



801-587-3518 – Voice  
<https://nmlm.gov/nto>

2017

# NNLM TRAINING NEEDS ASSESSMENT: NATIONAL RESULTS

NNLMTRAINING OFFICE

MARCH 1, 2017

JESSI VAN DER VOLGEN & MOLLY KNAPP

Developed resources reported in this document are supported by the National Library of Medicine (NLM), National Institutes of Health (NIH) under cooperative agreement number UG4LM012344 with the University of Utah Spencer S. Eccles Health Sciences Library. The content is solely the responsibility of the authors and does not necessarily represent the official views of NIH.

## Table of Contents

Executive Summary.....	3
Introduction .....	4
What are the training needs and wants of our learners?.....	<b>Error! Bookmark not defined.</b>
Method .....	4
Results.....	4
Respondents: By Region .....	4
Respondents: By Profession.....	5
Why do learners attend continuing education classes? .....	6
How do our learners prefer to learn? .....	7
Learning environments .....	8
Website restrictions.....	9
What do learners want to know? .....	9
Question Design.....	10
Interpreting results .....	10
Skills and Knowledge.....	11
NLM Resources, Products, and Databases.....	16
Where do our learners want to be experts? .....	21
Where do our learners consider themselves novices? .....	22
Everything Else.....	23
Top 6 areas for skills & knowledge training & recommendations.....	24
Top 6 areas for NLM Product training & recommendations .....	25
Conclusion.....	26
Training Needs Assessment Working Group .....	26
Appendix .....	27
Comments.....	27
Everything Else .....	44

## Executive Summary

One of the goals of the National Network of Libraries of Medicine is to “Enhance health information access by further developing health sciences librarians’ professional skills and knowledge.” In service of that goal, the NNLM Training Office (NTO) aims to deliver high quality, innovative training and help ensure efficient and effective development of NNLM training activities. In conducting the Training Needs Assessment (TNA), the NTO hoped to gain important insight for NNLM regarding the needs, desires, and environmental constraints of potential class participants. Respondents’ ratings of their own current and desired proficiency in key topics and resources can be used to inform NNLM class development priorities, allow NNLM to meet students where they are and help them gain the skills necessary to succeed.

The TNA was conducted from October through November 2016 via Survey Gizmo and RMLs distributed through their existing communication channels. There were 559 responses and an 84% completion rate for those 559 responses. About two-thirds of respondents were from academic health sciences libraries or hospital/clinic libraries. Participants indicated that they primarily took classes to improve skills for current or future roles and to learn about interesting subjects, not necessarily for continuing education credit.

As we offer more classes online, it is important to understand barriers to access or full participation that our students may encounter. Only slightly more than half are attending classes in environments where they feel comfortable speaking aloud, so expectations for participation in live online classes should account for that. About half of respondents have social media restrictions at work, and that increases to nearly 75% for hospital or clinic librarians. In particular, YouTube is restricted for approximately 10% of all respondents, and nearly 20% of those in hospital libraries. Class recordings can allow for later viewing, which is an advantage, but some cannot access these recordings at work. Live online webinars and interactive tutorials were the most preferred learning formats, followed by short videos and face-to-face classroom instruction.

Respondents were asked to rate their current and desired proficiency in several general health sciences librarianship knowledge areas and for particular NLM product groups. We calculated the median difference between the current and desired ratings. Overall, the largest median gap was in understanding open science concepts; student rate themselves as beginners (2, on a scale of 1 to 5), but would like to be experts (5). Areas with two-point gaps include: understanding and searching for evidence-based research, evaluating outreach efforts, using basic functions of bioinformatics tools, and using drug and medical device information resources. Respondents want to be experts in: conducting literature searches, understanding and searching for evidence-based research, understanding open science concepts, developing and teaching classes, PubMed, clinical information resources, and accessing full text.

We look forward to collaborating with our NNLM and NLM partners to create training that advances the skills and expertise of those seeking health information.

## Introduction

### What are the training needs and wants of our learners?

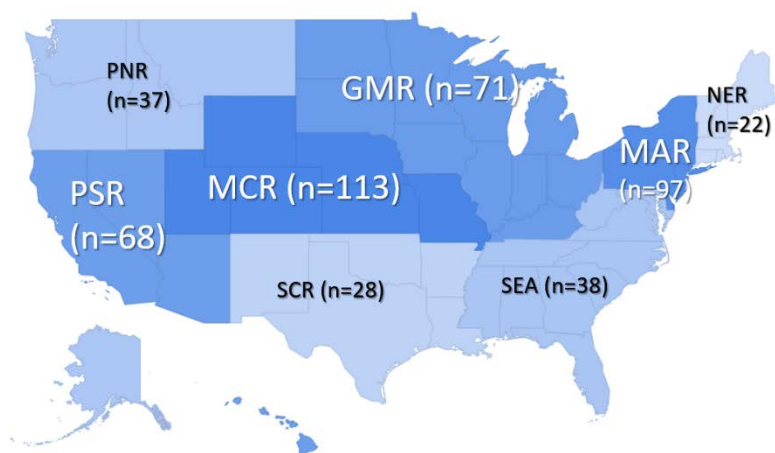
The National Network of Libraries of Medicine (NNLM) is comprised of eight Regional Medical Libraries (RMLs) and five National Offices. In Fall 2016 the Training Needs Assessment Working Group, led by the NNLM Training Office (NTO) with input from NLM, NEO and RMLs, set out to investigate the training needs of NNLM learners. We wanted to know why our learners take continuing education classes, what their work environments looked like, and which learning formats worked best for them. Most importantly, we wanted to know our learners' current and desired proficiency levels for NLM resources and library-related skills. The ultimate goal of our Training Needs Assessment (TNA) is to ensure upcoming instructional offerings from the NNLM are relevant and accessible to our learners.

## Method

A 45-question instrument in Survey Gizmo collected data from October to November 2016. We distributed the TNA on eight regional NNLM lists and other online outlets. We asked each RML to distribute the TNA on their regular email lists or an appropriate subset of those. Some regions promoted the assessment in their newsletter or blog. In addition to collecting information about motivations for taking training, preferences for training format, and the learning environments and equipment available to learners, we asked respondents to rank their current and desired skill levels for NLM Products and general topics relevant to health sciences librarianship on a scale of 1 (novice) to 5 (expert). We used the median response score to these questions to calculate gaps in knowledge and identify training needs. We used dot plot graphs to visualize the results of these questions.

## Results

### Respondents: By Region



We collected 559 responses, 472 complete and 87 partial, with an 84% completion rate. Responses represent all NNLM regions. MidContinental (n=113), Middle Atlantic (n=97) and Greater Midwest (n=71) had the largest respondent groups.

Figure 1: Respondents by NNLM Region

## Respondents: By Profession

Two-thirds of respondents work in the academic health sciences or hospital library settings. Other learners come from higher education and community colleges, public libraries, and government.

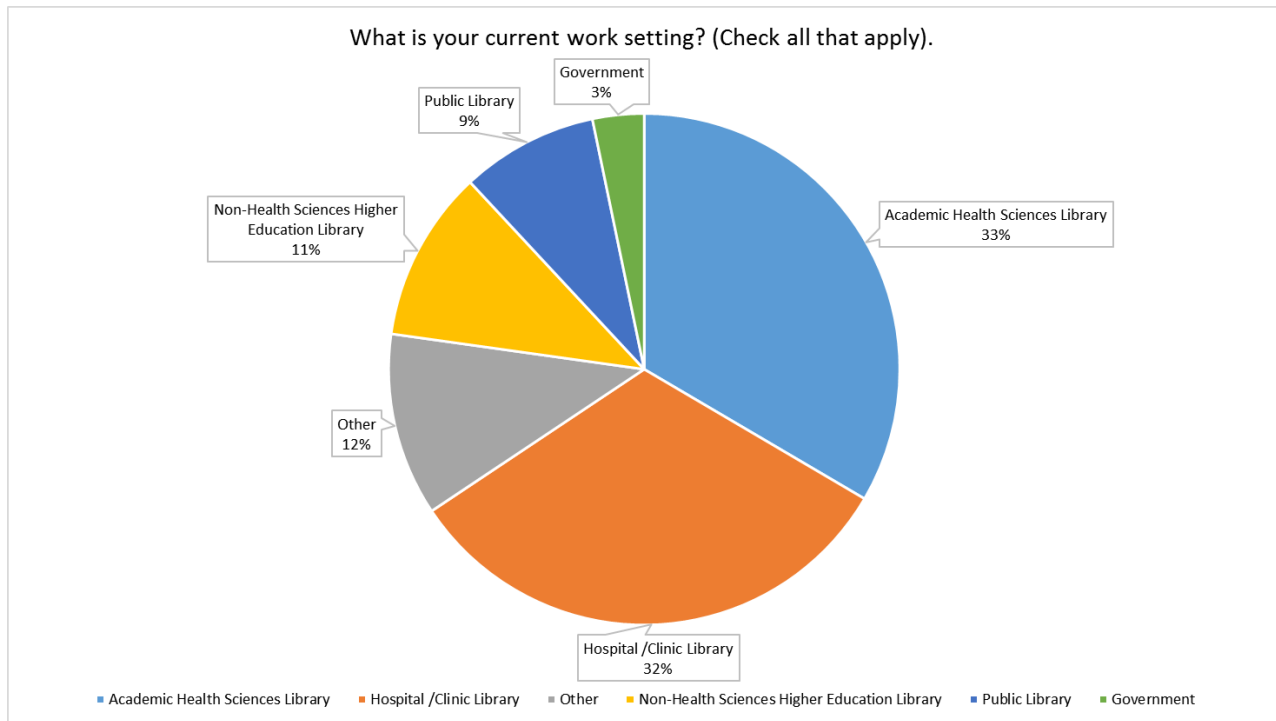


Figure 2: What is your current work setting?

“These workshops cross lines for medical, public, academic and special. Very solid resources for librarians looking to expand their knowledge and areas of expertise.”

It is not just health sciences librarians taking NNLM classes. 12% of our learners work in a spectrum of environments including: K-12 education, corporate/industry, public health, consulting, nonprofits, community-based or faith-based organizations and specialized libraries such as consumer health, associations, and public health.

### Why do learners attend continuing education classes?

Learners primarily take NNLM classes to improve skills for their current job and to learn about interesting subjects. Networking, earning continuing education credit or Academy of Health Information Professionals points, and continuing education as a job requirement were not major reasons. Learners could select up to 3 choices so total response is greater than 559.

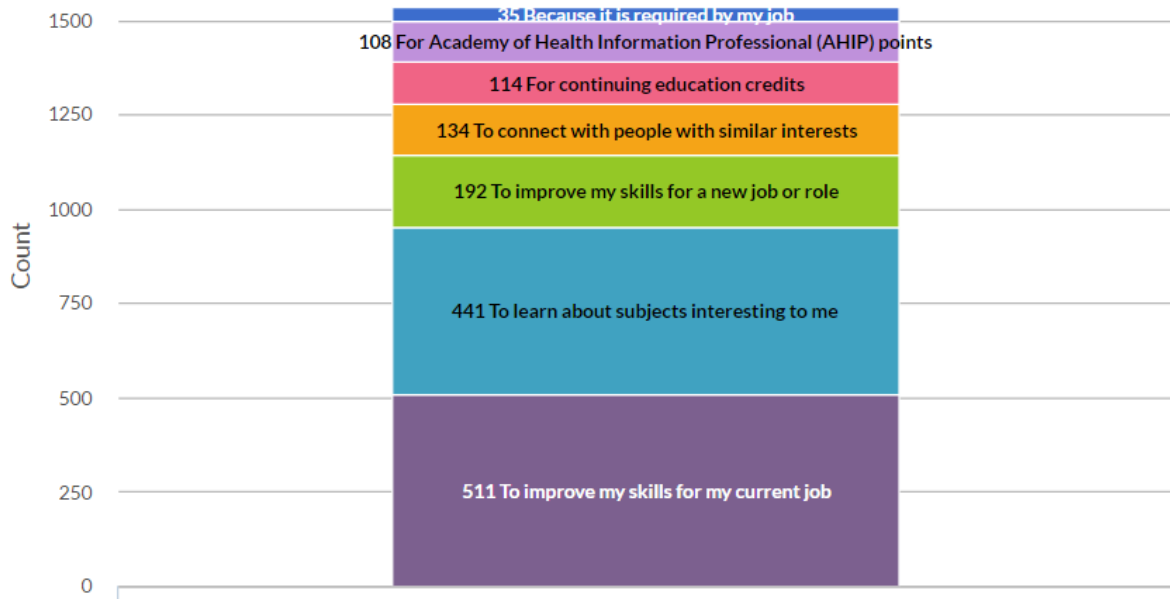


Figure 3: Why do you attend continuing education classes? Please select your top three reasons.

“Funds for travel to CE is dried up. Completely. I'd like to connect with librarians in other ways to make up for this loss of interaction.”

“In order for me to teach our university students how to use PubMed properly and efficiently, I need to learn how to do it!”

### How do our learners prefer to learn?

Live online webinars and face-to-face classroom instruction are the most highly preferred formats for learning. Learners slightly prefer short videos and interactive tutorials. About a quarter slightly dislike handouts or slides. Forty-six percent of learners slightly preferred recorded webinars, while 5% strongly disliked them. Live online webinars are the most preferred learning format when combining highly preferred and slightly preferred ratings. Learners also prefer interactive tutorials, short videos, and face-to-face classroom instruction. Learners with hectic schedules or who live distant time zones prefer recordings.

