

**NATIONAL NETWORK OF LIBRARIES  
OF MEDICINE**

**MidContinental Region**

**Outreach Narrative**

**Option Year 3**

**May 1, 2014 – April 30, 2015**

**Revised April 4, 2014**

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## **Outreach Programs to Health Professionals and Public Health Workers**

The National Library of Medicine's core mission includes outreach programs "to ensure that all people in the U.S. have a known, accessible, understandable, and affordable source of current, authoritative health information."<sup>1</sup> The NN/LM MCR will advance this mission by building on and enhancing outreach efforts to improve access to health information.

**Goal: Develop collaborations among Network members and other organizations to improve access to and sharing of biomedical information resources throughout the nation.**

**Outcome: Network members and other organizations are better able to support access to health information resources.**

### **Approach:**

**Develop programs that reach practicing health professionals by promoting health information literacy resources**

### **RATIONALE:**

The NN/LM MCR has developed a relationship with the Health Care Education Association (HCEA), with the Colorado coordinator monitoring the association's three listservs and the Utah coordinator acting as listserv administrator. The HCEA is a multi-disciplinary professional organization of health educators that provides relevant resources, reference tools, and information on health care education for patients and health care providers. The listservs provide a perfect venue to promote health information literacy resources for healthcare staff and patients nationwide. The NN/LM MCR monitors each listserv and responds to questions by providing health information resources when appropriate. In Option Year 2, the Colorado coordinator provided twenty-eight listserv responses. Feedback for the responses included:

"Thank you so very much for your timely response!  
This is exactly what we were looking for!"

"This is very helpful, thank you so much for taking the time to put this together!"

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<sup>1</sup> "Charting a course for the 21stCentury—NLM's Long Range Plan 2006-2016." National Library of Medicine. 2006. Web. 03 Jan 2014.  
<[http://www.nlm.nih.gov/pubs/plan/lrp06/report/LRP\\_Goal2.html](http://www.nlm.nih.gov/pubs/plan/lrp06/report/LRP_Goal2.html)>.

"I appreciate the resources you sent on CCHD. There were a couple of new resources I hadn't found yet and I do appreciate your time to look and reply!"

"Thank you!!!! This is very helpful."

Consistent contact with members through the listserv led to an invitation for the Colorado coordinator to speak at the HCEA 2013 conference and to serve on their Education Committee beginning in January 2014.

**METHDOLOGY:**

The NN/LM MCR will continue to support the health information needs of the HCEA by acting as listserv administrator, monitoring the listservs, and posting answers to health information related queries. The Colorado coordinator will also serve on the HCEA's Education Committee.

**EVALUATION:**

- 50% of responses to posts on the HCEA listservs are judged useful by recipients.

**Work with the NN/LM MCR Under-Connected Community Based Organization Participants on using iPad Apps**

**RATIONALE:**

In October of 2013, Apple, Inc. announced it had added the 1 millionth app to their iTunes Store. This plethora of options can make selection decisions very difficult and time consuming. The NN/LM MCR views this as an opportunity to continue our partnership with the two cohorts from Option Years 1 and 2 participating in the Under-Connected Community Based Organization (CBO) project by engaging them to explore apps they think are useful and reviewing them. The prior project laid the foundation with the provision to outreach staff from six CBOs with an Apple iPad along with training by NN/LM MCR staff on the device and on accessing resources and services from the National Library of Medicine. With one CBO having closed its doors for business, the NN/LM MCR will work with the remaining five CBOs by enabling them to purchase iPad apps they feel would benefit their outreach program and the communities they serve. The MCR will then report their findings to the region to benefit other CBOs.

**METHODOLOGY:**

The NN/LM MCR will provide training on: how to access the iTunes store and create an account, search for iPad Apps, install apps, access resources that assist in identifying quality apps, and the use of the NN/LM MCR quarterly reporting system. NN/LM MCR coordinators will share the results of the CBO experiences with other CBOs and Network members through appropriate communication channels.

**EVALUATION:**

- Each participating community based organization will report on an evaluation, use, and benefit of at least four apps (one per quarter) they purchased on iTunes.

**Develop programs  
that reach  
community colleges**

**RATIONALE:**

Community colleges constitute the largest part of the nation's higher education system, with more than 6 million enrollees.<sup>2</sup> These institutions support workforce development programs for nursing, allied health, the sciences, and health IT certificates and degrees. In fact, allied health - encompassing over 80 different professions - represents approximately 60% of all health care professionals.<sup>3</sup>

**METHODOLOGY:**

Building on contacts made with community college library staff to promote MedlinePlus Connect in Option Year 1, MCR coordinators will work with staff to raise awareness of the NLM tools and resources supporting the institution's health and science curriculums, including health IT programs. The NN/LM MCR will offer two trainings in the region, where the audience is predominantly community college library staff, on NLM resources including MedlinePlus Connect. They will also pursue opportunities to exhibit at community college conferences.

