department of Health
12. Tennessee Department of Health
13. Utah Department of Health
14. Vermont Department of Health
15. Washington State Department of Health
16. West Virginia Bureau for Public Health

Departments Considering Continued Participation in PHDL 2017-2018

1. Rhode Island Department of Health
2. Wisconsin Department of Health Services

New Departments Considering Participating in PHDL 2017-2018

1. Arizona Department of Health Services
2. District of Columbia Department of Health
3. Idaho Division of Public Health
4. Georgia Department of Public Health
5. Oklahoma State Department of Health

Departments Not Continuing Participation in PHDL

1. Boston Public Health Commission
2. Hawaii State Department of Health
3. Maryland Department of Health and Mental Hygiene

2. *Develop an instruction plan to train users in finding timely evidence based research in support of public health practice.*

a) Major activities:

- a. User Training: Conducted two on-site training sessions for Multnomah County Health Department (Oregon): August 2016 and February 2017.
- b. Engage Partner Libraries: Librarians from Oregon Health Sciences University assisted and led the training sessions.
- c. Trainers: An Education Coordinator was hired to establish and lead the training program in December 2017.

b) Specific objectives:

- a. Training Curriculum: Establish a program of courses to train participants in finding evidence-based public health resources.
- b. Hands on Training: Offer onsite training for newly participating Public Health Departments.
- c. Distance-based Programs: Develop and offer online training programs featuring the resources available through the Public Health Digital Library.

c) Significant results:

- a. Two onsite training sessions have been conducted.
- b. An instruction schedule is being developed.
- c. Strong investment from partner libraries assisting in onsite training.

- d) Key outcomes:
 - a. Fifty public health workers received training in using the PHDL.
 - b. Strengthened previous model of collaboration with partner libraries.
 - c. Additional interest from neighboring counties (in Oregon) have sought more information about PHDL.
- 3. *Offer access to shared resources available through partnering libraries.*
 - a) Major activities:
 - a. Reimburse Partner Libraries for providing article delivery to their local PHD.
 - b. Establish Partner Libraries for newly participating PHDs.
 - b) Specific objectives:
 - a. Develop Partner Libraries for new PHDs who can support article delivery and instruction.
 - c) Significant results:
 - a. Partner Libraries in development:
 - 1. University of Arizona
 - 2. University of Idaho
 - 3. University of Oklahoma
 - 4. Emory University/Morehouse School of Medicine (Georgia)
 - 5. George Washington University
 - d) Key outcomes:
 - a. Existing Public Health Departments utilize the availability of article delivery to supplement their PHDL access. Use varies across departments; generally, departments Using article delivery request between 5 to 10 articles a month.
 - b. New PHDs are aware of the important role of Partner Libraries and the benefit of article delivery support.
 - c. Participants and Other Collaborating Organizations: A primary component of the program is to offer alternative article delivery for material not held by the PHDL collection. Partner Libraries have been established for each PHD acting as document delivery provider. PHDL users can request articles via PubMed's Loansome Doc system. Partner Libraries fill the request and bill NPHCO through the Lamar Soutter Library at University of Massachusetts Medical School (UMMS). Partner Libraries also contribute to the program by providing instructor support or information support for reference-type questions originating from a PHD. This secondary service is more dependent on the degree to which the Partner Library conducts outreach throughout its state or community. List of Library Partners:

Partner Libraries Supporting
Public Health Department Information Access

University of Alaska Medical Library
University of Arkansas Medical Sciences Library
Poudre Valley Health System Library (Colorado)
University of Connecticut L.M. Stowe Library
University of Hawaii Medical Library
Ruth Lily Medical Library, Indiana University
University of Kentucky Medical Library
Maine Medical Center Library
Lamar Soutter Library at UMMS
Lemuel Shattuck Hospital Library (Boston, MA)
University of Maryland Health Sciences Library
New Hampshire DHHS library
New Mexico State University Library
Oregon Health Sciences University Library
Rhode Island Hospital/Lifespan
East Tennessee University Library
Eccles Health Sciences Library (Utah)

University of Vermont Dana Medical Library
West Virginia University Libraries
University of Washington Health Sciences Library
Ebling Health Sciences Library (Wisconsin)