	4 - Highly prefer	3 - Slightly prefer	2 - Slightly dislike	1 - Strongly dislike
Asynchronous (self-paced) online class	174 31.7%	254 46.3%	109 19.9%	12 2.2%
Face-to-face classroom instruction	223 40.5%	219 39.7%	89 16.2%	20 3.6%
Handouts or slides	161 29.4%	240 43.8%	130 23.7%	17 3.1%
Interactive tutorials	193 35.3%	269 49.2%	78 14.3%	7 1.3%
Live online webinar	263 47.8%	218 39.6%	65 11.8%	4 0.7%
Recorded webinar	184 33.4%	246 44.6%	93 16.9%	28 5.1%
Short videos	170 30.9%	289 52.5%	78 14.2%	13 2.4%

Figure 4: How do you prefer to learn about new resources or acquire new skills?

“I want accurate information and the opportunity to ask questions and have them answered. The modality doesn't really matter.”

“I prefer recorded webinars because I'm out here in the Pacific...can't always get to work and access something at 6 a.m.”

## Learning environments

We asked respondents to describe their current learning workspace, including their computer equipment, whether they can speak during an online class, and website accessibility at their place of work. Most use a computer to access online classes, but nearly a quarter also use a tablet or smartphone. 77% can play sound, but only 53% can speak aloud without interfering with their coworkers' or patrons' environment.

“I’m a solo librarian without an office so participating in a live class can be problematic... I have no door to close.”

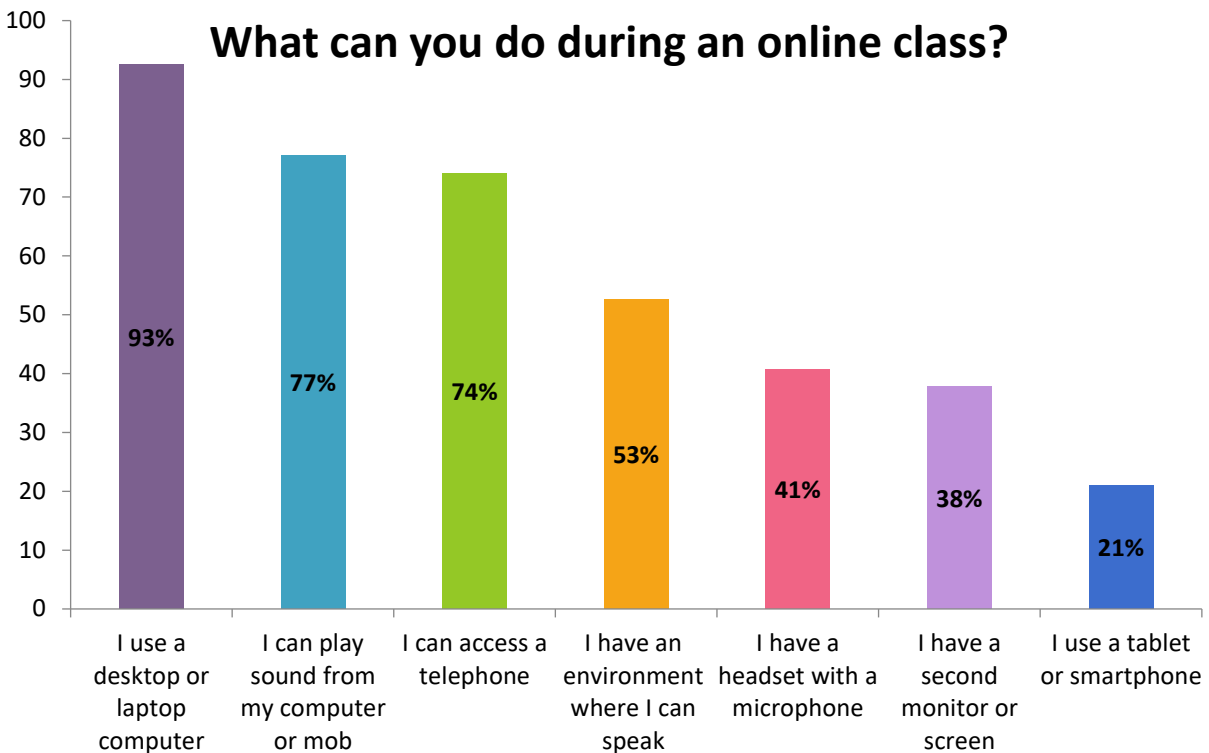


Figure 5: Describe your work environment during an online class. (Select all that apply)

“The environment where I can speak aloud is usually the drawback for my taking a live web-based class”



## Website restrictions

Over half of respondents reported no restrictions to websites. We post NNLM class recordings to YouTube, and 9.8% of all respondents indicated restricted access to YouTube. Respondents in hospital libraries indicated preference for recorded webinars due to scheduling and work environments, yet nearly 20% of hospitals block YouTube. The most common restricted sites mentioned in comments included Google Documents, Google Drive, other cloud sharing services, and some conferencing software.

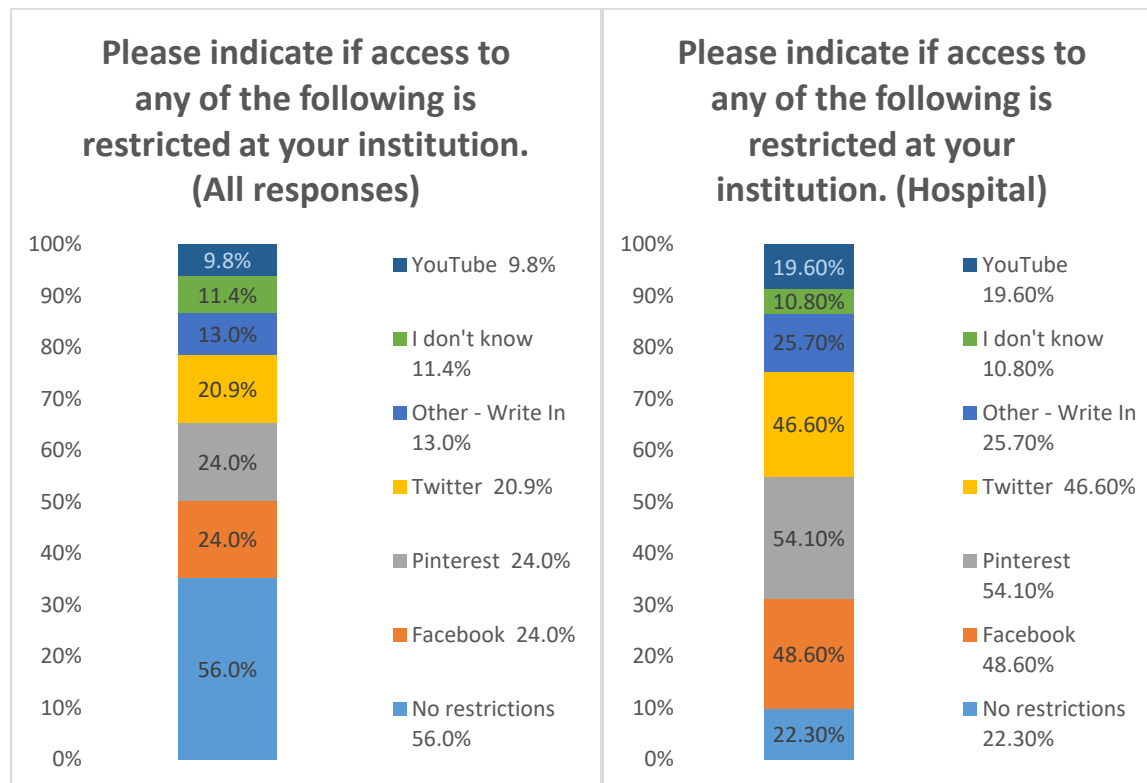


Figure 6: Website restrictions for all responses and hospital libraries.

## What do learners want to know?

The bulk of our needs assessment asked respondents to rate and comment on their current and desired proficiency levels for NLM Products and general librarianship topics. They rated their proficiency on a scale of one (novice) to five (expert). Learners could also provide optional comments after each question. We present results in order asked on the needs assessment, along with representative comments.

## Question Design

We asked 30 questions, deriving sixteen skills and knowledge questions from the Medical Library Association's Professional Competencies for Lifelong Learning and Professional Success<sup>1</sup> and fourteen NLM product questions from a list of over 200 NLM Resources, Databases and APIs<sup>2</sup>. Figure 7 illustrates example questions from the needs assessment.

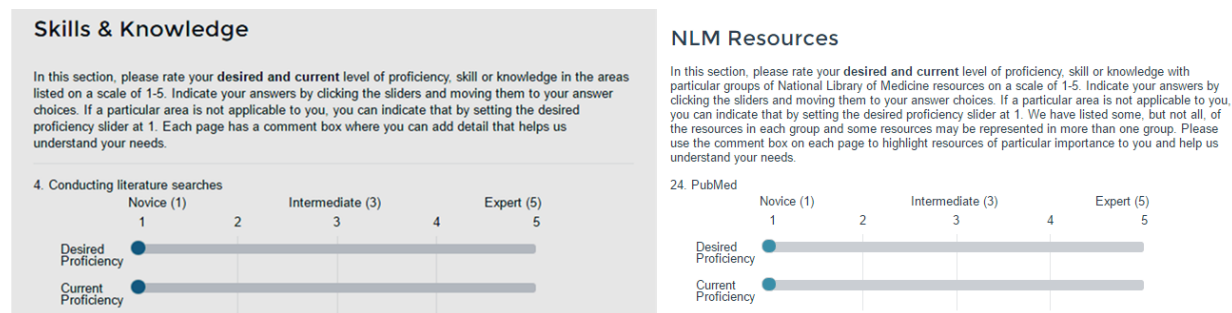


Figure 7: TNA Ranking Question Format

## Interpreting results

Learners were asked to rank their current level and desired level of proficiency on a scale of 1 (novice) to 5 (expert) for 20 different topics. We created dot plots of the response data to visualize where our users are, where they want to be, and the biggest proficiency gaps. The advantage to presenting results in a dot plot is that a moderate amount of quantitative data can be quickly visualized. We used the median score to calculate the gaps in knowledge. The median is middle value of a set of numbers, and tells us the most typical score for each scale.

Figure 8 shows example results. The blue square indicates the current level of proficiency and the green circle indicates the desired level of proficiency. In this sample topic, the median score for current proficiency is 4 - advanced and the median score for desired proficiency is 5 - expert. Dot plots with wider differences indicate bigger gaps in knowledge – and thus potential training areas. By asking learners to self-rank their proficiency level, we can discover suggested levels to begin training, as well as where to adjust current training.

### Participants' **current** and **desired** levels of competency (Median ratings)

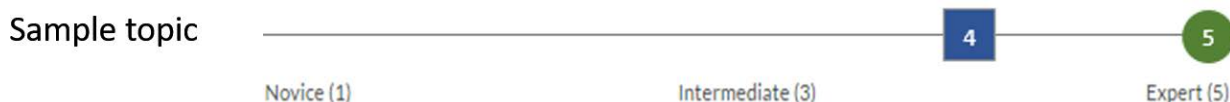


Figure 8: Sample dot plot showing a current proficiency of 4 (advanced) and a desired level of 5 (expert)

<sup>1</sup> <http://www.mlanet.org/p/cm/ld/fid=39>

<sup>2</sup> [https://wwwcf.nlm.nih.gov/nlm\\_eresources/eresources/search\\_database.cfm](https://wwwcf.nlm.nih.gov/nlm_eresources/eresources/search_database.cfm)

## Skills and Knowledge

The Skills and Knowledge section asked about proficiencies related to health sciences librarianship as outlined by the Medical Library Association. We divided sixteen questions into four groups and present results in the order asked on the needs assessment, along with representative comments. Full comments are available in the Appendix.

### Group 1

*Literature searching | Evidence-based research | Instruction skills | Web content creation*

Learners want to be experts in literature searching, evidence based research, and instruction. They rate their current proficiency at intermediate or higher in these areas, but still want to know more. Our learners do not aspire to be experts at web content creation, but a two-point proficiency gap indicates they desire to know more about the process of creating videos and web tutorials.