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<sup>2</sup> "Building American Skills through Community Colleges." The White House Blog. Web 06 Jan 14. <<http://www.whitehouse.gov/issues/education/higher-education/building-american-skills-through-community-colleges>>

<sup>3</sup> "What is allied health?" Health Professions Network. Web. 06 Jan 14. <[http://www.healthpronet.org/docs/1342\\_AH\\_BrochUpdate\\_06.pdf](http://www.healthpronet.org/docs/1342_AH_BrochUpdate_06.pdf)>

**EVALUATION:**

- 90% of participants evaluating trainings indicate that the class met learning objectives.
- Coordinators will exhibit, depending on scheduling and cost, at community college conferences.

**Goal: Develop, promote, and improve electronic access to health information by Network members, health professionals, and organizations providing health information to the public.**

**Outcome: Network members and other organizations are better able to support access to health information resources.**

**Approach:**

**Increase awareness of resources and access to information services for unaffiliated health professionals and public health workforce**

**RATIONALE:**

For nearly a decade, the MCR has developed synchronous and asynchronous training sessions on health information resources. A popular series is the nearly monthly *Spotlight! on National Library of Medicine Resources*. These sessions - presented live, then archived for future viewing - are generally well attended by health sciences library staff, but the content presented would also benefit health professionals and public health workers. In the contract's Base Year, a promotional effort to expand *Spotlight!* attendance to health professionals and public health workers (including community health workers) was launched. In Option Year 1, the MCR began tracking synchronous attendance of health professionals and public health workers. The content included multiple language patient education, LGBT resources, electronic health records/MedlinePlus Connect, evidence-based nutrition, genomics, public health, and obesity. The table below illustrates the increase in attendance from Option Year 1 through Option Year 2 (May 2012-December 2013).

Audience	Option Year 1	Option Year 2 (partial)	Increase
Health Professionals	11	32	191%
Public Health	25	95	280%

In addition to offering training sessions, the MCR will also promote ways unaffiliated health professionals and public health workers can access medical literature. Medical libraries have a long history of providing information services and resources to their institution's affiliate staff, but the majority of U.S. health professionals and public health workers are unaffiliated, and do not have cost effective and timely access to health information. Loansome Doc, a service supported by NLM, connects individuals to biomedical literature through a system of participating medical libraries that serve the unaffiliated. Currently, there are 26 libraries in the MCR participating in Loansome Doc, and coordinators would like to see an increase in participation.

**METHODOLOGY:**

Coordinators will promote *Spotlight!* sessions to targeted groups through social media, listserv and blog postings, and web advertisements. Participation will be tracked via an online participation form. Coordinators will encourage Network members to participate as a Loansome Doc provider, and promote Loansome Doc services at health professional and public health conferences when exhibiting.

**EVALUATION:**

- Offer ten *Spotlight!* sessions.
- 90% of *Spotlight!* participants responding to a poll indicate that the class met learning objectives.
- At least 50% of the synchronous or asynchronous *Spotlight!* sessions are attended by at least one participant from each of the targeted groups.
- Two additional Network members will provide Loansome Doc services.

**Inform those who work with limited English proficiency (LEP) populations about multiple language resources**

**RATIONALE:**

In the contract's Base Year, coordinators developed relationships with State Refugee Coordinators to promote multi-language and culturally competent consumer and patient education resources. In Option Year 1 and into Option Year 2, the Colorado/Health Information Literacy coordinator partnered with Health and Human Services (HHS) Region VIII's Office for Civil Rights to provide training

to the region's state hospital associations. This training was in response to HHS's Effective Communication in Hospitals Initiative for persons with limited English proficiency (LEP), including those who are deaf or hard of hearing. Attendees to the sessions included physicians, nurses, and hospital administrators. The sessions were well received and feedback indicated the health information resources would be very useful for patient education. The MCR, while primarily English speaking, does have a strong LEP representation. The top ten languages, other than English spoken in the region include: Spanish, German, Vietnamese, French, Chinese, Korean, Arabic, Algonquian, Navajo, and Portuguese.<sup>4</sup>

#### **METHODOLOGY:**

In Option Year 3, coordinators will expand promotion of LEP health information resources to those who work with LEP populations, including community health centers, community based organizations, health ministries, public health departments, allied health, physicians, nurses, and dental health.

To increase awareness of LEP resources the NN/LM MCR coordinators will:

- Present at least one webinar on multiple language resources and/or cultural diversity.
- Have a presence at conferences and meetings for rural, public health, and minority populations and promote multiple language resources.
- Write, distribute and publish articles for agencies and health professionals working with underserved populations.
- Post to appropriate social media sites, listservs, and blogs.

Resources to be promoted include:

- MedlinePlus  
(<http://www.nlm.nih.gov/medlineplus/>),

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<sup>4</sup> Modern Language Association Language Map. Data extraction: American Community Survey 2010. Web 08 Jan 14. <[http://www.mla.org/map\\_data](http://www.mla.org/map_data)>



- RHIN: Refugee Health Information Network (<http://rhin.org/>),
- EthnoMed (<https://ethnomed.org/>),
- Healthy Roads Media, (<http://www.healthyroadsmedia.org/>)
- SPIRAL: Selected Patient Information Resources in Asian Languages, (<http://spiral.tufts.edu/>).