4. *To continually refine a sustainable and cost efficient model of information access to a workforce that falls outside areas where information support is often readily available.*
- a) Major activities:
 - a. Develop a pricing model for Public Health Departments that is financially attainable while sustaining the current volume and depth of the shared electronic collection.
 - b. Enter into negotiations with vendors on pricing resources as close as possible to the previous year's cost.
 - b) Specific objectives:
 - a. Price resources for each department based on staffing.
 - b. Ensure cost-savings for Public Health Departments.
 - c. Convey importance of new market for vendors and value of collective model for Departments.
 - d. Review use of shared electronic collection.
 - c) Significant results:
 - a. 22 Departments are enlisted as either continuing access or as a new participant to the PHDL model.
 - b. Approximately 30 vendors work with NPHCO to offer information resources within a cost-effective framework.
 - d) Key outcomes:
 - a. Public Health Departments see the value of having access to shared information resources.
 - b. Continued access is assured for over 85% of currently participating departments and new departments beginning access to resources.
 - c. Information vendors see public health departments as a-valued users of evidence based resources.

B.4 WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?**B4. What opportunities for training and professional development did the project provide?**

Education is a critical component of the National Public Health Coordination Office (NPHCO) program. Training sessions are conducted at each new participating Departments. In August 2016 a two-day training session was held for Multnomah County Health Department (MCHD) in Colorado which had joined the program the previous year. A training agenda was developed based on previous training sessions held under the Public Health Information Access program and in consultation with the primary contact at MCHD. Topics covered included: *Using PubMed with MyNCBI, Ordering Documents, setting up Alerts, basic searching; Using other resources like STAT!Ref, EndNote, Cochrane Database, Global Health Database, Web-based resources*. Over the course of two and half-days 35 participants were trained. The NPHCO Manager and a librarian from the Lamar Soutter Library at the University of Massachusetts presided over the instruction. In February 2017 a follow-up training session was offered. This session was led by a librarian from the Oregon Health Sciences University and the newly hired Education Coordinator for NPHCO; approximately twenty participants attended the two half-day classes.

No current training programs are scheduled through April 2017. We have offered in-person visits to departments within the New England Region to allow for promoting the resources and getting users set up. These may occur but have yet to be scheduled.

Currently, an education program is in development that will offer brief web-based sessions for all public health department participants on a monthly basis. Each session will focus on a particular resource available through the PHDL.

C. COMPONENT PRODUCTS

C.1 PUBLICATIONS Not Applicable
C.2 WEBSITE(S) OR OTHER INTERNET SITE(S) Not Applicable
C.3 TECHNOLOGIES OR TECHNIQUES Nothing to report
C.4 INVENTIONS, PATENT APPLICATIONS, AND/OR LICENSES Not Applicable
C.5 OTHER PRODUCTS AND RESOURCE SHARING

Category	Explanation
Other	<p>The key component of the program is the Public Health Digital Library (PHDL), made available through Public Health Departments (PHD) intranets throughout participating Departments. The PHDL is a collection of electronic journals, books, and specialized databases uniquely curated for public health professionals in epidemiology, prevention, clinical care, laboratory practice, behavioral health, and other categories of health and science. In addition to over 230 electronic journals the PHDL consists of:</p> <ul style="list-style-type: none"> •STAT!Ref collection of 50+ e-books •CABI Global Health Database of some full-text material in global public health •Cochrane Database of Systematic Reviews •eCLIPSE collection of laboratory standards from CLSI <p>The digital library page is currently a static html page that calls up a vendor-residing resource through Internet Protocol (IP) authentication. Updates to collections and URLs are made at each department. A new approach to updating the PHDL pages is being worked on with programmers for the West Virginia Department of Health. The system would use a PHDL template that can be updated from a JSON file which can be made available through a server residing spreadsheet. This updating system is in development.</p>

D. COMPONENT PARTICIPANTS

Not Applicable

E. COMPONENT IMPACT**E.1 WHAT IS THE IMPACT ON THE DEVELOPMENT OF HUMAN RESOURCES?**

Not Applicable

E.2 WHAT IS THE IMPACT ON PHYSICAL, INSTITUTIONAL, OR INFORMATION RESOURCES THAT FORM INFRASTRUCTURE?

Not Applicable

E.3 WHAT IS THE IMPACT ON TECHNOLOGY TRANSFER?