#### Participants' **current** and **desired** levels of competency (Median ratings)

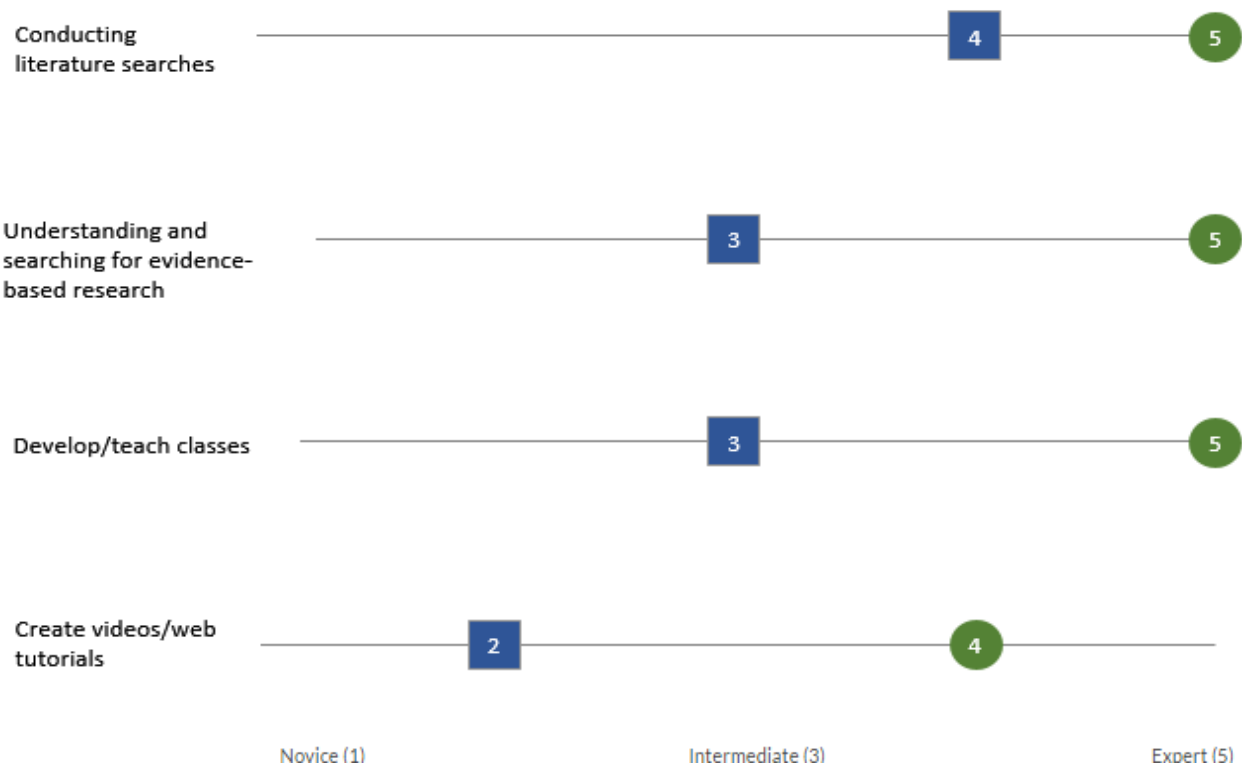


Figure 9: Skills and Knowledge Group 1

“I have some experience in all four areas, but would like to learn about other methods that are out there to incorporate with developing classes and tutorials.”

“Even if I'm an expert searcher, I enjoy classes where I can improve my efficiency/skill even more. The same with EBM.”

## Group 2

Writing grants | Analyzing and presenting data | Communicating results

Respondents felt they had intermediate level knowledge for analyzing and presenting data and communicating results and want to learn a little more. Some learners indicated these skills were not applicable to their job or that they already knew enough about the topic. Two comments sought advice on where to find poster presentation templates.

### Participants' current and desired levels of competency (Median ratings)

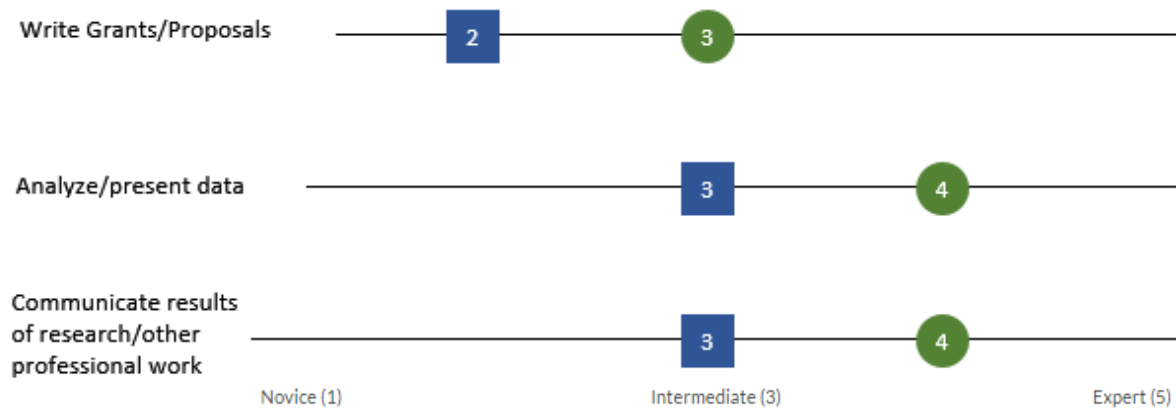


Figure 10: Skills and Knowledge Group 2

“As librarians become more immersed in doing research ...these are required skills and we are left on our own to find appropriate training opportunities, preferably at no cost.”

“I don't so much care about any of these, since they're a bit more outside my everyday work duties. Of the three, grant writing is probably the most interesting”

“I feel like I need a good foundation in conducting and reporting research. Sort of a research overview and then sessions devoted to each stage of research.”

“Visualized data” is a buzzword I think I need to understand better.”

“Grant writing skills are increasingly important as ways to support programming and resources.”

### Group 3

Outreach | Consumer Health | Mobile Apps | Social Media

One learner described skills in Group 3 as “items that fall under the ‘not enough time to delve into but there is an importance/need to these topics in our community.’” Learners felt their current proficiency level was intermediate, with one exception: evaluating outreach. Learners are evaluation beginners in need of an advanced level proficiency. Evaluating outreach was the only topic in this group to have a two-point proficiency gap.

#### Participants' current and desired levels of competency (Median ratings)

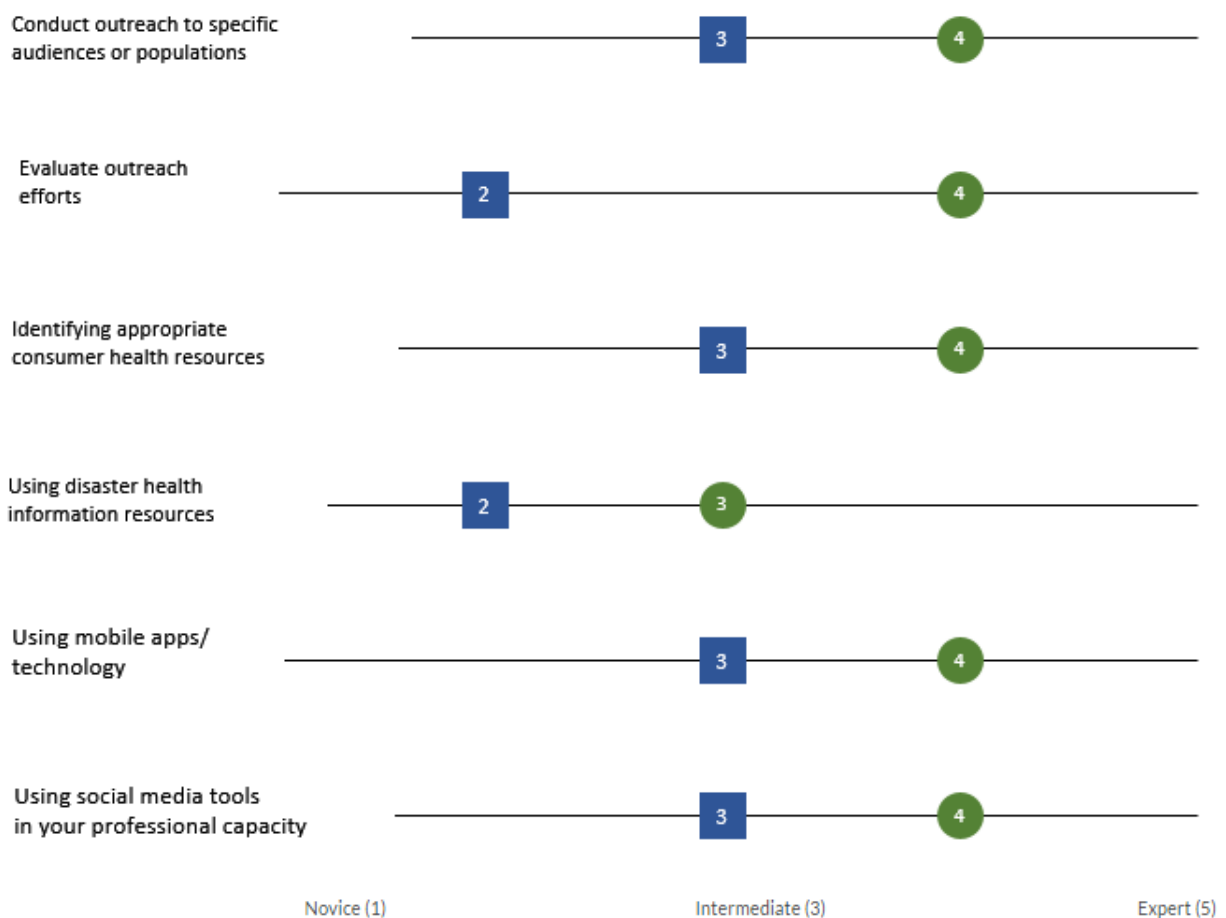


Figure 11: Skills and Knowledge Group 3

“Need more training on evaluating outreach efforts - I do a lot of outreach but don't always know how to determine ROI or evaluate success of the effort/campaign”

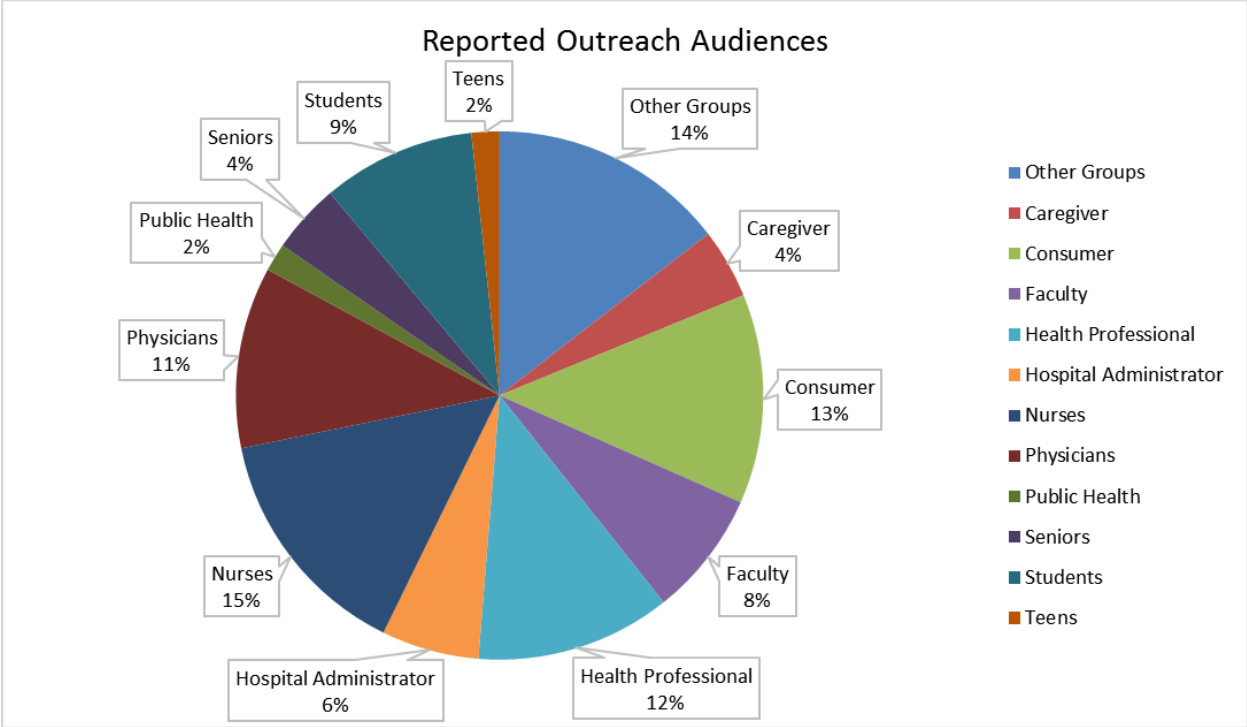


Figure 12: Outreach Audiences reported by learners

We asked learners to indicate their target outreach groups in the comment section for this question and received 93 comments. Reported outreach audiences include nurses, physicians, health professionals and consumers such as caregivers, teens, and seniors. Cancer patients, incarcerated populations, biomedical researchers, homeless, low income, nonprofits, Native Americans, non-English speakers, LGBTQ, African Americans, Hispanics and Haitians were also mentioned.

“I’m particularly interested in how to reach online students or faculty who never or rarely come to campus.”

“I think disaster preparedness is a very niche area that NN/LM has focused too much on. Consumer health is interesting, but I don’t work with the public.”

“I want to learn how to segment the service population effectively thereby targeting programs through marketing efforts to specific populations.”

## Group 4

Bioinformatics | Research Data Lifecycle | Open Science

Group 4 includes science-related skills and knowledge. Notable gaps appear for responses to bioinformatics and open science. Most notable is the three-point gap in learning for open science. Learners have a beginning grasp of the topic, and desire expert-level understanding of the open science universe, including open access and open data, and issues related to sharing data.

Bioinformatics is the only Skills and Knowledge topic that scored a current proficiency of 1 - Novice level, some comments expressed basic unawareness of these tools. Learners desire an intermediate proficiency level with using the basic functions of bioinformatics tools, which we described as NCBI databases such as Gene, Nucleotide and BLAST.