**EVALUATION:**

- Agencies working with limited English proficiency (LEP) populations report to NN/LM MCR coordinators that resources presented were useful.
- 90% of participants attending multiple language resource training respond on a class evaluation that the class met learning objectives.
- At least four articles about access to health information resources will be written, distributed, and published within each state.

## Outreach Programs to Consumers

The NN/LM MCR has demonstrated the value collaboration plays in outreach through the use of its distributed model. State coordinators have built a strong foundation for outreach programs to consumers by connecting with organizations that serve consumers. State coordinators are members of their state library association, their state or local health sciences library consortia, and they are connected to the workforce at local public and community health organizations. Working with intermediary groups, which already have trusted relationships with consumers, allows coordinators to integrate health information into programs that have been successful in reaching the consumer. Groups, such as libraries, community and faith based organizations, and governmental agencies are a major focus for state coordinators.

**Goal: Promote awareness of, access to, and use of biomedical information resources for health professionals and the public, with a particular emphasis on contributing to the Healthy People 2020 goal of eliminating health disparities.**

**Outcome: Librarians, health care providers, and consumers in the MCR are more aware of health information resources, services, and programs.**

**Approach:**

**Improve access to electronic consumer health information**

**RATIONALE:**

Health information literacy advances the identification of and access to quality health information resources; the ability to evaluate, analyze, and understand the content; and the ability to use health information to make informed decisions.

The NN/LM MCR has been addressing health information literacy in a number of ways. Coordinators located in Nebraska serve on the steering committee for Health Literacy Nebraska. This is an interdisciplinary organization involving members from several different institutions. Health Literacy Nebraska has secured funding, maintains a website, hosted a summit for health professionals that included programming on all facets of health information literacy, including two sections where participants from libraries and community based organizations shared activities shown to improve health information literacy in their communities. The Colorado coordinator has worked with Health and Human Services Region VIII and the Office

of Civil Rights to provide training for several regional hospital associations' on patient education resources, and on a national level works with the Health Care Education Association to raise awareness of consumer health and patient education resources.

State Library partnerships in the past year have focused on the Affordable Care Act (ACA). MCR coordinators worked with the Utah and Colorado State Libraries to host webinars for public libraries. The Wyoming coordinator talked about resources on a panel at the Wyoming State Library Association Conference. **The Kansas coordinator presented on ACA at the Kansas Library Association conference. The coordinators in Nebraska shared ACA resources with the Director of the Omaha Public Library. The Missouri coordinator has joined a group sponsored by the Missouri Foundation for health to support implementation of ACA, but no activities have been conducted.**

Coordinators also worked with K-12 as part of the NLM initiative for education outreach to this population. Coordinators presented to librarians or staff at the Omaha Public Schools, Denver Green School, Montrose Regional Library STEM Reading Program, Fireridge Elementary School, Creighton University K-12 Education program students, and offered a *Spotlight!* session on NLM K-12 resources. Exhibit booths were staffed at conferences for Nebraska School Nurses, Bi-National Health Week Children's Event, Technology and Education Conference, both the Wyoming and Nebraska chapters of the Association for Health, Physical Education, Recreation and Dance, National Rural Education, and the Utah Educator Association. In addition to classes and exhibits, the MCR also offered an award for an outstanding public library and K-12 library partnership. This award was publicized at exhibits and distributed on the appropriate communication channels.

#### **METHODOLOGY:**

The MCR will promote the use of NLM resources that support K-12 school health curriculum by exhibiting at conferences, such as: school library and media conferences; state library

associations; school nurse conferences; and school subject conferences. MCR coordinators will also submit proposals to present at identified conferences. ~~The MCR will again offer an award for outstanding public library and K-12 partnerships involving health information, which can serve as a model for similar partnerships in the region.~~

**The MCR will offer four subcontracts of \$1,500 in Option Year 3. The awards will support new projects or enhance existing collaborative projects between public, community college, or academic health sciences libraries and K-12 entities (e.g., school library, school nurse, health/science teachers) involving health and science information that can serve as a model for other partnerships.**

**Program Goals:**

- 1. Promote health and science information resources to the K-12 community.**
- 2. Develop collaborations among network members and other organizations to improve access to and sharing of health and science information resources.**
- 3. Promote outreach by Network members to share their expertise and resources.**
- 4. Promote awareness and use of products and services of the National Library of Medicine and the NN/LM.**

**Examples of partnerships can include, but are not limited to:**

- 1. Partnerships to provide access to health information to support health and science curriculum.**
- 2. Partnerships to promote healthy lifestyle choices.**
- 3. Partnerships to encourage health and science careers.**
- 4. Partnerships to conduct innovative health information outreach programs.**
- 5. Partnerships to benefit the overall community's access to health information.**
- 6. Partnerships to improve access to health information for underserved/vulnerable populations.**

Additionally, MCR coordinators will continue to partner with state libraries to increase awareness and access to health information, such as resources for the uninsured on the Affordable Care Act.