In building a program for the public health workforce around the Public Health Digital Library, NPHCO has been able to demonstrate

- Public Health Departments value access to information resources through their financial support of licensed resources
- The need for training that accompanies PHDL is requested by departments on a repeated basis.
- Partner Libraries are critical in supporting public health information access through article delivery and providing training at public health departments.
- Information vendors are partners in providing access to public health information resources as they recognize the use of resources at state public health departments

E.4 WHAT DOLLAR AMOUNT OF THE AWARD'S BUDGET IS BEING SPENT IN FOREIGN COUNTRY(IES)?

Not Applicable

F. COMPONENT CHANGES**F.1 CHANGES IN APPROACH AND REASONS FOR CHANGE**

Not Applicable

F.2 ACTUAL OR ANTICIPATED CHALLENGES OR DELAYS AND ACTIONS OR PLANS TO RESOLVE THEM

Our current timeline is to gather commitments and collect funds in anticipation of future costs. Funds were requested in December and the need for lead time was anticipated. Currently a large number of Departments are in the process of making payment. Often payments can only be made after an agreement is signed by both the Public Health Departments and the National Public Health Coordination Office (with UMass Medical School acting as our agent). This process has taken more time than anticipated. To compensate for this lag in timely payments, we have begun negotiating and collecting quotes from vendors in advance of receiving all payments.

F.3 SIGNIFICANT CHANGES TO HUMAN SUBJECTS, VERTEBRATE ANIMALS, BIOHAZARDS, AND/OR SELECT AGENTS**F.3.a Human Subjects**

No Change

F.3.b Vertebrate Animals

No Change

F.3.c Biohazards

No Change

F.3.d Select Agents

No Change

G. COMPONENT SPECIAL REPORTING REQUIREMENTS

G.1 SPECIAL NOTICE OF AWARD TERMS AND FUNDING OPPORTUNITIES ANNOUNCEMENT REPORTING REQUIREMENTS Not Applicable
G.2 RESPONSIBLE CONDUCT OF RESEARCH Not Applicable
G.3 MENTOR'S REPORT OR SPONSOR COMMENTS Not Applicable
G.4 HUMAN SUBJECTS G.4.a Does the project involve human subjects? No
G.4.b Inclusion Enrollment Data Not Applicable
G.4.c ClinicalTrials.gov Not Applicable
G.5 HUMAN SUBJECTS EDUCATION REQUIREMENT Not Applicable
G.6 HUMAN EMBRYONIC STEM CELLS (HESCS) Does this project involve human embryonic stem cells (only hESC lines listed as approved in the NIH Registry may be used in NIH funded research)?
G.7 VERTEBRATE ANIMALS Not Applicable
G.8 PROJECT/PERFORMANCE SITES Not Applicable
G.9 FOREIGN COMPONENT Not Applicable
G.10 ESTIMATED UNOBLIGATED BALANCE Not Applicable
G.11 PROGRAM INCOME Not Applicable
G.12 F&A COSTS Not Applicable

A. COMPONENT COVER PAGE

Project Title: National Network of Libraries of Medicine New England (Region 8)

Component Project Lead Information:

Piorun, Mary Elizabeth

B. COMPONENT ACCOMPLISHMENTS**B.1 WHAT ARE THE MAJOR GOALS OF THE PROJECT?**

1. The University of Massachusetts Medical School, Lamar Soutter Library will commit staff and space to administer the NN/LM NER program for 2016-2021.
2. NNLM NER will develop a regional network of libraries and other institutions to support Regional and National goals of the National Library of Medicine.
3. NNLM NER will provide an organizational and advisory structure to form collaborations and partnerships across the region.
4. NNLM NER will utilize multiple forms of communications about NLM and NER activities, programs, and services.
5. NNLM NER will evaluate and report on NER activities, programs, and services.
6. NNLM NER will implement the Network National Emergency Preparedness Response Plan.

B.1.a Have the major goals changed since the initial competing award or previous report?

No

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?

File uploaded: B2_Accomplishments_Admin.pdf

B.3 COMPETITIVE REVISIONS/ADMINISTRATIVE SUPPLEMENTS

Not Applicable

B.4 WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?

NOTHING TO REPORT

B.5 HOW HAVE THE RESULTS BEEN DISSEMINATED TO COMMUNITIES OF INTEREST?