### Participants' current and desired levels of competency (Median ratings)

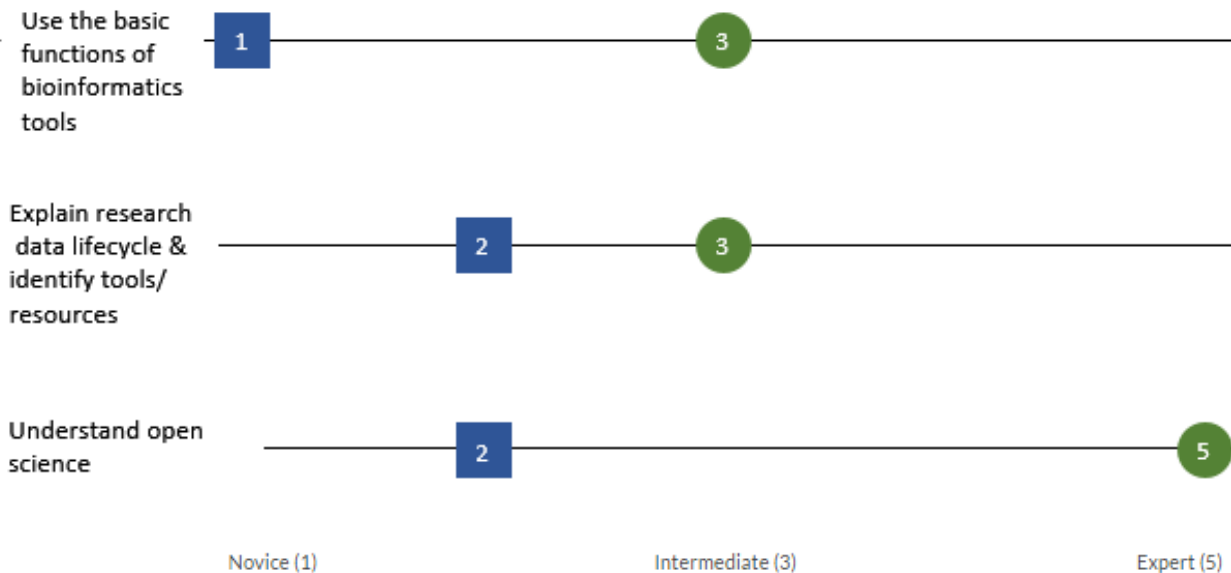


Figure 13: Skill and Knowledge Group 4

"I don't know much about the areas listed above, but I would like to know more. So far I haven't used these skills in my current job, but it is always nice to know."

"I'd like to learn more about data access, retrieval and management so that our researchers have an on-campus expert to offer help."

"I support the nursing research committee so would appreciate developing skills to support research."

## NLM Resources, Products, and Databases

The NLM Resources, Products and Databases section asked learners to rate their proficiency with NLM products. We derived clusters from a list of over 200 resources, products and databases from NLMs database directory.<sup>3</sup> We present results in the order asked on the needs assessment, along with representative comments. We list specific NLM Products for each cluster beneath results.

### Group 1

PubMed | Clinical Resources | ClinicalTrials.gov | Full text | Drugs and Devices

Learners want to be experts in PubMed, clinical information resources and full text access. They want to know more about drug and medical device resources, but don't desire expert level proficiency. Respondents view themselves as advanced PubMed users, but they would like to learn more.

### Participants' current and desired levels of competency (Median ratings)

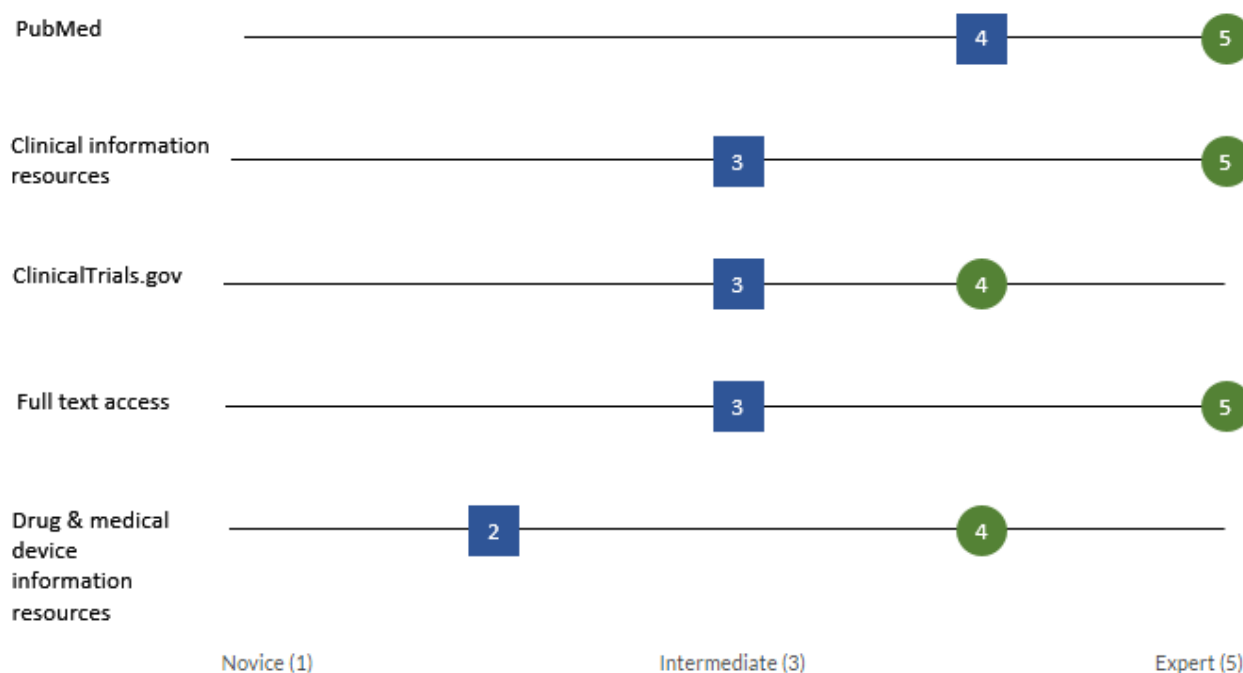


Figure 14: NLM Resources Group 1

NLM Product Cluster	Example products included
Clinical information resources	PubMed Health, PubMed Clinical Queries, Practice Guidelines
Full text access	DOCLINE/InterLibrary Loan, LinkOut, PubMed Central, Bookshelf
Drug and medical device information resources	DailyMed, LactMed, Pillbox, AccessGUDID

<sup>3</sup> [https://wwwcf.nlm.nih.gov/nlm\\_eresources/eresources/search\\_database.cfm](https://wwwcf.nlm.nih.gov/nlm_eresources/eresources/search_database.cfm)



“I think it's fair to say at this point that I don't have a lot of expertise in the specialized NLM databases, e.g. DailyMed, LactMed, Bookshelf etc., so education on these would be helpful.”

“I use all the above in my daily work. Would like regular refreshers/updates. I use all these routinely and find it hard to adopt new strategies and make routine. Maybe comparing different methods and showing one to be more efficient would help.”

“I can't stress enough that there needs to be more in-depth instruction on how to use PubMed. They can't just be classes that are like "Oh here is a cool feature. You might use this once in a blue moon..." We need reinforcement of step-by-step advanced searching. I've talked to many librarians who are self-taught and want to know more - so many of us are asking: Am I doing this right??”

## Group 2

AIDS | Genetics | K-12 | Toxicology | Health Services Research | Public Health

This is not an illusion; learners ranked their current and desired proficiency levels for all of these databases the same. Our learners are beginners at these databases, and desire an intermediate understanding. For many users, these are likely 'nice to know' resources. One idea from the comments was to offer summaries for these resources.

### Participants' current and desired levels of competency (Median ratings)

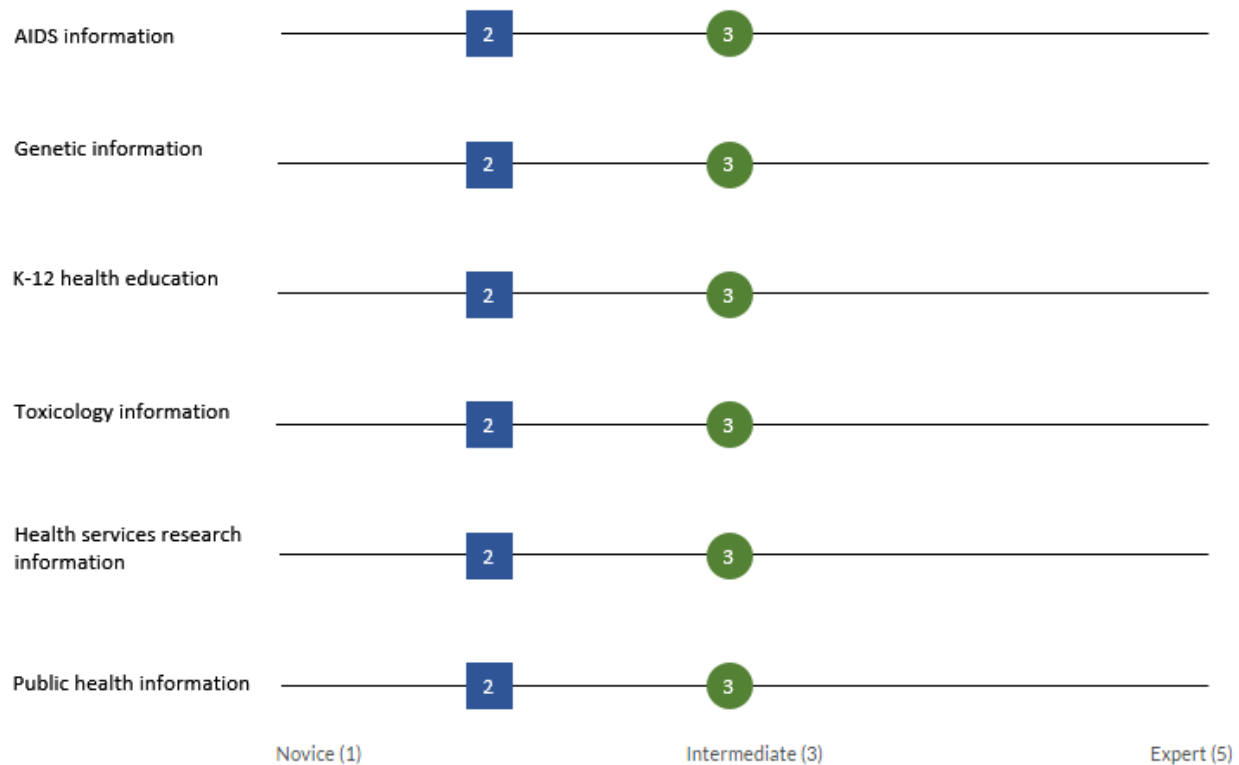


Figure 15: NLM Resources Group 2

“I haven't used many of these but feel able to learn how to use with ease.”

“Mostly I need the Cliff Notes approach to these various databases.”

NLM Product Cluster	Example products included
AIDS information	AIDSInfo, AIDSsource
Genetic information	ClinVar, Genetics Home Reference, GeneED, Genetic Testing Registry, MedGen
K-12 health education	ToxTown, Tox Invaders, Tox Mystery, History of Medicine online activities and lesson plans
Toxicology information	TOXNET, TOXLINE, TOXMAP, Hazardous Substances Databank, ChemIDplus
Health services research information	HSRProj, Health Services Technology Assessment Texts (HSTAT)
Public health information	HealthyPeople 2020 Structured Evidence Queries, American Indian Health

“I believe I'm at the level I need for my position. Plus, there's a lot of teaching available on a regular basis.”

“Consumer health is not in high demand but as it occurs, the need to provide that info is essential.”

“I only just learned about some of these resources recently, so I need to learn as much as possible about all of them!”

### Group 3

Public Access Policy | NLM data extraction | UMLS

Respondents were novices about tools for extracting NLM data and UMLS vocabulary and ontologies. The average learner desires intermediate level knowledge of these topics. Learners have beginner level proficiency with public access policy programs and tools, but desire only intermediate level of knowledge. Based on the comments for this section, any training on these resources should describe how these tools are likely to be useful to our target audiences.

#### Participants' **current** and **desired** levels of competency (Median ratings)

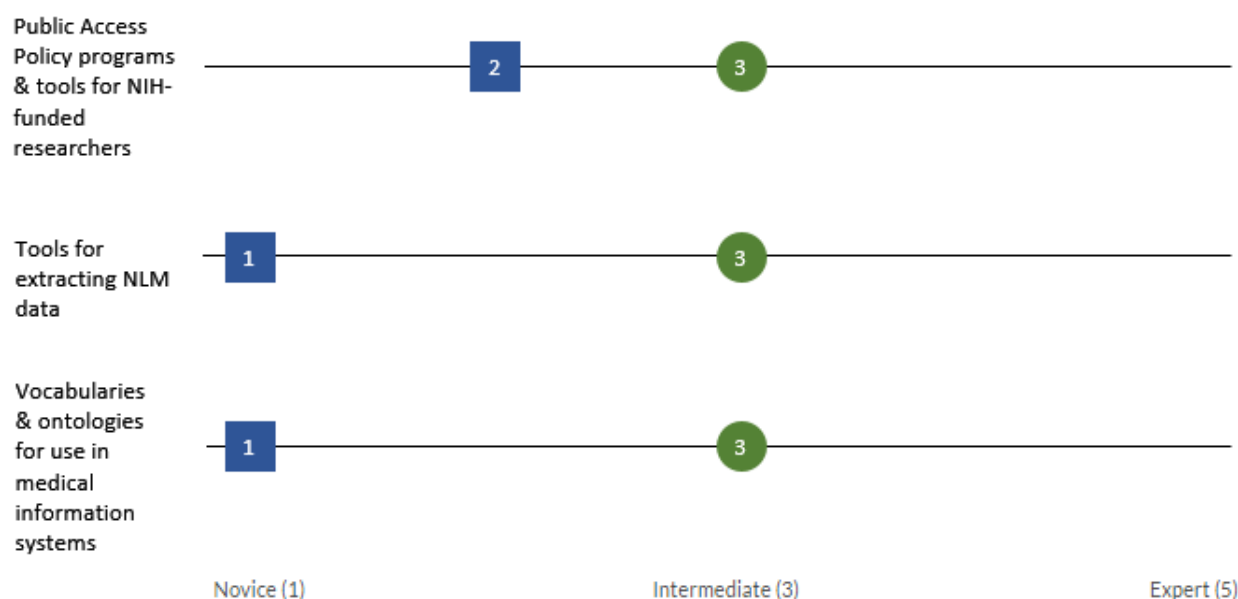


Figure 16: NLM Products Group 3

NLM Product Cluster	Example products included
Public Access Policy programs and tools for NIH-funded researchers	NIH Manuscript System, My Bibliography, SciENcv
Tools for extracting NLM data	eUtilities, MedlinePlus Connect
Vocabularies and ontologies for use in medical information systems	Unified Medical Language System and its source vocabularies

“I haven't encountered these resources and don't know enough about them to even know whether it would be helpful in my role as a solo hospital librarian to be familiar with these resources.”