Coordinators located in Nebraska will continue to support the work of Health Literacy Nebraska by sitting on the Steering Committee, participating in exhibits and conferences, and presenting training on NLM resources at quarterly webinars, as well as providing the software and technical support for said webinars.

**EVALUATION:**

- The MCR will have an exhibit presence at four events per state, including the state library association.
- Six of six state libraries responding to a questionnaire rate their collaboration with the MCR in supporting access to health information resources positively or very positively.

**Goal: Develop, promote, and improve electronic access to health information by Network members, health professionals, and organizations providing health information to the public.**

**Outcome: Health professionals, librarians, students, and members of other organizations have increased skills to use resources for health information.**

**Approach:**

**Develop programs that reach health professionals, librarians, and members of the public by promoting health information literacy resources**

**RATIONALE:**

The NN/LM MCR has identified health information literacy as an issue of significant concern and an area where librarians can have an impact on both health professionals and health consumers. Coordinators will support librarians to become health information literacy change agents in their institutions with trainings, bibliographies, and presentations that highlight the issues of health information literacy.

In Option Years 1 and 2, coordinators contacted state refugee health workers and community based organizations that work with refugees to promote multi-lingual health resources such as MedlinePlus and the Refugee Health Information Network. Coordinators have provided resources

and training to the Larimer County Dept. of Health (CO), 2040 Partners in Health (CO), Colorado Refugee Wellness Center, and the Omaha Refugee Task Force (NE).

The Bringing Health Information to the Community (BHIC) blog is a national resource that highlights health information resources, professional development opportunities, and funding opportunities for community based organizations – especially those working in underserved communities. The blog is maintained and managed through the NN/LM MCR. Coordinators from the NN/LM MAR, PNR, PSR, and SCR are also contributors. Through this collaboration, BHIC draws from a wider knowledge base resulting in greater number of resources and reaches a broader audience. The readership of BHIC is comprised of mostly librarians and faculty members in an academic setting (40%), followed by those working for a government agency (18%), and health professionals working in a hospital or clinic (14%). The NN/LM MCR recognizes that in order for BHIC to reach more of its intended audiences, tap into a wider knowledge base, and attain a closer national focus, more contributors from each NN/LM region need to be recruited.

#### **METHODOLOGY:**

Coordinators will work with public librarians who are an excellent conduit for transferring health information to community members. Coordinators in all states will seek opportunities to raise awareness of NLM consumer health resources by offering online training sessions for public library staff on health information literacy, emergency preparedness, and other topics identified as relevant to participants.

In order to broaden outreach to a wider audience beyond the refugee populations, coordinators will identify local public health agencies and other community based organizations working with limited English proficient (LEP) populations and serving multiple ethnic and refugee populations. Coordinators will offer training on LEP resources as well as encourage developers of multiple language materials to contribute items to open source resources. LEP resources will also continue to be publicized on the BHIC blog.

The BHIC blog will continue to be administered through the MCR with contributors from other NN/LM regions, with the intent to recruit a contributor from each NN/LM region. The Health Information Literacy coordinator will continue to explore social media and other communication options for promoting the blog and following the dissemination of resources by readers.

Coordinators will also offer health information literacy consultations. These consultations will cover a wide variety of topics, with a focus on programming, classes, and resources. The key focus for consultations will be with public librarians. The knowledge they gain will be used to improve the public library's health literacy offerings to the general public.

**EVALUATION:**

- 80% of at least ten health information literacy consultees indicate that the consult was beneficial.
- 90% of participants responding indicate that the class met learning objectives.
- Clicks on BHIC links will increase by 10%.
- Organizations working with limited English proficiency (LEP) populations report to NN/LM MCR coordinators that NLM resources were useful.

## Exhibits and Presentations at Meetings

**Goal:** Develop collaborations among Network members and other organizations to improve access to and sharing of biomedical information resources throughout the nation.

**Outcome:** Librarians, health care providers, and consumers in the MCR are more aware of health information resources, services, and programs.

**Approach:**

**Exhibit and/or make presentations to promote NN/LM and NLM programs and services**

**RATIONALE:**

The NN/LM MCR exhibiting program is an important outreach activity reaching Network members, health professionals, researchers, the public health workforce, librarians, and consumers. Conferences are a “marketplace” where coordinators can share the wealth of information available from the National Library of Medicine, as well as the services provided by the National Network of Libraries of Medicine. Exhibits and presentations at meetings additionally provide an opportunity to receive feedback on how the products and services of the National Library of Medicine continue to support the health information needs of end users. It also affords the coordinators a personal contact with constituency in the region, as opposed to an e-mail or a phone call.