NOTHING TO REPORT

B.6 WHAT DO YOU PLAN TO DO DURING THE NEXT REPORTING PERIOD TO ACCOMPLISH THE GOALS?

Aim 1: The University of Massachusetts Medical School, Lamar Soutter Library will commit staff and space to administer the NN/LM NER program for 2016-2021.

- NER will have one open Education & Outreach coordinator position. NER will work with UMass Medical Human Resources Office to post, advertise and process applicants to fill this position.
- NER will work with UMass Medical School systems for guidance in fiscal responsibility and compliance.

Aim 2: NNLM NER will develop a regional network of libraries and other institutions to support Regional and National goals of the National Library of Medicine.

- NER will conduct a membership drive in Year 2 to incorporate new regional partners into the Network by targeting focused outreach collaborators and the libraries within their corresponding designated geographical area.
- The Five-year target is to grow membership by 151. Year one produced 50 new members. The target for Year 2 is to introduce 30 new members to NLM resources and NER Network.
- NER will collaborate with other NNLM Regions, National Web Services Office (NWSO), and the National DOCLINE Coordination Office (NDCO) to maintain the NNLM Members Directory to ensure accuracy as it adds new members.

Aim 3: NNLM NER will provide an organizational and advisory structure to form collaborations and partnerships across the region.

- NER will hold at least one event for each of the partner groups; Funded Partners; Regional Advisory Group, Hospital Library Advisory Group, Community of Interest Leaders, and Data Advisory Board. All groups will advise the NER on how best to meet its mission and goals of increasing access to biomedical health information

Aim 4: NNLM NER will utilize multiple forms of communications about NLM and NER activities, programs, and services.

- NER will increase the number of people reached by its newsletter by seeking new individuals to sign up. NER will increase the number of follower on social media – Twitter, Facebook – and increase the number of posts on each.
- NER will work with National Web Services Office to maintain and improve the new website and participate in other NWSO projects.
- NER will reach out to users through video, radio, and community and public television when opportunities arise. Links to these recorded messages will be featured on the website and broadcast locally.
- NER will continue site visits to regional members and other organizations. NER staff will obtain feedback on need and preferences from attendees in order to improve access to biomedical and health information and inform attendees about NER activities. In-person contact with Network Members fosters participation and collaboration and enables NER to respond more quickly to Member questions and concerns.

Aim 5: NNLM NER will evaluate and report on NER activities, programs, and services.

- NER will comply with the activity-based, quarterly, and annual reporting requirements as set forth by the National Network Office (NNO).
- NER staff will continue to meet regularly with the National Network Coordination Office and the National Network Steering Committee.

- NER distribute important information about local and national policies, services, and resources via multiple modes of communication.

Aim 6: NNLM NER will implement the Network National Emergency Preparedness Response Plan.

- NER will continue to serve as backup for NLM Customer Service personnel in the event the customer service capacity is severely or totally affected.

- NER will partner with organizations to provide funding or training opportunities focused on Emergency Preparedness.

B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?