## Where do our learners want to be experts?

Our learners want to be experts about instruction, literature searching, evidence-based practice and open science. They want expert-level proficiency with PubMed, Clinical Queries and PubMed Health, and full-text resources and programs like PubMed Central, DOCLINE, and LinkOut. They know the most about PubMed and literature searching. Future instruction on PubMed and literature searching should consider our learners advanced, but also acknowledge a steady influx of new and self-taught PubMed users. As one learner commented, “I can't stress enough that there needs to be more in-depth instruction on how to use PubMed...so many of us are asking: Am I doing this right?”

### Skills and Knowledge:

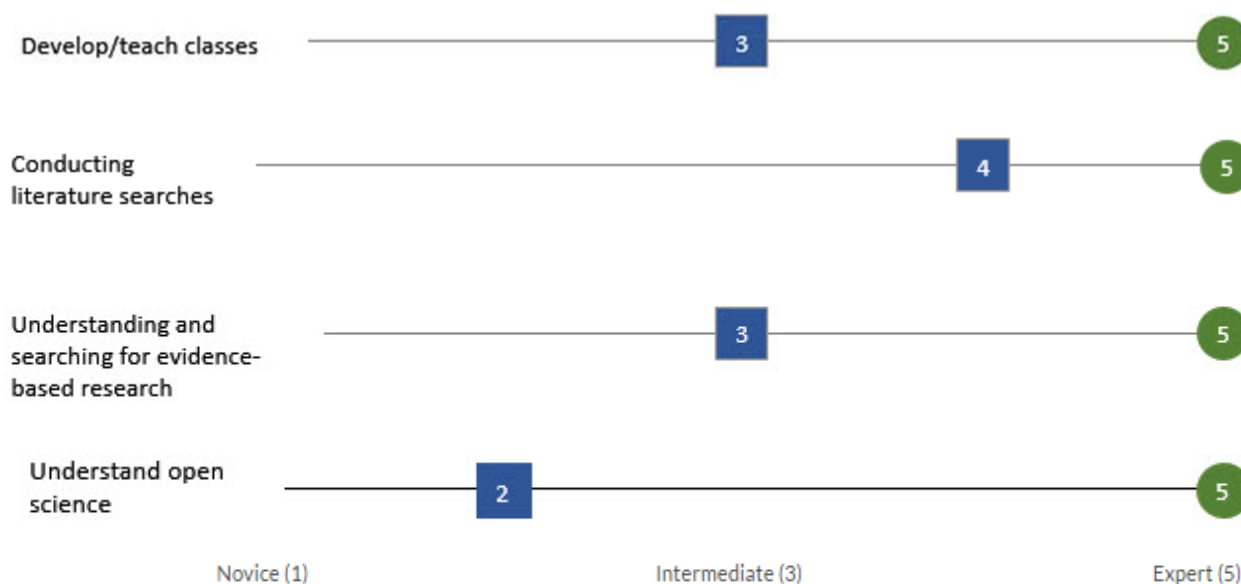


Figure 17: Expert Skills and Knowledge - Desired

### NLM Products

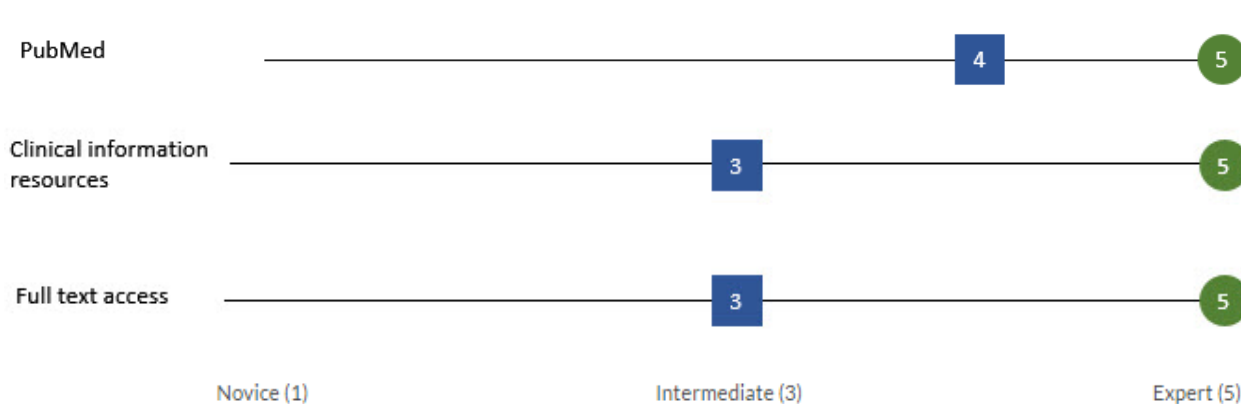


Figure 18: Expert NLM Products -Desired

## Where do our learners consider themselves novices?

Our learners do not know much about bioinformatics, NLM data extraction tools, and medical information system vocabulary and ontologies. Nor do they want to be experts. However, they do want to have intermediate-level knowledge about these topics. A two-point gap between current and desired knowledge indicates that beginner level courses are most appropriate.

### Skills and Knowledge



### NLM Products

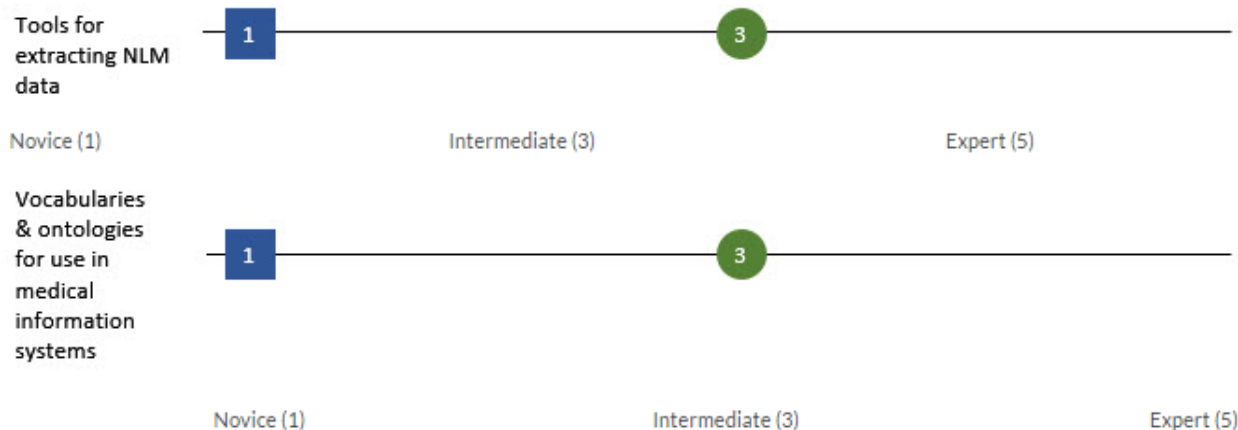


Figure 19: Novice Skills and Products

“Informatics is broadly defined. Informatics training specific to disciplines: nursing, public health, allied health, social work, consumer health...AMIA has a certification in informatics. How can NN/LM network assist in the process?”

## Everything Else

We asked learners “What additional training do you want, but are not receiving?” and “Is there anything else you would like to let us know about the type or format of training you would like to see offered by NNLM?” We received 216 additional write-in responses. Learners frequently praised the webinar format, suggested unique classes, and offered general comments on learning environments, consumer health, and evidence-based practice. A full list of write in comments is available on page 43.

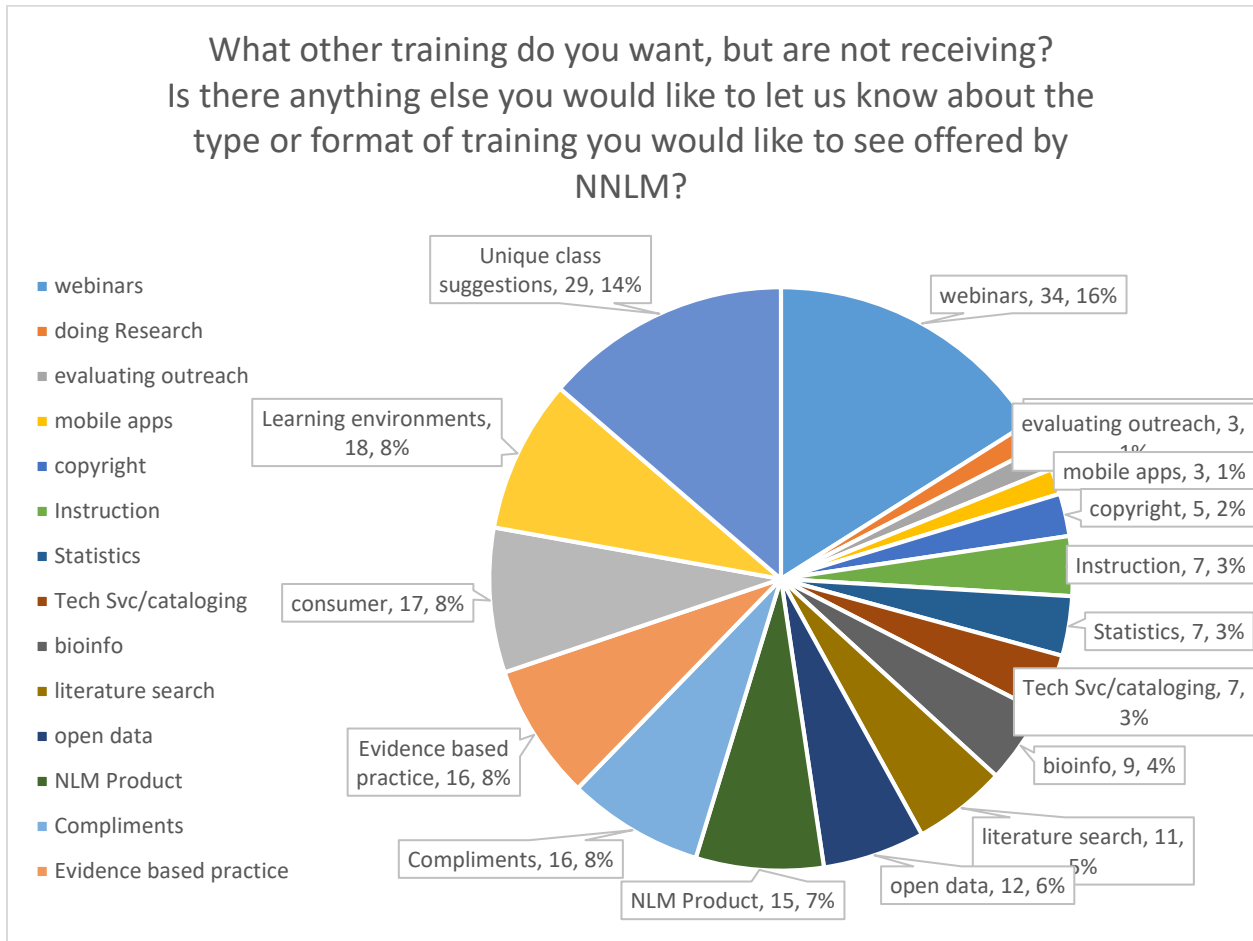


Figure 20: Write in response themes

## Top 6 areas for skills & knowledge training & recommendations

### 6. Using the basic functions of bioinformatics tools (e.g., BLAST, Gene, Nucleotide)

Most of our learners are novices and want an intermediate level of understanding of bioinformatics as it pertains to librarians. The NTO is developing a new online course on the basic functions of bioinformatics tools for librarians and, in the interim, offering bioinformatics webinars in partnership with NCBI.

### 5. Creating videos and web tutorials

Our learners are beginners at creating online content, and they want to be advanced. In addition to providing training through the NNLM, we can increase knowledge about online content creation through blog posts and a sharing outside training resources. A challenge with creating online content is the fluctuating and diverse universe of tools and software for online content creation. We cannot be experts on all of these tools, but we can share developments in the field and point to existing resources that fill this need.

### 4. Evaluating outreach

Respondents desire advanced knowledge on how to evaluate outreach. NEO provides a rich collection of resources on their site, including Evaluation Guides, *Shop Talk* blog posts, and training materials including slides and handouts for NEO classes. Promotion and utilization of NEO resources and training materials throughout the NNLM is critical to increasing learner knowledge in this area.

### 3. Understanding and searching for evidence-based research

It is no surprise that the average NNLM learner has an intermediate familiarity with evidence-based research, but our learners want to be experts. NTO added an evidence-based research class to the series *PubMed for Librarians*, while SCR's webinar series *The Pieces of Systematic Review with Margaret Foster* offers training on systematic reviews on a national level. Any training development in this area should focus on moving students from beginner to advanced or expert.

### 2. Developing and teaching classes

Our learners have an intermediate grasp of instruction, but want to be experts. The NTO is addressing the need to through the *Teaching Topics* instructional series and regular blog posts on instructional topics and tools. The NTO will unveil a dedicated web page for instruction resources later this year and develop a class on adult learning and instructional design principles.