In Option Year 1, coordinators exhibited at 32 events, reaching over 6,000 attendees. Exhibit venues included conferences for public health professionals, community college and K-12 science and health teachers, state and regional librarians, family physicians, school nurses, and school librarians.

The NN/LM MCR also welcomes the opportunity to present for national organizations, and will exhibit at national meetings as determined by NLM. Serving in this capacity allows coordinators to observe the trends happening within the organizations. This not only brings the National Library of Medicine resources to a larger audience, but also makes coordinators more aware of those groups, their efforts, and how their local members can best be assisted when the coordinators return to the region.



**METHODOLOGY:**

NN/LM MCR coordinators will identify appropriate local, regional, or state professional meetings, conferences, and community health events to exhibit at and make presentations. NN/LM MCR staff will exhibit, depending on scheduling and cost of the event, with groups outlined below. Priority is given to tiers I and II.

Tier I - state library associations, community colleges, school librarian and media conferences

Tier II - community health meetings, public health conferences, physician assistants meetings

Tier III - school nurses, school IT, state PTA, school subject conferences, school health and safety fairs

Tier IV - medical societies

NN/LM special outreach initiatives - ClinicalTrials.gov, community colleges, K-12, and MedlinePlus Connect - are also taken into consideration when selecting exhibit opportunities. Promoting the NLM and NN/LM programs and services is a shared responsibility among the NN/LM MCR coordinators. With the region's distributed model, the coordinators are well positioned in each state to identify the best venues at which to exhibit and present for maximum reach. These venues continue to promote personal networking and demonstrate the NN/LM commitment to that group.

Coordinators report both national and local exhibit information to the NLM Exhibit System (OARS) and through the MCR's Activity Reporting System (ARS). If coordinators have the opportunity to present, this information is reported through OARS and ARS. By recording the number of attendees, personal demonstrations, the resources that were promoted, and how well presentations were received the NN/LM MCR has data that can be utilized to improve future exhibit opportunities.

**EVALUATION:**

- The NN/LM MCR will have an exhibit presence at a minimum of four events per state, including the state library association meeting.
- Coordinators will present at 25% of events where they exhibit.

## **Information Technology and Policy Awareness**

Technology services and resources along with associated standards continue to advance at a rapid pace. Staying abreast of new technology developments, understanding, and visioning the implication for technology are areas of critical importance for health sciences librarians.

**Goal: Develop, promote, and improve electronic access to health information by Network members, health professionals, and organizations providing health information to the public.**

**Outcome: Network members are aware of new technologies that increase access to biomedical information.**

**Approach:**

**Identify technological and policy developments and trends**

**RATIONALE:**

As technology services and resources along with their associated standards and policies continue to advance at a rapid pace, keeping current with these trends and identifying those that will improve access to biomedical information is an important service to our constituents. As institutional policies regarding the use of Web 2.0 technologies, cloud computing, and patient information and security continue to be debated, it is essential for health sciences librarians to be aware of the implications of these debates as they relate to their ability to provide access to health information and interact effectively with their institutions, colleagues, and constituents.

NN/LM MCR uses a variety of internal and external methods to communicate program offerings to Network members and targeted audiences. Effectively communicating with current and potential NN/LM participants is critical to the success of the NN/LM MCR program. Awareness and understanding of technological developments in communication methods and institutional policies regarding the uses of those methods must be taken into consideration as we identify and use new or improved technology to communicate information about our programs. The overall communications goal is to find and use communication methods that effectively reach our audiences and increase the ease of collaboration among network members.

The technology coordinators work toward Network members having an increased awareness of technology information that can increase access to biomedical information. In Option Year 3, there will be a focus on:

1. Technology policies and trends or policy trends that impact Network members; and
2. Developments in EHR technology and current federal policy and regulations regarding EHRs and meaningful use.

**METHODOLOGY:**

NN/LM MCR will continue to monitor appropriate technological blogs, web sites, newsletters and professional literature, and attend workshops and meetings to stay current and be knowledgeable of the development of new technological policies and their potential effect on health science libraries and their parent institutions. The NN/LM MCR will disseminate this information to our Network members through presentations, discussion venues, articles, and postings. The NN/LM MCR will continue to educate itself about EHR technology and monitor and disseminate new developments and advancements on the implementation and use of EHRs, specifically the value of integrating evidence based medicine resources and personal health information into EHR systems.

**EVALUATION:**

- 80% of 65 individuals agree or strongly agree that they learned something useful from the technology developments disseminated.
- 80% of 65 members stated the information provided by MCR increased their awareness of EHRs.

**Outcome: Health sciences librarians are integrated in the conduct of e-science.**

**Approach:**

**Form an interest group for e-science**

**RATIONALE:**

E-science information technology and policies are in different stages of development among academic health sciences libraries in the MCR. Although more attention is

being given to the subject, it continues to be a new paradigm in sciences that is data-driven, widely distributed, collaborative, and reliant on specialized computing. This paradigm continues to present an opportunity for Network members in academic health institutions to assume new roles by participating in e-science initiatives. The NN/LM MCR will continue to provide online resources (e.g., web page, online tools/services, etc.) and educational offerings on how health sciences librarians can support biomedical researchers. Preliminary research suggests that librarian involvement in research teams influences the team's data gathering, storage, and curation methods and improves the research output. However, there is still a gap in the literature on current practices of health sciences librarians supporting researchers in e-science activities. The NN/LM MCR views this as an area to which we can contribute.

