Research Study: What is the Impact of the Librarian on Cost of Patient Care?

Current research has focused on the value of information, libraries, or librarians on patient care. Because administrators of health care institutions tend to make decisions based on finances, the NN/LM MCR wanted to investigate the impact of the librarian on the cost of patient care. Below we describe the beginning of a research study that we project will take several years to complete.

Working Hypothesis

There are many key functions professional librarians perform in the provision and dissemination of information, but the one service most closely linked to patient care is the expert literature search services librarians provide to the healthcare clinician. Librarians are trained to be efficient and accurate in expert literature searching.

We have a working hypothesis that states:

Librarians have a positive impact on the cost of patient care. Clinician knowledge increases using the literature search services by the librarian resulting in increased clinical care effectiveness thus reducing the cost of patient care.

Current Research:

There have been few studies looking at the cost impact of the librarian on patient care. Librarians started publishing on this topic in 1994. The earliest article concludes that librarian-mediated searches did result in
reduced cost, primarily in length of stay.1 More recent articles have not been as decisive in their conclusions, stating that the librarian can impact the cost of patient care.2,3 More research has been done looking at the non-financial value of library service and its impact on patient care. This parallel research shows that health care providers definitely or probably handled aspects of a recent patient care situation differently as a result of library services.4

It is time for research on the cost impact of the librarian to be updated. Due to healthcare reform, hospital administrators are looking at the financial impact of departments to the institution. Because the librarian is not involved in direct patient care, no one is looking at the specific financial contribution of the librarian. When librarian services are included in a financial analysis, it is usually included as a cost along with other support services. There are many confounding factors for a lack of evidence linking services provided by a librarian to patient outcome and length of stay. This might be due to the extreme complexity in the causal relationships, the culture or hierarchy of clinic team members, and other unknown issues.

NN/LM MCR Research Study

This study will be done incrementally. The first step is to develop scalable methodologies that can be carried out at sites from a single facility study up to a multi-hospital study. The next step will be implementation of the methodologies and we will be recruiting volunteers from the region. The audience for this work is the hospital decision makers who determine the level of support given to the librarian. For over a year NN/LM MCR staff has been talking with statisticians, researchers who have investigated cost impact studies on other professions, and health economists to the feasibility of whether our study is and to hear about the challenges of carrying it out. A major challenge has been to locate a health economist with the interest and expertise to develop the methodology for the study.

Study Design Consultant

We are in the process of hiring a health economist as the design consultant for the study. The Study Design Consultant will produce a methodology to be used for a study that can be conducted at a single hospital and/or multi-hospital systems spanning multiple states. One possible approach would be conducting a cost effectiveness analysis based on the literature then developing a flexible budget impact model that allows users to input their own data and assumptions. Other approaches could be conducting retrospective or prospective studies.

Our consultant will produce two deliverables: 1) a comprehensive methodology report; and 2) a version of the report suitable for submission to peer reviewed publications.

We are committed to the bottom line that this area of research needs further exploration. Proving the hypothesis may establish the evidence needed by hospital decision makers to recognize that librarian contributions have a positive impact on patient outcomes and cost of care.

– Claire Hamasu, Associate Director

Suggested Reading:

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 practices. Embracing both concepts, the NN/LM MCR is using our YouTube channel to share this collective intelligence and the incredible wisdom of our talented Network members (Thank you Jeanne Le Ber, Emily Eresuma, Margaret Bandy, Susan Fowler, and Lauren Yaeger). Member interviews can be found here.

Why videos? Why YouTube? 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, funny, and inappropriate videos, there is also a wealth of educational material available. Educational institutions, for-profit and non-profit organizations use videos to engage 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 have had hundreds of views. In sharing these effective practice interviews, the NN/LM MCR hopes to create an awareness of effective practices in health sciences librarianship and also the potential video technology has as an engaging medium.

-John Bramble, Utah/Technology Coordinator

Do you have an effective practice you’d like to share?

- Can you answer “My top effective practice in health sciences librarianship is ___”? 
- Can you describe why you feel this way by talking about how or why you discovered your effective practice, the path you took to get there? 
- Can you describe what or who was impacted by this practice or the results of the practice?

Fill out this form and we will be in touch.