### 1. Understanding open science concepts

Open Science has the widest gap between current and desired proficiency level. Our learners have only a beginning level understanding, and want to be experts. NNLM entities should develop a coordinated response to address this learning need. Whether organizing and pointing existing resources or developing new education opportunities, health sciences librarians will likely look to NNLM for authoritative training in this area, and we should have a coordinated strategy to address this need.



## Top 6 areas for NLM Product training & recommendations

### 6. Clinical Information Resources

Our learners are intermediate users of clinical PubMed sources such as PubMed health, Clinical Queries and Practice Guidelines. Training development should focus on advanced skills and how these tools fit into the evidence-based research paradigm. However, comments also recognize the need for continued training for new health sciences librarians or others inexperienced with these resources.

### 5. Full text Access

Our learners want to be experts at describing full-text access options. They have intermediate knowledge already. This cluster is a good candidate for short descriptive videos or hands-on self-paced tutorials. A modular self-paced video series with CE credit would increase learner knowledge of resources and programs such as PubMed Central, DOCLINE/ILL, LinkOut, and Bookshelf. It would also acknowledge the need for self-paced, asynchronous learning opportunities for learners who have difficulty attending live webinars.

### 4. Drug and medical device information resources

Our data suggests that learners are not familiar with NLM drug and medical device resources such as DailyMed, LactMed, Pillbox, AccessGUDID, possibly because some of them are relatively new. Learners indicated a beginner level knowledge, with a desire for advanced. Consider promoting awareness of this cluster by featuring them in the coordinated monthly webinars or creating short video or interactive tutorials on these resources.

### 3. Tools for extracting NLM data

Our learners have novice knowledge with a desire to gain intermediate level understanding about NLM data extraction tools. NLM (MMS) initiated introductory webinar courses on NLM data extraction tools such as eUtilities in 2016. A challenge for this cluster is the need for understanding about API and programming, which many librarians do not possess. Collaborative efforts between NLM and NNLM that combine training on resources in this cluster with education on open science and open data could improve the expertise in these critical areas for our users.

### 2. Vocabulary & ontologies for use in medical information systems

Our learners have novice knowledge with a desire to gain intermediate level understanding about source vocabulary and ontologies used in medical information systems. Similar to data extraction tools, this cluster could be grouped with training on open science and open data, providing the context and rationale for learning about these tools.

### 1. PubMed

PubMed will always be a top training priority. Our evidence indicates learners are advanced, and they want to be experts. Focus training on step-by-step advanced searching, but acknowledge and continue to offer basic training for beginning PubMed users.

## Conclusion

The training needs assessment provides self-reported proficiency levels of potential NNLM class participants on over 20 topics and may provide guidance to steer NNLM educational offerings for the next four years. While the proficiency scores are self-ratings, it does suggest what level of courses users are seeking. It is important to keep in mind that our results are median scores – every topic was of great importance to someone, even if it did not make the national top six.

Our learners enjoy online webinars when face-to-face training is unavailable and appreciate on-demand offerings, whether as class recordings, short videos or interactive tutorials; especially those with unpredictable schedules. They want to be experts or advanced at many things, but prioritize topics that are tightly connected to work they are already doing.

We encourage NNLM to address needs of the novice, but also to create opportunities that increase intermediate proficiency rankings to expert level. We should continue to use a variety of instructional formats that allow students to access training as needed. For topics where learners are novices, training should include not only how to use the associated products, but also the context for how it may be useful in their work. For resources that respondents indicated a need for only intermediate proficiency, NNLM should consider whether abbreviated summaries or guides may meet the needs of most students. Learning about open science concepts is of greatest need for these respondents, so NNLM should advance a coordinated plan for developing librarians' skills and knowledge in this area.

As we move forward with development of training opportunities, the results of this assessment should inform our priorities. We hope this document and the associated data will support NNLM entities as we consider how to best collaborate with each other and our NLM partners to address the needs identified here.

We offer our sincere thanks to our partners at NLM, NEO, and throughout NNLM for advising, testing and distributing the needs assessment.

## Training Needs Assessment Working Group

Jessi Van Der Volgen

Molly Knapp

Rebecca Brown

Kate Majewski

Sarah Helson

## Appendix

### Comments

<b>Why do you attend continuing education classes? Comments</b>
A medical librarian needs to know a lot about all topics- so keeping up is VITAL
All of these are applicable.
All of these are compelling reasons, and my answers would depend on the day and context asked.
As a solo librarian I rely on CE classes to keep my updated. Frankly, I like that someone else presents me with an overview rather than piecing together information myself from multiple sources. I suppose that's somewhat lazy, but as a solo librarian it makes me more effective in an efficient manner.
Connections with others with similar interests, (but outside of my field) has been a need as of late, due to my focus on innovation and current technology trends
Definitely top reason is to improve skills for my job.
Funds for travel to CE is dried up. Completely. I'd like to connect with librarians in other ways to make up for this loss of interaction.
Getting CE credit is a good feature however
I also get new ideas and become energized when I take a GOOD class. One that is useful, well designed, organized. :-)
I am a special librarian but it has been announced that my position may be cut in the near future. I have always been interested in medical librarianship and have worked to secure my CHIS 1-2 and am about to apply for the Disaster Planning specialization soon. These workshops cross lines for medical, public, academic and special. Very solid resources for librarians looking to expand their knowledge and areas of expertise. Thank you!
I am always looking for skills to help take care of patrons.
I am at a point in my career where I don't need points but CE fills a knowledge gap, which allows me to do a better job.
I coordinate PD for school librarians and other K-12 educators. My goal is to help inform K-12 educators on the resources available through NN/LM.
I do not get a lot or any travel/CE money from my hospital to attend away classes or CE classes so this is one of the best ways to gain and maintain current knowledge and gain new knowledge affordably.
I do not presently hold AHIP certification, but am working toward it.
I don't participate in continuing education
I have AHIP points from so many sources that CE points are a bonus.
I haven't taken any recently... would like to
I work with children in a public capacity and I think the need for disaster preparedness is huge. The world as it is, is very uncertain.
I'm an LIS educator and it's crucial to keep my awareness and skills up to date.
In order for me to teach our university students how to use PubMed properly and efficiently, I need to learn how to do it!
It is also required for my job, but I could only indicate 3.
It is good to hear from knowledgeable people how they apply the "new" technology in our Library setting.
My favorite part of CE courses is interacting with others who work in or are interested in the same content.
My learning is entirely for my own benefit. My company doesn't support anything other than internal training.
NA
Networking is probably my top reason.
The classes are very helpful for staying current with all the changes in healthcare librarianship.
To keep current with information, trends, changes. To stretch my skillset.

To refresh skills
To support community college students
<b>Thinking of the environment in which you would most likely attend a live web-based class, which of the following apply? (Select all that apply): Comments</b>
A lot depends if it is a live web-based class for solo learning or in a group.
a stable software would be great. I have a problem every time a group changes method of delivery and i need to update software due to computer restrictions.
A toll-free dial-in phone number is appreciated!
Although I don't currently have a headset with a microphone, it would be my preferred method of participating in a web-based class. I find using the telephone awkward.
I also have access to a projector and large screen with audio but no microphones. This works for more than one attending a presentation.
I am a solo librarian without an office so participating in a live class can be problematic for me. I have no door to close.
I can also meet with medical librarians as a group if one facility is hosting in my area.
I cannot play sound from my computer but I use headphones, I'm in the middle of a library and am often called away to help patrons or interrupted. I also can not speak aloud due to not being in a private space. My laptop is too slow to run a lot of things and there is no where to go in the hospital that is open to me to use so no need for mobile.
I could buy more equipment if needed.
I don't understand this question.
I greatly prefer webinars where I don't have to get audio from the phone wherever possible.
I hate smart-phone interaction - too small a screen
I have multiple options depending on the day and needs.
I have no private space where I can attend a live web-based class without interruptions from patrons.
I have several live webinar viewing options available to me.
I have to continue interacting with patrons while at my desk. Microphone jack is inconveniently located.
I much prefer participating in web-based classes that include sound via the web and don't require a telephone call-in.
I only sometimes am comfortable speaking aloud because I office share for part of the week.
I perform duties in other roles besides librarian, which makes it difficult to attend a live web-based class. I usually access the recordings.
I prefer to use a device that has a larger screen: desktop, laptop, or larger tablet. I dislike using cell phones b/c the screens are too small and most mobile views of webpages are AWFUL.
I prefer to view them as recordings, so I can stop, start and play back
I really love the ability to chat during a live web based class rather than live voice response from attendees. Chat is captured in a quick format. People tend to get to the point with text better than verbally. And there can be relevant side conversations happening that enrich the content without derailing the presenter. (As a presenter, I benefit from reviewing all of chat after I'm done. It is generally a rich conversation where I get to learn as well).
It depends on the time of day and the day of the week...
May be able to have an environment where I can speak aloud, depending on room availability.
Most used device would be laptop, but many apply
My office is adjacent to the library/physician's lounge space and is pullman office where people walk through to get through the library. Its not private per se.
my office is in the library, which is a designated quiet zone, though that's up for debate for some students.
NA
None of the above. Part-Time at Reference Desk.

Often can play sound, but don't have a microphone. Also, because of shared space, it is easier to listen than to talk. Or to chat through typing so that I don't disturb others.
Sometimes I can relocate if I need to speak..
The environment where I can speak aloud is usually the drawback for my taking a live web-based class (or meeting). I don't currently have an area where I can speak aloud without interfering with my coworkers' environment.
The online classes through Moodle, Orau learning and web/teleconference has worked well. The first two are the most flexible with time and I enjoyed. Most of my MLS classes were online/ classroom mix so not that unfamiliar to me.
The time needs to fit with my work schedule. Cost is also an issue for trainings in general.
These are difficult to work in to a work day -
Time of day is reasonable. Anything before 1 pm EST makes it extremely difficult for me to attend.
very old computer! hoping for an equipment update, but not holding my breath!
We often do not use our equipment for talking vocally; we rely on chat functions for interactivity. We can use phone but it is more convenient not to.
<b>How do you prefer to learn about new resources or acquire new skills?: Comments</b>
2- is more a lower prefer. Usually you are unable to ask your own question..and the instructor is unable to deviate from the slides...but the majority is really good. The quality of speaker are great.
As a solo, sometimes you just have to hang out with the tribe. I tend to learn more by interacting than passively watching and listening. What can I say, I'm a relic...
Asynchronous classes are a bit of a challenge because I have to remember to fit them in to my schedule.
Classroom instruction is the most effective, but hard to find the space and time. I love to read to learn, or do interactive tutorials, even more than I like webinars.
Face-to-face classroom instruction is the best way to learn in many respects, but it requires travel which is cost-prohibitive. That's why web-based instruction is much better.
Handouts or slides are great in conjunction with webinars. Stand alone handouts are not useful, though.
I am a big fan of online instruction - it's frustrating to find a great class only to learn that it's in-person only and I can't possibly get there. It's also great to have access to a recoding of a webinar in case I cannot view it live because of a commitment I cannot change. The Coursera-type classes are great too, I take the free ones regularly.
I am a passive learner. I don't like group activities in a face to face class.
I am a solo librarian and often cannot attend live webinars so appreciate when they are recorded, especially when MLA CE credit is offered.
I am in the library without an office and have to constantly stop and start again. Webinars go past and I have to keep going back.
I am indifferent to several of the above choices. I want accurate information and the opportunity to ask questions and have them answered. The modality doesn't really matter.
I dislike the asynchronous classes because I never get around to attending. It's better to have a set time in my calendar as for a live webinar.
I do much better in an face-to-face environment.
I find asynchronous classes difficult to complete.
I guess it depends on the skill I am trying to learn. Although short videos are convenient, they may not work more complex topics, unless they are broken up into multiple short videos
I have reference duty for hours at a time so can't always attend live webinars or face-to-face. Something that I can set my own schedule is always better for me.
I like face-to-face instruction but it depends on how far I have to travel to take advantage of it.