The NN/LM MCR has sponsored three e-science events, the first event, held in 2012, was a workshop on data management and curation consisting of a keynote presentation on library services followed by a panel discussion. The second event, held as a follow-up to the 2012 workshop, was an interactive webinar allowing both in-person and virtual participants to comment on and discuss what they learned. The third event, a forum, was held in March 2013 as a collaborative project between the NN/LM MCR and PNR. The forum was called "The Research Lifecycle: Partnering for Success" and was hosted at three locations, using high definition broadcast technologies to link each of the sites together. The locations were the University of Utah, the University of Washington, and Oregon Health Sciences University.

In Option Year 2, the NN/LM MCR created an asynchronous class using the e-science forum recordings and presentation slides. The class, titled "The Research Lifecycle: Data Management, Institutional Research Profiles, Networking, Collaboration, Oh My!," is more than a typical learn, earn, and leave asynchronous class as the students remain enrolled after completing the class requirements. The continuing class members are encouraged to post comments on the incoming student assignments and share

their experience and knowledge regarding research support, enabling the class to become a library research support practices interest group.

**METHODOLOGY:**

**In Option Year 3, the NN/LM MCR will conduct several activities to encourage librarians to explore the new role of data curation and research support and will focus on helping librarians identify effective practices and services for this role. The NN/LM MCR currently links our members to the e-Science Portal for New England Librarians to provide vetted e-science resources and assists our members in using the Portal.**

**To further encourage librarians to become active in e-science and research support, the NN/LM MCR will provide funding for professional development to encourage hospital network members to participate in a conference or workshop on e-science.**

**The Research Lifecycle Moodle class has proven to be very popular with over 50 enrolled. We plan to update the Moodle class with additional information from the panelists and presenters and offer it again in 2014.**

In order to learn and share knowledge about research support activities **in our region and to encourage more dialogue and collaboration between class members**, the NN/LM MCR will expand the research support interest group dialogue by managing it as a journal club with regularly scheduled readings and discussions. The interest group will be developed first with members of the "Research Lifecycle" class. In addition, individuals from the entire region will also be solicited. Topics will focus on innovative tools and technologies for collaboration, discovery, data sharing and data management. Participants will identify how librarians, data specialists, and researchers can use these concepts and resources to provide added value to their research community. **Particular emphasis will focus on best practices for librarians as they implement these activities.**

**EVALUATION:**

- The interest group will share information learned on current research support and e-science practices for librarians through either a presentation or an article publication.
- **The funding award participants will share information gained through their professional development experience with the region via a presentation or article.**

## Technology Improvement

**Goal: Develop, promote, and improve electronic access to health information by Network members, health professionals, and organizations providing health information to the public.**

**Outcome: Network members and other organizations are better able to support access to health information resources.**

**Approach:**

**Assist Network members in developing strategies that address barriers to access**

**RATIONALE:**

The NN/LM MCR defines Network members as under connected if they are prohibited from accessing certain online network services, which include social media services such as Twitter, Facebook, YouTube, Web 2.0, Cloud; and/or online collaborative services such as Skype, Adobe Connect, and Moodle.

A major function of the NN/LM MCR technology program is to introduce Network members to online network services that can help them in the provision and dissemination of health information. Having instant, anytime-anyplace access to these types of resources also increases efficiencies in collaborative efforts and enhances professional development opportunities. However, there are Network members who experience barriers to accessing online network services, affecting their ability to increase their users' knowledge or skills along with their own.

Finding workable strategies to eliminate these barriers remains important to the NN/LM MCR because providers of information resources and services use online network services to add value to their products or to keep users informed about them. The NN/LM MCR, the National Library of Medicine, and other highly authoritative entities are among these providers and they rely on online network services to engage, educate, and inform their users. The NN/LM MCR continues to find that restrictive institutional policies primarily impact our hospital Network members who are a majority of our Full Network membership. Therefore, we will continue to look for effective ways to support their access to restricted online network services.

**METHODOLOGY:**

In Option Year 1, the NN/LM MCR established the NN/LM MCR Hospital Internet Access Barriers Working Group (HIAB-WG) which produced a guide identifying workable strategies to justify wider access to appropriate online network services. Network members can use this guide when talking with their institutional policy makers. We added a human component to the guide by offering a consults with NN/LM MCR staff to develop a strategy appropriate for their institution. The NN/LM MCR will regularly promote the guide and consultation services. The guide will be updated based on feedback from the Network members who were assisted.

**EVALUATION:**

- Two out of three Network members who consulted with the MCR indicated that the consultation strategies were helpful in increasing access to NLM and NN/LM resources and services.