1. *The University of Massachusetts Medical School, Lamar Soutter Library will commit staff and space to administer the NNLM NER program for 2016-2021*
 - a) Major activities:
 - a. **Office Space:** Working with the Office of Facilities Management, it was confirmed that NER would remain in its current space and have access to institutional facilities as needed for the duration of the grant (2016-2021).
 - b. **Staffing:** Working with Human Resources, NER advertised, interviewed, and hired Education and Outreach Coordinators (3FTE) and a Technology and Communications Coordinator (.5 FTE).
 - c. **Program Leadership:** A new Principle Investigator (Mary Piorun, PhD, previously served as Associate Director 2012-2016) was appointed in August 2016; Elaine Martin, DA retired in September 2016. In January 2017 Martha Meacham was appointed Acting Associate Director.
 - b) Specific objectives:
 - a. **Office Space:** Ensure the NER staff have adequate work space and tools to perform assigned tasks; Ensure that there is dedicated meeting space for NER staff meetings; Confirm there is a classroom space to host in person meetings.
 - b. **Staffing:** Hire qualified staff; Ensure the smooth transition of staff and uninterrupted continuation of work.
 - c. **Program Leadership:** Communicate program aims and goals to new staff; Ensure all critical deadlines are met; Be an attentive steward of grant funds; Ensure regular communication is maintained with the National Network Coordinating Office.
 - c) Significant results:
 - a. **Staffing:** New Staff Introduced to Network Members; Success and seamless transition of staffing.
 - b. **Program Leadership:** Newly appointed Principle Investigator and Acting Associate Director, Martha Meacham are working as a team and together leading the NER staff in meeting program goals.
 - d) Key outcomes:
 - a. **Staffing:** All staff successfully on boarded. Staff are developing programs and relationships, both regionally and nationally, in order to meet the aims of the NNLM NER.
 - b. **Program Leadership:** Year one targets have been met. NNLM NER office working efficiently and effectively.
2. *NNLM NER will develop a regional network of libraries and other institutions to support Regional and National goals of the National Library of Medicine*
 - a) Major activities:
 - a. Actively recruited new organizations to join as members and be included in the Membership database. Regularly attended National Network Steering Committee and National Network Coordinating office meeting to be better able to inform and serve members.
 - b) Specific objectives:
 - a. Increase membership, specifically reaching out to public libraries and community based organizations.
 - c) Significant results:
 - a. Added 50 new members to the membership database reflecting a wide variety of community organizations, libraries, clinics, and schools. The five-year goal is to grow membership by a total of 151; Year 1 accomplishments keep membership growth on target.
 - d) Key outcomes:
 - a. Strong relationships with existing and new members were built and maintained. Target increase of membership was successful.
3. *NLM NER will provide an organizational and advisory structure to form collaborations and partnerships across the region*

- a) Major activities:
 - a. **Data Program:** Established data advisory board structure and subcommittees
 - b. **Funded Partner Meeting:** Held Funded Partners Meeting in which awardees were able to showcase the work they did and communicate how the funding made an impact.
 - c. **Regional Advisory Meeting:** Held a meeting to bring together the leaders of regional partner libraries and other organizations reflecting all stakeholder groups. This meeting offered the opportunity to gain insight and feedback into the needs and desires from across the region and from different types of organizations.
 - d. **Hospital Librarians (HLAG):** Held a webinar inviting all hospital librarians in the region to gain insight and understanding of the unique challenges faced by this group in an effort to better meet their needs.
 - e. **Communities of Interest:** Three communities of interest were established. Regional leadership was implemented. Programing and information dissemination was planned and implemented for each of the COIs.
- b) Specific objectives:
 - a. **Data Program:** Advise on regional needs and assist in the strategic planning of the e-Science program.
 - b. **Funded Partner Meeting:** Discuss ongoing partnerships and options to continue the work after the funding ends.
 - c. **Regional Advisory Meeting:** Provide guidance in developing and evaluating programs and services that meet the needs of larger libraries in the region.
 - d. **Hospital Libraries (HLAG):** Working with NER staff, the group proposes pilot projects, programs, and knowledge management initiatives. HLAG members meet in-person once a year and as needed by phone at other times.
 - e. **Communities of Interest:** COI leaders help plan webinars and workshops for the Membership and take an active role in communicating with NER Members.
- c) Significant results:
 - a. **Data Program:** Held two in-person meetings for Data Advisory Board members and ten virtual meetings; Established Advisory Board and Subcommittees for regional data initiatives; Established monthly virtual meetings with the Data Advisory Board; Developed Open Science Framework Project site for the data program, component groups and supporting materials to be stored and shared.
 - b. **Funded Partner Meeting:** Held meeting for funded partners with 30 attendees who gave updates on their projects and provided feedback about the award process. Feedback will inform the next round of awards.
 - c. **Regional Advisory Meeting:** A meeting was held with 55 attendees who reflected the make-up, population, and membership of NER. Attendees provided insight and feedback for future programing and direction.
 - d. **Hospital Libraries:** Hospital librarians provided valuable information and expressed needs for future programs and information. NER worked with regional medical library associations to establish greater support for this group.
 - e. **Communities of Interest:** 5 programs covering the three different COIs were planned and executed. COI leaders maintained communication and information sharing with individuals throughout the region.
- d) Key outcomes:
 - a. **Data Program:** The advisory board provided direction and information.
 - b. **Funded Partner Meeting:** Funding partners provided feedback used to inform the RFP and award process during Year 2.
 - c. **Regional Advisory Meeting:** Partner libraries provided feedback throughout the year and participated in facilitated feedback sessions with NER staff. This information informed future directions for NER.
 - d. **Hospital Libraries:** Hospital librarians provided valuable information and expressed needs for future programs and information. NER worked with regional medical library associations to establish greater support for this group.
 - e. **Communities of Interest:** There is strong interest in and participation with the Communities. NER membership and librarians are engaged and committed to the topics.