I like formats that are flexible and can fit into my schedule. I like it when events are recorded so I can view them again later, or at a time that my schedule allows. I like the option of being able to ask questions. Self paced online classes are flexible, but I often don't finish them unless I am highly motivated and my schedule isn't too crazy.
I like the idea of an asynchronous class, but I never manage to complete such classes because other demands of my job overtake my time.
I like the opportunity to ask questions while the demonstration/class is being held and an answer is given. The give and take is always invaluable.
I like to access digital handouts for webinar presentations - whether live or recorded.
I only slightly prefer F2F instruction because it tends to be just Sage on the Stage. I like the ones that have some interactive component or skill learning, It would be nice to have a "certificate" that can be put on CV to show that skills have been learned.
I only slightly prefer handouts or slides as these can sometimes be meaningless unless one has attended the class.
I prefer face-to-face classes, if that's not possible an online class will be my second choice.
I prefer handouts/slides ONLY when they accompany instruction... NOT solo
I prefer learning that has some sort of oversight or component that keeps me on task. If it is left solely up to me, I have so many other things taking up my time that I usually won't do it or complete it.
I prefer live, but anything that has been carefully planned can be good. I like there to be some voice instruction.
I think every webinar should be recorded. I may have meetings or work that conflicts with the scheduled live event.
I welcome all of the options above.
I would always prefer face-to-face classes, but this is seldom possible, so webinars have become my default.
I'm flexible! I like to be in live webinars, but sometimes recorded webinars are more efficient (can view when convenient). Given the choice of asynchronous instruction, I prefer it over face to face, although I really like face to face, it is just not always convenient or affordable to travel or possible to schedule.
Interacting with other humans is most preferred
It is almost impossible to attend courses out of the hospital. It is also difficult to attend programs live since the timing isn't great sometimes. I cannot leave my post to devote an hour to a class, so it is best for me to be able to attend when I have time.
It is difficult to break away from a patron or an urgent need to request an article for patient care because a webinar is on - So, taped works better- I can come and go and fit it in to my day or the next day....
It is hard to commit to actually making the time to do things or go to things unless they are live. Often they end up being on the bottom of my list forever, because there are other pressing live needs.
It is hard to find the time for long-format asynchronous learning (as opposed to short tutorials)--whether an online class or a recorded webinar. It is easier to do it when it is live and therefore scheduled on my calendar.
It really depends on the content/skill I'm trying to acquire. If the content would benefit from discussion from others in the class then I prefer face-to-face classroom discussion or live online webinar. If the content/skill requires visually showing then the other methods are good. I like handouts/slides along with a presentation but not necessarily as a means to acquire new skill/content.
It's nice to have a live class which is supported and reinforced by self-paced materials or materials that can be reviewed later.
Like asynchronous since obligations seem to clump, often around the times an online class/webinar is scheduled. I like handouts/slides and recorded webinars to refer to later.
Most of it has to do with the question of time --when can I access it in relation to my work.
Most webinars are deadly - in order for them to be worthwhile, presenters need to understand the medium and how to use it, not just show a couple of slides and give a speech.
My Comments would vary based on the topic of interest, and the time available during that week

My responses are because I have very limited time for learning, little control over my schedule, and frequent interruptions.
NA
Nothing replaces teacher-class, hands-on teaching
Ok, my choices are all over the place. That's because, my professional role is to provide PD for K-12 educators. Many of our school districts prefer instructed webinars where participants are able to ask questions, provide feedback, and perform tasks/activities.
Question 3 was difficult to answer because there was no option for "Neither dislike or Prefer." Also, "prefer" means I like something better than something else - so in the case of Short Videos, I couldn't answer whether or not I prefer it because I don't know what I prefer it to- Am I preferring it to long videos? Am I preferring it to in-person classes? This is a really bad question
Recorded webinars and videos are fine, but I find it much harder to carve out time to watch them. For live webinars and face-to-face classes, I'm much better about scheduling the time to do them.
Scheduling issues at work make it a bit more difficult for face to face and live webinar. I prefer online classes, webinars recorded or live. In class is difficult and locations may not be convenient.
Short videos are OK if they have pause and rewind capabilities
Short videos CAN be great for learning skills (like knitting), but I don't think they usually have enough depth for work-related education.
Sometimes it's hard for me to be available during the "live" session but I really appreciate having things available after the fact. Self-paced can also be easier to deal with in an academic environment where I can't predict in advance how busy the day will be.
The format depends on what I need to learn. I actually like self-paced online if it is a technical skill that I expect to be difficult. But otherwise-I prefer group things.
The online classes can be too time-consuming
Very difficult to engage in CE during work hours. Best in the evening at home.
Video is strictly limited in my place of work. Vimeo is allowed; youtube is not.
webinars because I'm out here in the Pacific, recorded - cause can't always get to work and access something at 6 a.m., asynchronous online - for in-depth subjects like that one about Toxnet genetics
<b>Skills Group 1 - Literature searching   Evidence-based research   Instruction skills   Web content creation</b>
7. I am currently exploring "join me" as a cost effective way to hold an on-line training. I want to develop a short on-line training for how to use a Spark-up reading device in the home to increase dialogic reading and then donate 10 devices and track home use. Without start-up funds and allies in the larger community, it presents me with complexities. I need a media mentor!
As a hospital librarian, time..time..time is something I do not have. If I want to learn or do more, I have to do it outside work or during my lunch break and realistically, after work, I am tired...tired..tired. I feel that I am keeping pace or up with the new evidence and new changes and I've only been a librarian 13 years.
As a technical services librarian, most of these would have more to do with the back end database side of things, and programming, rather than info literacy and patron aid.
Creating videos and web-based tutorials will be difficult given the varied tools to learn. The best I can see is best practices.
Creating videos or tutorials that will be used and watched - that is the ticket. I know how to create them. How do I get them watched?
Current position doesn't require/have a need for developing and teaching classes or creating web-based tutorials.
EBR and literature searches are areas I would like to improve my skills. I would be interested in more classes in these areas.
Even if I'm an expert searcher, I enjoy classes where I can improve my efficiency/skill even more. The same with EMB

For things like web tutorials, it would be the web master who creates web tutorials if any for the hospital . I would not be allowed to place my own things on the hospital intranet/internet (or perhaps marketing). But I agree that we should learn and know as much as we can about web tutorials or other web based items we can create. Things can change in the future. :)
Have done a few library instruction classes on English and communication topics, very generalized. Need to improve competency to act as back-up and to assist with virtual reference. No knowledge of video or web-based tutorials at all.
Help with ADA requirements!
I always want to be a little bit better than I am, but I don't need web-based tutorials very much.
I am a new solo hospital librarian who is still learning a great deal about the job and what is needed from the medical librarian.
i am a solo librarian who teaches and provides reference and research assistance. Anything and everything would be helpful.
I am an administrator and don't need to hone my library skills
I am doing much more with medical education and I'm interested in the last two topics.
I am particularly interested in learning more about study designs, critical appraisal, and statistics: --power --sample size --magnitude of treatment effect (RR, RRR, ARR, NNT) --confidence interval
I am very skilled in these areas but out of practice - I could use skill updates (software training) and be tasked with creation (I currently have no fixed demands)
I am not in reference but do need to teach occasionally and wish my skills in that area were stronger.
I believe I'm proficient in literature searching & evidence-based research. I would like to learn how to incorporate new technology into my teaching - perhaps there will be questions about this ahead in this survey, but just in case.... I would benefit from knowing what new technology is available to use for teaching and how to use it. I can insert videos, music etc into a PowerPoint and I've taught courses on Moodle and Blackboard, but goodness, what else is there that is new and refreshing?
I do a lot of teaching already and have made videos and am familiar with instructional design theories. I think it's the delivery of classes under restricted circumstances (like what most of us work under) is most important to dig into more.
I don't necessarily expect NNLM training to target expert level skills in these areas, past offerings have been very helpful. However, providing additional suggestions for where to go after training would be useful.
I feel that I could use improvement in all of these areas, but literature searches and evidence-based research are probably most closely related to my current job duties, and therefore more important to me currently.
I feel that I need more training that will increase these needed proficiencies to be highly effective in my job. I depend on your training offerings since that is where I get most of my continuing education.
I have experience doing all of the above, but I would like to increase my proficiency.
I have given workshops and also participated in a webinar. I would like to do this better and more efficiently.
I have some experience in all four areas, but would like to learn about other methods that are out there to incorporate with developing classes and tutorials. I am especially interested in how I can assess my skills and knowledge in these areas, as well as how I can assess the impact of my work.
I have very little experience with teaching, but I'm expected to teach in my position and would appreciate additional training.
I like to acquired skills to develop videos in Camtasia or other similar type of software
I teach a lot of classes face to face so always happy to learn new things. Do very few webinars etc
I used to be proficient at designing web-based tutorials, but it has been a long time. The other skills above are used a lot in my current job, but not so much the web-based tutorials. If I had the tools at hand, I would do it, however.



I work with teens in a public library. They don't seem to "get it" that you need to find reputable info online, not just "google" & read the first hit you see. I'm not sure how to explain that effectively. ALSO: I have trouble finding reputable resources when I do google, since our databases are clunky to use and can't compete with google's seeming easiness. Patrons won't use them especially when I still sometimes have trouble and I'm the professional!! IN public library settings, often the patron does not have time for me to do a robust search, they just want a quick easy answer. Frustrating. :-)
I would benefit from a hands-on class about creating video/web-based tutorials. Also, I am in a relatively new role where I am expected to do a lot more literature searching and would benefit from advanced training, even though I've taken some in the past. A good refresher would help!
I would like more classes on Evidence-based practice for librarians
I would like to learn how to create better video tutorials for our library You Tube page.
I would like to participate in courses that are designed to educate me in creating resources designed to be comprehended by individuals with low health literacy.
I would love to learn more and understand the creating of video's and other web-based tutorials
I would really like to become an expert searcher. I am proficient now, but there aren't many opportunities to learn more and take it to the next level. I didn't get much hands on experience searching in library school, so I'm mostly self-taught. Developing systematic review searches is a high priority.
I would welcome guidance in teaching/presenting, and creating video/web tutorials most of all.
I'd say I was between a 3 and a 4 for the first two. But here's the thing: I don't know what I don't know. I work solo, so it's hard to know where I'm weakest.
I'd very much like to learn about video / web-based tutorials, and about free / low cost software & technical issues.
If you offered classes on any of these topics, I would love to attend/dial into them!
I'm a new librarian in my first year of professional librarianship. Hands on experience is necessary for me to continue my learning process.
I'm an experienced online and classroom instructor, and I've created interactive online tutorials. However, I'm relatively new to medical librarianship and am not a member of MLA or AHIP. I would like to grow my expertise in searching and teaching medical lit.
I'm an expert searcher who has recently learned just how many more resources are available from NLM & NIH, and taking two recent Moodle classes has increased my knowledge of potentially useful resources.
In my current position, developing and teaching classes is the most important of these skills. In a future job, literature searches and evidence-based research might be more crucial, but my current job only requires that I understand how others perform them in order to assist and teach better. I have been in medical librarianship for less than a year and finished my MLS just before starting my current position.
I've done a lot of the above, but there is always more to learn and improve.
I've given 339 workshops of one hour or more (less than one hour I don't include in my count) so I rather know some of this stuff.
learning how to create videos or web base tutorial classes would be a plus
More on curricular issues, instructional design, project management, learning objectives, assessment, creating good cases and questions
Most teaching done through tutorials as no one has time for live teaching in a community hospital setting.
My role is primarily administrative.
Need EVB class in cities other than Pittsburgh maybe atlantic city or New York
Need experience in both of these areas
none
Numbers 6 and 7 are high career priorities for me at this time.

Our budget is tiny, so I'd like to learn about free or low-cost options available that are useful right out of the box, and don't require intensive instruction.
Physicians and staff find it difficult to impossible to schedule time to attend a class or webinar. Physicians prefer one on one training/assistance and have limited attention and information retention.
Proficient at teaching, less so at developing classes. Unsure I would ever have the need to create video/web tutorials.
Q4,5 & 6 - It depends on the database! Q7 - I did my first narrated powerpoint last spring. I need to do more, but don't really like it. I prefer to write it and create the slides, but have someone else do the narration / techie skills.
Since attending MLA webinar Designing Online Instruction: It's Not Just for Distance Education Anymore used PowToon successfully. Hoping to be more involved in instruction here in the future. The librarians do most of the searching so just barely keep my skill. Want to keep it at an intermediate level.
since I am a solo librarian it is kind of difficult to spend a lot of time creating videos and teaching classes, but I know it's a necessary skill that I may need in the future. I am more focused on the immediate need for information at the hospital now, so my focus is on providing good quality searches for my medical staff.
Skills that are needed to understand managing big data, and data management
Stats and critical and data analysis elude me. I've sat through a couple of classes but it doesn't take. My brain is either numbers-resistant or no one has hit upon a strategy to get through the old math-phobia.
Teaching and creating tutorials are not a big part of my job right now, so I do not devote much time to learning new skills in these areas. Should the opportunity arise to work on a project that requires these skills, I will definitely look into classes that address this need.
Thank you for the excellent classes/programs that you already offer!
Time is my biggest challenge for learning about or creating video or web based tutorials.
We have a Training & Outreach librarian to help us develop training programs and web-based tutorials, but I would like to know more about the techniques and technologies myself.
We use a lot of online instruction, mostly within an LMS. I have had some in-house training but can use more.
would like interactive project in creating online tutorials, where we use the software and end up with a finished project. Would appreciate developing a class too using software interfaces.
<b>Skills Group 2 - Writing grants   Analyzing and presenting data   Communicating results</b>
More practice and collaboration on writing winning proposals
"visualized data" is a buzzword I think I need to understand better
9 - 11 are not really part of my present job duties, but would be interested to learn more.
Again, in my current position, grants is a major aspect of my work. I do not actively present data or research, but would like the skills going forward in my career. I have been in medical librarianship for less than a year and finished my MLS just before starting my current position.
Although I have an interest and previous course work related to grant writing, it is not something I have ever been called upon to do in my current job, so I would rather focus on other areas like data analysis and publishing in which I have little experience but would definitely be skills that would make me feel more confident as I work with users.
Analyzing and presenting data is the most pertinent of the three to my job. I feel I could use significant improvement in it, too.
Analyzing data is interesting at this point, not required at my job.
As librarians become more immersed in doing research or assisting others do research these skills are required skills and we are left on our own to find appropriate training opportunities, preferably at no cost.
could really use more training on the medical research & publishing process top to bottom, overall; and also the process for medical librarians to publish.
Data analysis and visualization is key to my job.