**Approach:****Develop, enhance, and maintain the MCR Gamification Project****RATIONALE:**

Using game play as a way for children to develop new skills and become productive members of their society has been common throughout human history. Game play continues to be used by K-12 educators especially in early childhood development curricula. Game play for adult learning, in contrast, is something that has not been widely adopted despite data showing that this form of learning is often very effective. This trend is changing and more organizations involved in adult learning (e.g., higher education institutions, private corporations, etc.) are using gaming for skill development among their adult students and employees.

In Option Year 2, the NN/LM MCR staff developed the game theme, "Mission I'mPossible," a theme loosely based on the popular television program and movies "Mission Impossible." The game functions as another way for Network members to engage with the NN/LM MCR and provides competition with other Network members as an incentive to participate in NN/LM MCR programming.



Gaming allows the NN/LM MCR to connect with Network members in order to help increase their skills and knowledge in a fun way.

**METHODOLOGY:**

The NN/LM MCR will continue to promote, develop, and maintain the MCR game using Moodle or a better suited technology. In Option Year 2, the NN/LM MCR launched the game. Network members, a.k.a. "Agents," play by completing missions created by NN/LM MCR staff, a.k.a. "Game Masters." Missions have been developed for emergency preparedness, multi-lingual consumer health resources, and sharing the library's worth. For each mission accomplished, Agents earn points in the program area they are playing. Agents compete against other Agents for the most points, which are displayed on the leader board in the Game Play Area.

Game tasks are based on experiential education theory, which demonstrates that learning improves when incorporating real life experiences during the learning process. This is also known as the "See One, Do One, Teach One" method of learning used in the curricula of many U.S. medical schools. The NN/LM MCR has adopted this by modeling game tasks after this method. Game Masters create tasks or missions that when fully completed include see one, do one, and teach one activities. Point values increase through the mission with the highest value placed on being able to teach someone about something useful. An example of a mission that incorporates this is called "Mission Emergency Preparedness" and is worth a total of 110 points to the Agent.

### “Mission Emergency Preparedness”

	Points	
See One	10	<ul style="list-style-type: none"> <li>• Read an article on the importance of a library having a continuity of service plan in place prior to an emergency; and</li> <li>• Answer a question to demonstrate comprehension of the content of the article.</li> </ul>
Do One	30	<ul style="list-style-type: none"> <li>• Complete the “One Page Service Continuity Disaster Plan Template.”</li> </ul>
Teach One	70	<p>Complete one of these:</p> <ul style="list-style-type: none"> <li>• Report on the outcome of a meeting with your supervisor where you introduced your library’s “One Page Service Continuity Disaster Plan” and why it is important to have one; or</li> <li>• Write an article for a newsletter; or</li> <li>• Be a panelist at one of the NN/LM MCR <i>Breezing Along with the RML</i> sessions.</li> </ul>

Other ways Agents can earn points are by attending NN/LM MCR online webinars, such as our monthly *Spotlight! on National Library of Medicine Resources* or our monthly *Breezing Along with the RML*. Game Masters can also issue bonus points to Agents who go above and beyond what is normally required.

We are encouraged by the positive response from our Network members who are playing the game. As of January 2014, we have twelve Agents who have registered to play the game with six who are actively playing.

**EVALUATION:**

- At least one player meets the minimum requirements to win the MCR Game. The minimum requirements are completion of at least one mission from each of the game play areas, Mission Advocacy, Mission, Education, Mission Health Information Literacy, and Mission Technology.

**Outcome: Network members adopt new technologies to increase access to biomedical information.**

**Approach:**

**Encourage Network members to explore the use of tablet apps**

**RATIONALE:**

The NN/LM MCR has been supporting Network members with mobile technology through our education programs (classes, presentations, *Sandbox* session, etc.), website, NN/LM MCR Facebook page discussions, and through the iTest iPad project that ran between January 2012 and April 2012. The iTest iPad project provided 48 Network members with Apple iPad2s, training on their use, and a supportive community environment (via the NN/LM MCR Facebook page). The project collected pre and post project feedback data from the participants and the analysis showed that the adoption of new technology can enhance library services and the prominence of the librarian within their institution. In Option Year 3, the NN/LM MCR will continue to support Network members in the use of tablet technology as a way to increase access to biomedical information.

**METHODOLOGY:**

The NN/LM MCR will make it possible for qualifying Network members to purchase apps via iTunes or Google Play. They will be required to share their experience with the NN/LM MCR and with their institution. App Project participants will be provided with an App Evaluation Worksheet (AEW) to help with developing a systematic and critical evaluation of mobile apps. Participants will use the AEW for sharing their app evaluations with both the NN/LM MCR and their institution. The AEW will be based on the one created by the faculty of the Spencer S. Eccles Health Sciences Library, which is used by University of Utah School of Medicine third year medical students. The AEW guides the users in reporting on: the app's authority of information sources; accuracy and objectivity; currency of information; the app's organization and usability; purpose of app; and how it compares with other apps.