LOEX Professional Development Award

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I was fortunate to be funded by the NN/LM MCR Professional Development Award to attend the LOEX 2015 Conference, held in Denver April 30 – May 2, 2015. The LOEX Conference is a relatively small conference that brings together instruction librarians from the spectrum of educational institutions. It is a convergence of like-minded librarians and educators, meeting to share ideas and innovations in instruction and
assessment of information literacy competencies.

A requirement of the Professional Development Award process was to engage a member of my college administration in a conversation about integration of library instruction within our college and how attendance at LOEX would support our instruction initiatives. The most gratifying part of my conversations with Dr. Kay Maize, Provost of the Bryan College of Health Sciences, was to realize the high regard in which library instruction is held within our institution. Dr. Maize reminded me of the many accomplishments achieved in library instruction integration in the College and Medical Center over the past several years. We’ve come a long way, and Dr. Maize helped me understand what a remarkable achievement this is.

If you are an academic librarian involved in instruction, you are aware that the Association of College and Research Libraries (ACRL) has recently replaced the long-standing Information Literacy Competency Standards for Higher Education (2001) with the Framework for Information Literacy for Higher Education. The Framework provides a totally different perspective on information literacy initiatives: moving away from a skills-based perspective to a more theoretical framework. The intent is to elevate information literacy within the world of academia, encourage more meaningful integration of information literacy into coursework, and embrace the wealth and variety of 21st century information resources.

Needless to say, the new Framework was a major focus of many of the papers presented at LOEX 2015. I attended breakout papers that demonstrated ways in which librarians have created active, engaging information literacy sessions utilizing the new Frames; papers that elaborated on effective librarian/faculty collaboration; sessions detailing the advantages of effective flipped learning on subsequent in-class information literacy activities; and sessions on assessment of information literacy. The conference is inspiring because it showcases librarians as creative teachers modeling sophisticated, pedagogical approaches to their craft. I came away from LOEX with several ideas that I will implement in courses in the fall. A very effective presentation from librarians at the University of Virginia was called “Getting carded: Threshold concepts in one-shot sessions.” The primary Framework concept addressed in this presentation was “Authority is constructed and contextual.” The librarians created card decks, each deck based on a contemporary current event, with the cards picturing a variety of sources concerning that event (the original Twitter posting, background journal articles, newspaper articles, Wikipedia, etc). I am going to modify the assignment so that the topics relate to healthcare concepts we teach within our Introductory Freshmen Experience course. Students will work in groups to find the sources online, critique the authority of the source based on our CARB rubric, discuss the types of assignments for which that resource would be appropriate and, ultimately, the group will create an APA-formatted citation for each source. An additional element to our session is based on a “lightning talk” presented by a librarian from Hartwick College: after critiquing the authority of their sources, our small groups will place their card deck citations on a “Pyramid of Evidence,” building a pyramid that ranges from “user created evidence” at the base, up to expert created, peer-reviewed sources at the peak of the pyramid. This one-hour session will incorporate several of the themes that recurred at the Conference: the importance of engaging students in small group work, using a flipped classroom approach to teach fundamental “skills” prior to class, that will then be applied in class and incorporating aspects of a couple of complementary “Frames” within one information literacy session.

I am a very pragmatic thinker and planner; as such, I benefited from the exposure to creative ways of thinking about the Framework and examples of ways that innovative academic librarians are incorporating the Framework into their classroom interactions. I came back from LOEX with ideas of Framework-based class activities that I can incorporate immediately into our information literacy curriculum, thoughts about conversations to have with our faculty about the Framework, a broader perspective on how to embrace the Framework and an appreciation of the extent to which several of these Frames are already in place within the integrated information literacy curriculum at my institution. A success all around!

Mobile App Sharing Project:
the 3rd quarter reviews are in!

the 1st quarter reviews are here!
the 2nd quarter reviews are here!
Wow! Has a year gone by already? The Mobile App Sharing Project ended in April 2015. We’d like to thank all of the app evaluators for participating in this project. The project participants have reviewed a total of 48 apps using a systematic evaluation tool. Each app evaluation looked at basic information (app name, operating system, sponsor/publisher/creator, cost, web links, etc.), who the primary user is (professional/layperson), creator’s credentials, bias, currency of information, and ease of app’s navigation/access, etc. We also asked the evaluators to rate the app from excellent all the way down to "don't bother wasting your money.”