4. NNLM NER will utilize multiple forms of communications about NLM and NER activities, programs, and services

- a) Major activities:
 - a. **Website:** Participated on the Website Redesign Working Group. Participated in the bi-weekly communications committee meetings
 - b. **Electronic Communication:** NNLM NER used social media (Twitter, Facebook, Instagram) and other long form communication methods (blog, Newsletter) to regularly communicate with people.
 - c. **In-Person Communication:** Regularly made visits to member libraries and other organizations.
- b) Specific objectives:
 - a. **Website:** NER maintains a web presence in collaboration with the National Web Services Office (NWSO)
 - b. **Electronic Communication:** NER utilizes the following electronic modes of communication: NER weekly update, NER blog, annual update, Facebook, and Twitter.
 - c. **In-Person Communication:** In-person communication includes attendance at site visits, regional meetings and exhibits. All NER staff obtains feedback on need and preferences from attendees in order to improve access to biomedical and health information and inform attendees about NER activities.
- c) Significant results:
 - a. **Website:** Successful migration to new website. The NNLM NER website had a total of 10,151 sessions/19,125 page views, with 6,916 unique users.
 - b. **Electronic Communication:**

Communication Format	Frequency	Format	Audience	Content	YR1 Reach
NER Weekly Update	Weekly	Email	All members	Brief descriptions of what has been posted to Blog over the past week.	There were 42 weekly newsletter updates sent, with a reach (total number sent) of 12,798.
NER Blog	Just in Time	Web/ Email	All members	News from NLM, funding opportunities, other NIH News	4,689 sessions, 7,274 page views, and 3,288 unique users.
Online Annual Update	October	Virtual	All members	Review of past NER activities and announcements of future programming	73 people attended the webinar for the NER Annual update
Facebook	Just in Time	Web	Followers	Exhibiting, news, updates, funding	NER had 87 Facebook posts that had a reach of 21,422 and an interaction count of 365.
Twitter	Just in Time	Web	Followers	Exhibiting, news, updates, funding	NER sent out 129 tweets with 102,843 impressions, 5,680 profile visits, 159 mentions.

- c. **In-Person Communication:** NER staff conducted 27 site visits, reaching 159 people throughout all New England states. Staff gave updates at regional meetings and events.

Title	No. of Participants
NER Update for NAHSL Board - Fall	22
NER Update for Women's Health Working Group	12
NER Update for AHEC Advisory Board	12
NER Funding Program update	45

NER Update for CAHSL Board	15
NER Annual Regional update	73
NER Update for MAHSLIN Board	8
NER Update for NAHSL Board - Spring	20
Total	207

d) Key outcomes:

- a. **Website:** NER website migration was successful; Network Members have commented on the new look and appreciate the ease of navigation.
- b. **Electronic Communication:** The use of various forms of electronic communication has been effective. There has been increased engagement across all platforms and there is a steady increase in members subscribing to receive updates.
- c. **In-Person Communication:** Held regular meetings with and conducted site visits to libraries across New England to gather information about future needs and programming. Staff attended regional librarian conferences to network and gather information and feedback about needs, trends, and changing work.

5. *Evaluate and report on NER activities, programs, and services*

a) Major activities:

- a. **Reporting:** File activity-based, quarterly, and annual reporting requirements as set forth by the National Network Office (NNO).
- b. **NEO:** Worked with the National Evaluation Office to investigate and analyze regional trends, suggest areas of improvement, identify gaps in service, and recommend new populations to be targeted or services to be offered
- c. **NNSC:** Attended regularly scheduled National Network Steering Committee (NNSC) meetings.

b) Specific objectives:

- a. **Reporting:** Meet the activity-based, quarterly, and annual reporting requirements as set forth by the National Network Office (NNO).
- b. **NEO:** Work with the National Evaluation Office.
- c. **NNSC:** Report findings to the National Network Steering Committee (NNSC) at scheduled meetings.

c) Significant results:

- a. **Reporting:** Devised internal tracking system to meet the activity-based, quarterly, and annual reporting requirements as set forth by the National Network Office (NNO).
- b. **NEO:** Worked with the National Evaluation Office to investigate and analyze regional trends, suggest areas of improvement, identify gaps in service, and recommend new populations to be targeted or services to be offered
- c. **NNSC:** Meet regularly with the NNSC and provided information to inform and facilitate decision making.

d) Key outcomes:

- a. All reporting, evaluation, and meeting requirements have been successful fulfilled.