**EVALUATION:**

- 90% of the funded App Project participants report how they benefited by improving library services.

**Approach:**

**Offer learning opportunities through formal classes and informal hands on sessions**

**RATIONALE:**

The NN/LM MCR views providing Network members with learning opportunities in the area of educational technologies and online network services that support provision and dissemination of health information as critical to the practice of librarianship. Exposing members to the use of new or existing technology increases the likelihood they will adopt these technologies.

This, in turn, can ensure that they more effectively disseminate biomedical information to their users. To this end, we employ different teaching methods to accommodate different learning preferences. The NN/LM MCR has found that both structured/unstructured and synchronous/asynchronous learning opportunities are valued by our Network members.

**METHODOLOGY:**

We will continue to provide educational technology offerings using two methods. The first is the more formal class that offers continuing education credits approved by the Medical Library Association. These will be both synchronous and asynchronous classes that combine the use of Adobe Connect and Moodle. The other offering is the continuation of our informal learning called *MCR Sandbox Sessions*, where Network members come to learn in a fun environment.

We will offer an updated version of our "Cool Creative Communication: Three Part Class" (15 MLA CE) and the class "Research Lifecycle: Data Management, Institutional Research Profiles, Networking, Collaboration, Oh, My!" (5 MLA CE). We will also add a new synchronous and asynchronous class on how to create, edit, and share YouTube videos.

"Cool Creative Communications" is a three part, asynchronous Moodle class that focuses on the use of social media, visually presenting data, and constructing an effective presentation. The class can be completed in four weeks.

The YouTube class will blend synchronous and asynchronous methods using Moodle and Adobe. Students will learn about key concepts and elements of using video to promote library services: using digital video cameras, using video editing software (YouTube), adding text and sounds to video, and uploading video to the Internet as a YouTube Channel.

The informal *MCR Sandbox Sessions* allow Network members time to learn and play with social media resources, Web 2.0 tools, or hardware devices (e.g., tablets). We typically select products that are free to use or try, commonly or easily available, accessible on secure servers, not blocked by institutional policies, have features that are easy to learn within an hour, and can be presented in a fun way. Typical sessions begin with about ten minutes of instruction and demonstration followed by participants logging in to access the product.

#### **EVALUATION:**

- 90% of technology class (not including *MCR Sandbox Sessions*) participants report the class met the learning objectives.
- At least 90% of those responding report that the "MCR Sandbox Session" was fun.
- At least two participants share how they see themselves using the *MCR Sandbox Session's* tool in their work.
- 60% of at least 65 respondents from the target cohort to a questionnaire indicate that they adopted at least one new showcased technology per year.

**Goal: Develop, promote, and improve electronic access to health information by Network members, health professionals, and organizations providing health information to the public.**

**Outcome: Network members and other organizations are better able to support access to health information resources.**

**Approach:**

**Network members use video technology to share library advocacy tips**

**RATIONALE:**

The NN/LM MCR heartily endorses the concept that learning is best accomplished through meaningful activities. We know that our Network members have considerable experience and knowledge to share regarding successful library advocacy practices. Embracing both concepts, the NN/LM MCR will expand the use of our YouTube channel to enable Network members to learn about video technology and share information through original content videos.

Nearly 66% of content on the Internet today is video, and a large part of that is on YouTube, which gets 2 billion views each day. YouTube has become the world's second largest search engine after Google. Many users begin searching at YouTube because they'd rather see a video about their interests than read text. Although YouTube contains frivolous and funny videos, there is also a wealth of educational material available on the site. Educational institutions and for-profit and non-profit organizations use videos to engage new audiences and share valuable information. Some of the professional associations and government agencies that have YouTube channels include MLA, ALA, NLM, CDC, FEMA, and the World Health Organization. The NN/LM MCR YouTube channel has been used to host our NLM Site Visit video and the "Research Lifecycle Forum" recordings which had a total of 287 views in the first quarter and 244 views in the second quarter of this year. In using our YouTube channel for this activity, the NN/LM MCR hopes to create an awareness of the potential for this technology and engage our members in sharing information about library advocacy.

**METHODOLOGY:**

NN/LM MCR will develop and loan a portable video studio to Network members to create original content videos.

Equipment for the portable video studio (traveling case, high-quality microphone, and cellular enabled iPad) will be purchased during Option Year 2 and the use of the portable studio will be implemented in Option Year 3. The technology coordinators will instruct their fellow MCR coordinators on using the equipment and interview techniques (if needed). Written instructions will also be included in the portable kit. NN/LM MCR staff will identify potential Network members for interviews and work with the member to produce a video. The technology coordinators will edit and post the video to the MCR's YouTube channel and promote it to the region.

**EVALUATION:**

- Each video will be viewed by a least two Network members who report that they learned something helpful or useful.
- Two out of three Network members who participate in creating the videos will state that the activity increased their awareness about video technology and/or YouTube.