Several of the reviewers shared their experiences in evaluating apps at a recent Breezing Along with the RML session, check out the recording here.

Take a look at this quarter’s app evaluations below and perhaps it will help you select an app that is right for you or your clients.

(more...)

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### 2014-2015 Librarians in The Wonderful Land of Oz

**We have a winner!**

*Congratulations and the Glinda Crown go to Shelley White, Librarian at Van K. Smith Community Health Library in Springfield, Missouri.*

Not only did Shelly complete the requirements to win, she also earned 12 hours of Medical Library Association CE credits along with the increase in skills and knowledge that goes along with MLA classes.

We asked Shelley to share a few comments on her experience playing the game.

"I truly enjoyed the format of the course as a game because it really engaged me and my competitive nature. I looked at every challenge and felt each one was beneficial to complete since it would be valuable for me and my organization. Each one helped me to develop a tool that I could take to my upper management that helped to solidify the importance of the library within my organization. The ROI tool we developed, called our dashboard, is shared quarterly with our VP which visually displays our worth to the organization in numbers – something most upper management can relate to. The SWOT analysis exercise helped me to understand why we have some coworkers (our largest user group) who do not engage with the library and its services and how we can change that in the future. Overall, this was a fun and engaging challenge and would recommend more librarians to participate. Who knows, maybe you can win a Glinda crown for yourself next time!

Shelley wasn’t the only one playing the game. The next highest point earner was Tallie Casucci of the Eccles Health Sciences Library. We had a total of 35 players register to play from all over the United States with 17 who were earning points.
What games were these players engaging in? We had three challenges that offer game points and MLA CE credits. We structured each challenge using the Experiential Education Theory (also know as the see one, do one, and teach one learning method used in many schools of medicine across the U.S.)

The three challenges were:

**Toto, I don't think we're in Kansas anymore: Walk’n Talk Like a CFO (3 MLA CE)**

In this challenge, players learned how to prepare a response that addresses the fact that a library costs a lot of money to operate. The response justifies the costs in a way that is understood by financial administrators: return on investments (ROI), cost benefit analyses (CB/A), and the retail value of library services. The learning objectives were:

- Demonstrate understanding of how to effectively express the value of their library using concepts found in ROI, CB/A, and Retail Value calculations
- Confidently respond to the question, "What is your library’s worth?"

**Houses Falling From the Sky? Never Will Happen To Me: Emergency Preparation Planning (5 MLA CE)**

In this challenge, players learned that having a role in an emergency is not only a great way mitigate its impact on stakeholders but also to advocate for the library. The learning objectives were:

- Increase knowledge of why having a disaster plan in place to provide users continuity of service is important
- Create a continuity of service plan
- Use the library’s continuity of service plan as a tool for library advocacy

**Where is Glinda, The Good Witch of the South? (4 MLA CE)**

In this challenge, players were to perform a SWOT analysis and talk to at least two potential users of the library, to understand how the work environment might be affecting access to the information services provided by the library. The player learned about using SWOT analysis, a standard business tool, for assessing their environment. The learning objectives for this challenge were:

- Understand the differences between internal and external factors in a SWOT analysis
- Know how to conduct a SWOT analysis
- Practice applying the data in the SWOT analysis to library programs and services

The game was a success because of the wonderful NN/LM MCR staff and the help of two Network member librarians, Kitty Serling, librarian at the Research Medical Center Carl R Ferris Medical Library in Kansas City, Missouri and Erin Wimmer, Education Librarian at the Eccles Health Sciences Library at the University of Utah in Salt Lake City, Utah. We appreciate Kitty and Erin being our Network member advisors for the game.

The NN/LM MCR will be announcing the next game over the next several weeks. Keep your eyes peeled for those announcements. If you have any questions, please direct them to john.bramble@utah.edu.

– John Bramble, Utah/Technology Coordinator
Introducing Alicia Lillich

Alicia Lillich is the new Kansas/Technology Coordinator for the National Network of Libraries of Medicine, MidContinental Region. She is located at The University of Kansas Medical Center. She earned her Bachelor of Arts in English Literature from the University of Central Florida and her Master of Library Science from Emporia State University. Alicia previously worked in Reference and Instruction at Southwestern College and Butler Community College.