6. *Implement the Network National Emergency Preparedness Response Plan*

a) Major Activities

- a. Reviewed procedures in preparation for hurricane Matthew.
- b. Funding provided in support of emergency management initiatives.

b) Specific Objectives

- a. Serve as backup for NLM Customer Service personnel in the event the customer service capacity is severely or totally affected.
- b. Promotes emergency preparedness planning and training.

c) Significant Results

- a. NER maintained its commitment to serve as backup for NLM Customer Service personnel.

- b. Worked with City of Nashua, NH Office of Emergency management on funding which allowed training of emergency responders and librarians to use the Nashua library as a hub during an emergency or Natural disaster.
- d) Key outcomes
 - a. Not applicable at this time.

C. COMPONENT PRODUCTS**C.1 PUBLICATIONS**

Not Applicable

C.2 WEBSITE(S) OR OTHER INTERNET SITE(S)

Not Applicable

C.3 TECHNOLOGIES OR TECHNIQUES

Nothing to report

C.4 INVENTIONS, PATENT APPLICATIONS, AND/OR LICENSES

Not Applicable

C.5 OTHER PRODUCTS AND RESOURCE SHARING

Nothing to report

D. COMPONENT PARTICIPANTS

Not Applicable

E. COMPONENT IMPACT

E.1 WHAT IS THE IMPACT ON THE DEVELOPMENT OF HUMAN RESOURCES?

Not Applicable

E.2 WHAT IS THE IMPACT ON PHYSICAL, INSTITUTIONAL, OR INFORMATION RESOURCES THAT FORM INFRASTRUCTURE?

Not Applicable

E.3 WHAT IS THE IMPACT ON TECHNOLOGY TRANSFER?

NOTHING TO REPORT

E.4 WHAT DOLLAR AMOUNT OF THE AWARD'S BUDGET IS BEING SPENT IN FOREIGN COUNTRY(IES)?

Not Applicable

F. COMPONENT CHANGES**F.1 CHANGES IN APPROACH AND REASONS FOR CHANGE**

Not Applicable

F.2 ACTUAL OR ANTICIPATED CHALLENGES OR DELAYS AND ACTIONS OR PLANS TO RESOLVE THEM

NOTHING TO REPORT

F.3 SIGNIFICANT CHANGES TO HUMAN SUBJECTS, VERTEBRATE ANIMALS, BIOHAZARDS, AND/OR SELECT AGENTS**F.3.a Human Subjects**

No Change

F.3.b Vertebrate Animals

No Change

F.3.c Biohazards

No Change

F.3.d Select Agents

No Change

G. COMPONENT SPECIAL REPORTING REQUIREMENTS

G.1 SPECIAL NOTICE OF AWARD TERMS AND FUNDING OPPORTUNITIES ANNOUNCEMENT REPORTING REQUIREMENTS Not Applicable
G.2 RESPONSIBLE CONDUCT OF RESEARCH Not Applicable
G.3 MENTOR'S REPORT OR SPONSOR COMMENTS Not Applicable
G.4 HUMAN SUBJECTS G.4.a Does the project involve human subjects? No
G.4.b Inclusion Enrollment Data Not Applicable
G.4.c ClinicalTrials.gov Not Applicable
G.5 HUMAN SUBJECTS EDUCATION REQUIREMENT Not Applicable
G.6 HUMAN EMBRYONIC STEM CELLS (HESCS) Does this project involve human embryonic stem cells (only hESC lines listed as approved in the NIH Registry may be used in NIH funded research)? No
G.7 VERTEBRATE ANIMALS Not Applicable
G.8 PROJECT/PERFORMANCE SITES Not Applicable
G.9 FOREIGN COMPONENT Not Applicable
G.10 ESTIMATED UNOBLIGATED BALANCE Not Applicable
G.11 PROGRAM INCOME Not Applicable
G.12 F&A COSTS Not Applicable

--