She recently moved to the Kansas City area with her husband, 22-month old son, a Basset Hound, and two cats. She loves to travel, bake, and try new foods.

Whooo says...

Dear Whooo,

I am the director of the hospital library in a large urban hospital. We seem to have a successful library and have lots of satisfied users. My staff is always busy and we have good relationships with the many departments we serve. My worry is that I am not convinced that our administration understands the value the librarians provide to the hospital departments. I always write an annual report, and communicate with my manager regularly, but I want to find ways to enhance my reporting to make sure administrators understand and appreciate our contributions. Do you have any suggestions?

Sincerely,
Marketing Novice

Dear Marketing,

How nice to hear from you, and what a great question! I love that you report regularly and always submit an annual report. That is the foundation of keeping your administrators in the "library loop." Your idea of improving your communications is terrific. An unspoken goal in this situation is to create communications that successfully highlight and explains why the library deserves funding over other valuable hospital causes.

One of the characteristics of annual reports is the inclusion of statistics – how many searches were performed, what was the cost per use of your databases, which departments have you served? The question is how to make those statistics interesting, or even compelling. One of the newer ways to make reports and statistics more interesting is the use of data dashboards. These visual descriptions of your data allow you to highlight your accomplishments in color and graphically show the scope of your work. The OERC (Outreach Evaluation Resource Center) has a terrific web page describing data dashboards and providing links on how to create and use them. I highly recommend you take a look at these resources. One of my favorites is the Periodic Table of Visualization Methods, which displays an actual periodic table with a different visualization method listed for each element of the table. It should be easy to find ways to use some of the techniques suggested.
Another way to bring life to your reporting is to evoke an emotional response in your reader. An effective method is to use a personal example of how your services work to fulfill the mission of your hospital. For example, can you insert a short sentence or two about how library services helped a patient’s family to better care for a sick child, or how the information you provided helped a physician make a difficult diagnosis? I’m sure you have many examples, as all of the health sciences librarians I know have been able to positively impact patient care. The point is to give concrete examples of how your work has positively impacted the lives of your patients.

Showing how your work impacts the operation and mission of the hospital is a third way to improve your communication. Give examples of how your contributions helped develop a new hospital service, how the research you provided contributed to new guidelines or protocol development that helped with clinical outcomes, or how your trainings helped clinical and administrative staff locate needed information efficiently. Examples like these increase the understanding of the value you and your staff contribute. Again, the goal is to make a connection between the statistics you present to the actual operation and outcomes of the care the hospital provides.

I hope these suggestions have been helpful, Marketing. Please share examples of your next reports to show me how you incorporate these ideas. I would also love to hear from you about how your “revised” reports are received!

Sincerely,

Whoos

Spring 2015 Questionnaire results

Full and affiliate NN/LM MCR Network members were invited to complete the Spring 2015 questionnaire about programs and services offered in the Region. Four hundred forty-nine Network members in the region’s mailing list were invited; 120 of those invited responded as well as 16 more who used a general URL link distributed in the weekly RML news email. Forty were affiliate members, 80 were full Network members and status is unknown for 16 others – a 30.3% response rate. Respondents represented academic (43%), hospital (35%), public (12%) and other (10%) libraries and institutions. Responses were generally consistent with the population distributions of the six state NN/LM MCR region.

The questionnaire addressed three areas:

- NN/LM MCR programs and services in general
- Communications that increased awareness of technology developments and of electronic health records
- Advocacy programs

Overall the NN/LM MCR is offering programs, services, and communications that members value. From 65% to 80% of respondents agreed or strongly agreed that the six listed programs contribute to their ability to
support access to health information resources. Weekly news emails, pushed to members; webinars featuring NLM resources and topics of interest to health science librarians and others working in health care; as well as visits and conversations with Network members all received high ratings and numerous positive comments. Network members rated communications about technology positively and value the information they receive about new technology developments. Respondents also rated the Advocacy project efforts positively. During an activity at the Quint meeting, the joint 2014 MLA chapter meeting, attendees expressed interest in the participating NN/LM regions providing programs on marketing and advocacy. The Library Advocacy Coordinator's Who Says article on marketing and networking received positive ratings from 74% of respondents. This and other findings suggest that continuing to enhance marketing skills to address new roles for librarians and new services for libraries will find an avid and appreciative audience.

Thirty four respondents offered comments. Several were suggestions about areas the NN/LM MCR could address. These include:

- lobbying for requiring libraries for hospital certification
- Moodle courses for CHIS certification
- more coverage of electronic resources/products, changes that are taking place
- investigating resources used by community hospitals not affiliated with academic centers
- whether hospitals without librarians suffer for that lack

All will be considered and, when feasible, efforts will be made to include them in programs.

Most rewarding were the comments that included words such as accessible, appreciate, connect, contribute, empower, trust, useful, and wonderful. The NN/LM MCR thanks the respondents for their feedback, thoughts, and support. We will continue our efforts to offer programs and services that increase awareness of and enhance the ability of librarians in the region to support access to health information resources.


-Betsy Kelly, Assessment & Evaluation Coordinator

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**Are you following NLM and NIH social media accounts? If not, you could be missing out.**

**Social Media and Health Communication**

Social media has become an increasingly growing influence in personal and professional life. The most recent Pew Survey on social media found that 79% of adult internet users have at least one social media account. While Facebook has the largest user base (at 71%) other platforms are growing at a high rate. Those include LinkedIn, Twitter, Pinterest, and Instagram.

More and more health providers and organizations are using social media as well. In a 2013 systematic review, it was found the benefits of social media for health communication are:

1. increased interactions with others
2. more available, shared, and tailored information
3. increased accessibility and widening access to health information
4. peer/social/emotional support
5. public health surveillance
6. potential to influence health policy

**NLM/NIH Social Media**

The National Library of Medicine launched their first social media account in 2009, with a Twitter feed for MedlinePlus, @medlineplus4you. They have since simplified the name to @medlineplus. ([https://twitter.com/medlineplus](https://twitter.com/medlineplus)) This account now has over 85,500 followers. In 2010, NLM director Donald Lindberg stated: "social media sites are an important and essential way to further enhance the role of NLM in the 21st century." Currently, NLM has 15 Twitter feeds, five Facebook pages, three Pinterest accounts, a YouTube page, and other social media and outreach accounts ([http://www.nlm.nih.gov/socialmedia/index.html](http://www.nlm.nih.gov/socialmedia/index.html)).

NLM accounts are not limited sharing only NLM information, they also post appropriate health science links from different governmental, non-governmental, and even international organizations. This content and
their sources are vetted by librarians. They often post information that is not available or difficult to find on their web site.

The National Institutes of Health is fully behind this effort. In their 2011 Social and New Media Policy, they state social media "offer important opportunities for promoting the goals of transparency, public participation and collaboration." Their Social Media and Outreach page has links to accounts for 21 National Institutes of Health, six NIH Centers, and five Related Organizations.

**Getting Started with NLM/NIH Social Media**

I've highlighted several accounts that I've found particularly helpful.


The main social media accounts for the NIH is a great starting point. They regularly post general NIH news and information, but also share posts from the social media pages of the different National Institutes of Health. It's a helpful way to find other accounts you would like to follow.

@PubMedHealth – [https://twitter.com/PubMedHealth](https://twitter.com/PubMedHealth)

PubMed’s Twitter feed isn’t updated as frequently, but the information they share is specifically geared towards Health Science librarians.

**NLM YouTube** – [https://www.youtube.com/user/NLMNIH](https://www.youtube.com/user/NLMNIH)

NLM’s YouTube page posts clips on the history of medicine, training, outreach, and NLM events. I strongly recommend checking it out, if only for the training videos. These short videos are great for picking up a new skill or sharing with others. You can subscribe and get an e-mail whenever a new video is posted.


If you are working with caregivers, NLM has accounts specifically for them on three different platforms. The Facebook and Twitter feeds post more general caregiver information. The Pinterest page has different boards broken down into specific categories, such as medication management, parenting, and end of life care. These accounts can be great for caretakers to get information, learn skills, and connect with others.

**NIH for Health Pinterest** – [https://www.pinterest.com/nihforhealth/](https://www.pinterest.com/nihforhealth/)

NIH also has a useful Pinterest account. If you are looking for health information to share with others, it can be a good resource. The various boards include links with images for things like news in health and infographics.

– Alicia Lillich, Kansas/Technology Coordinator

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