Grant writing skills are increasingly important as ways to support programming and resources. This is an area I am interested in also.
Grants are essential for additional programming at our public library. Presenting/communicating data is essential - but I don't have a venue to do so. I have to do so when a time presents itself - usually in under 15 minutes either in conversation or during a meeting.
have not needed these so far.
I am a Ph.D. level scientist by training, so I have many years of experience with data analysis and presentation, as well as writing grants and manuscripts.
I am not sure why the system will not let me leave this page... unless it is to fill in this box
I am pretty good at this but tend to do the same thing.
I don't so much care about any of these, since they're a bit more outside my everyday work duties. Of the three, grant writing is probably the most interesting to me.
I feel like I need a good foundation in conducting and reporting research. Sort of a research overview and then sessions devoted to each stage of research.
I have never written a grant application, so it would be helpful to learn how when funding opportunities arise. I would also like to increase my presentation skills.
I have published a number of times but I do not feel that I am an expert and would very much like to have a class offered on this, surely at the basic level, but also intermediate. Most classes in all subjects address the novice, but those of us who have that information already need to have the opportunity to develop further skills.
I have successfully written grants, so I feel pretty confident in that area. I am terrible at statistics and interpreting complex data. I would like to develop my understanding and skills in this area.
I need to know how to summarize data from articles and other sources in a professional manner and present in a coherent manner. Right now I send a bunch of articles and links, but people are getting overwhelmed and I need to find a better way to streamline this process and get people to their answer quicker. Is there such a way? I feel like I am almost there but not quite. HELP!
I struggle with this as I do not know how to be brief, my mind tends to wander when presenting-nervous reaction. Hate presenting but can do it. Not sure what audience wants to hear and not certain they are getting the most of the data I have collected therefore they miss the "good stuff".
I would like leads on how to best fund a small family-based literacy initiative focused on assisting struggling readers. I need help weeding out how to design a usage survey for outcome data, should it be via texting, paper version, call in phone -line?
I would like to acquire skills and knowledge in these three areas in order to advise and help the faculty and students that I work with. My current position does not require me to get grants or conduct research, but it would be nice to have these so that I could do so if I found a topic or issue of interest.
I would like to work on presenting ideas and data searches in a better way. I am fine writing but I have trouble articulating verbally.
I would really like more education on Data Analytics and Visualization. I think this would be an excellent AHIP certification as many of us could use these skills for our faculty/clinicians and to tell the story of the library's collections, skills and expertise.
I'm much more comfortable presenting and have little knowledge about publishing professional work.
It would be helpful for me to have some understanding of grants, but it's not central to my work currently.
I've never written a grant and I'd like to learn. And I know I can improve my facility working with data (especially data viz)
My main trouble with grant writing is finding appropriate places to apply for a grant. The actual writing is not a problem.
N/A
NA

Need a good primer on statistical analysis (#10). Also, could use more training about effective professional writing.
need to publish more - I've been lazy
No knowledge of grant-writing; it isn't really in my current job duties. Don't know much about slide presentations, charts, graphs, or spread-sheets. Very basic experience in Excel. My written communication is very good, but could be better, I'm sure!
none
Nothing to add.
Our library staff do not do much of these types of activities.
Please add comments that help us understand your needs related to these skill and knowledge areas.
Public librarian working with community health coalitions and public health professionals.
Q9 - N/A Q10 & 11 - I have done a couple of conference presentations, but only published one thing (and I was the second author).
The hospital has a Research Professional - so if I need to do more advance work (stats, presenting, publishing, etc) I would make an appointment with Research professional for the project.
These are not areas I'm terribly interested in or these are not terribly applicable to my job.
This isn't an area that I want to excel in, but it is important to my institution, and there are some librarians here who are focusing on this area.
Was the first to use infographics in our library and am currently doing Excel & Access self-study to increase ability to analyze and present data.
would like interactive tutorial on creating posters, templates available
<b>Skills Group 3 - Outreach   Consumer Health   Mobile Apps   Social Media</b>
Outreach to residents, fellows, nurses, administrators, and consumers
#18 = n/a
13) In the past my outreach was to folks after they started here at this facility. Because outreach is now to be done system-wide and lead by a specific team, I focus on people I come in contact with in person. 14) I'm on a team that has created a survey that will go out to folks who have had contact with the library. We're figuring out the actual implementation now. 15) MedlinePLUS! 17) I've chosen not to own a smartphone or another mobile device for budgetary and personal reasons. Although, I realize the importance these devices do and will continue to play. Thus I'm behind the curve on this. 18) Not sure our medical center firewalls accommodate social media tools.
13-16 are items that fall under the "not enough time to delve into but there is an importance/need to these topics in our community." Mobile apps and social media tools do not fall into library responsibilities according to our city, though the library feels differently.
17. I am highly interested in assistive technology that engages diverse students in educational pursuits. I love CTD's webinars, but sometimes want to have a more lengthy discussion of a device, app or method
a
Adults in community; Native American and Hispanic populations.
again, needed to fill out this box. more personal needs than professional needs
All social media access is blocked by my institution, so I am never able to use it professionally.
As a Collections Librarian, I need to contact our faculty and request their needs. Could improve how I do this. Don't know much about evaluating outreach. Know basic consumer health resources, not versed on disaster health resources. Don't use many mobile apps, would like to do so. Don't really use social media tools now, but do need to improve my skills at live chatting for virtual reference consultations.
As a federal employee, I'm limited in my options for using social media tools in my professional capacity.
As a small academic library, most of these questions are not relevant to our services.
cancer patients

can't use social media at work
Change and what stays are problems
community area public patrons
Community outreach is conducted through a separate department. I share materials and information with that department.
Conducting outreach to nurses
Consumer presentations; nursing students
faculty
groups to target; students, faculty
Hard to keep current
Health professionals and consumer health users.
healthcare professional
I am interested in connecting with others who use Twitter & other social media professionally. (Like this webinar by Sheryl Ramer <a href="http://newyork.sla.org/?attachment_id=8432">http://newyork.sla.org/?attachment_id=8432</a> )
I believe i do well in Consumer Literature, but I am only tolerable at apps and dismal in using social media. that's ok, I'm retiring this year.
I do outreach to children and some adults.
I do outreach to undergraduate & graduate students, faculty & researchers, and some 7-12 grade students.
I have been added to the communications team for my local MLA chapter. I use FB and work with the website. For work I have worked with blogs also.
I have many ideas for outreach but I need buy-in and financial backing from my organization to implement.
I have very limited experience conducting outreach to specific groups regarding health information.
I mostly communicate and present to Deans, VPs, and upper administration.
I need more training on accessing consumer health information; probably more useful if resources available through my library system (Onondaga County Public Libraries including NoveINNY).
I primarily work with students, faculty, and researchers in nursing, public health, and dental hygiene at a four-year public research institution.
I still don't like smart-phone platform (noting addictive behavior among peers w/these devices is discouraging)
I think disaster preparedness is a very niche area that NN/LM has focused too much on. Consumer health is interesting, but I don't work with the public.
I want to help patrons and students learn and access info they need
I want to learn how to segment the service population effectively thereby targeting programs through marketing efforts to specific populations.
I was the Project Manager on an outreach group to minority and immigrant consumers in conjunction with nursing students and public libraries.
I work in a hospital, therefore my clients are all clinically oriented physicians, nurses, allied health and a huge variety of residents, medical students and nursing students.
I would be reaching out to the adult community.
I would like more training on gaining a social media following/best practices without using paid tools or ads
I would like to do more outreach to nurses and medical staff at my hospital, because many are unaware of available resources. I don't want to use social media tools because of hospital policies that prohibit their use.
I'd love to figure out ways to get college-age users into the library. We have a few that come to use study rooms, but I'd like to find more ways to encourage them to use our collection & programs.
I'm a newer librarian, so I don't have much formal outreach experience.

I'm most interested in conducting outreach to junior biomedical research faculty, as well as postdocs and graduate students in the sciences (bioengineering, microbiology, immunology, biochemistry, genetics, etc.).
I'm particularly interested in how to reach online students or faculty who never or rarely come to campus.
in 13 years I have had one person ask about mobile access. I have never had a question about social media.
In my current position I do not do a lot of outreach since users of the library are spread all over the world. I do use Facebook and print media to let users know about the library.
Interested in learning about effective strategies for faculty outreach
K-12 community
Learning to do a needs assessment to help guide outreach and determine the targets groups would be helpful as well.
Many social media tools are blocked in my hospital environment
Medical professionals and students are my desired target groups
medical students
More proficiency with social media tools and using them in outreach activities
My audience is mostly professionals in the hospital.
need more training on evaluating outreach efforts - i do a lot of outreach but don't always know how to determine ROI or evaluate success of the effort/campaign
none
Nurse educators and leaders; doctors
nurses
Nurses in hospitals
Nurses, Specialists
Of these choices, the one that I am most in need of is disaster health information resources, particularly for disparate populations, e.g. those with low health literacy. I'm all for Apps and Social media but find that I don't have a lot of time at work to engage in this technology.
Our relevant outreach communities consist of minorities (Hispanic, Haitian, African-American), including LGBT, elderly, and low-income.
Outreach is the primary focus of my current position. Target groups include all types of health professionals, from doctors and nurses to public health officials and other health science librarians.
Outreach mostly includes staff at off-site campuses.
Outreach target audience: nurses.
Outreach to consumers regarding health information
Outreach to local service organizations, English language learners, schools
Outreach to new medical residents in hospital who come from a variety of universities & colleges; outreach to nursing anesthesia students doing practicals in hospital for adv nursing degree.
Outreach to nurses, nursing administration, residents
outreach to seniors and low income
Patient and patients' families/caregivers
Physicians and nurses
Physicians, Nurses, Residents, etc.
Q.13 = Target groups: American Indians, immigrants, refugees, homeless, LGBTQ
Q17 - Have great difficulty with apps on cell phones. Q18 - N/A
reaching out to the community, reaching out to different groups within the hospital (nurses, docs, students, etc)

Regarding #13: I am currently in the process of writing a grant involving outreach to incarcerated populations. Would love training about effective/best practices in the corrections environment. For example, I am aware that there are special considerations for IRB approval, etc., and that you have to be mindful of not setting up an environment of coercion for people to participate in program activities.
Researchers
Seeking ways to get info to physicians, residents
social media is not allowed from my current position
Social media tools are not permitted in health care institution due to HIPAA
specific audiences: Seniors
students and faculty
Target audience is pediatric patients and families, as well as hospital staff
Target groups for outreach: Various age groups (Seniors - working and non working; children; new parents) People with Chronic Disease Caregivers of people with chronic disease Emerging/New Adults Socioeconomic circumstance (both low and high) Digital immigrants (18+)
Target groups for question 13 include pediatrics, specifically teens and parents/caregivers
Target groups: health professionals, hospital administrators
Target groups: residents, attending physicians, nurses, allied health professionals (anyone in the patient-care realm)
Target groups: teens; some adults (parents, grandparents, caretakers, etc)
Target outreach groups - community and public health workers.
target populations: nursing, allied health, physicians, hospital administrators
Targeted group: Seniors
The targets would be students, faculty, staff, residents, and preceptors at the clinical sites associated with my medical school.
There are so many websites out there I would like to know which ones are the most reliable for consumer and health information.
undergraduates v. graduates underserved populations Native Americans
we are a small, private for-profit university, so reaching outside of this realm is difficult, especially if there's also only me. I would like to possibly delve more into providing health information literacy to the community and work on projects that benefit the college and community.
We do not directly contact groups for out-reach. We have a community media relations group which coordinates...we would utilize a speaker's bureau in order to provide the expert information
We do not have access to social media in our institution.
We do not use social media or have consumer health patrons.
We have half the staff we used to have and 5 times the number of users we used to have. I need to improve my skills and that of our staff in social media--time is a barrier but so is access to timely, brief, on-point education.
We would like to improve our outreach to specific populations at our institution - e.g. research staff, support staff, administrators
Would be interested in working with consumer groups in my local area.
Would like a discussion group on apps, what is favored by new doctors and nurses.
Would like tips on how to better outreach to our health providers
You have to be realistic when creating classes about teaching with tech. Many will not have resources, and those that do will still have limitations.

Skills Group 4 - Bioinformatics   Research Data Lifecycle   Open Science
22) As collection development funds are cut and the need for document delivery rises, I see that being aware and knowledgeable about open access to supplement inter-library loan will be important.
b
Bioinformatics is an area I am interested in learning more about.
bioinformatics training definitely a must. Basic 101 and also sessions that dig a little deeper and speak to application of these resources, when someone would need to use them, and how to train or promote these resources to clinical researchers. Same for research data lifecycle - "101" plus how to support clinical researches, role of librarian in research data management.
Don't need these currently.
don't really need this, personal interest
huh?
I am adept at using new tools & open access (that I support w/vigor)
i can do this stuff but I have almost no call for it in my job so I probably wouldn't attend any classes in it.
I don't know anything about bioinformatics, and would like to learn.
I don't know much about the areas listed above, but I would like to know more. So far I haven't used these skills in my current job, but it is always nice to know.
I support the nursing research committee so would appreciate developing skills to support research.
I work in a hospital & rarely encounter the need for #20 & #21.
I work in a public library; some of this information is more useful in an academic setting.
If there are appropriate portals that keep these resources current and accurately identified, that would be good to know and save. Like to understand more about the different ncbi resources.
Library staff generally do not engage in these activities.
Looking for Faculty engagement
Most interested in question 22 - open access issues.
My facility is not a research institution.
My main focus is consumer health libraries.
My weaknesses are great and many.
NA
NA
need to help researchers as well as do my own research
Never do any of this
No current knowledge of the bioinformatics tools you mention. Know the basics of general research, could use more knowledge as how it applies in sciences. Very limited knowledge of open science/open access.
none
Not interested in these topics
Not sure how these may fit my mission; unfamiliar
Obtain a better understanding of biomedical informatics tools
Open science, open education, open everything would be excellent courses. Make them practical and make us understand their importance and also show the impact of existing programs. Need buy in.
Q20 & 21 - N/A I am NOT a science or health librarian; the closest I get is autism/disabilities (Education) and Psychology.



re No 20. It is not something I have to know. We have someone else who does that. We don't do a lot re disaster info as our company Cedars-Sinai has a disaster plan etc
Several of your questions are not applicable in my situation,. Your design should have a NOT applicable section eg #'s 20, 21 and 22 have no use at my job they should be a zero or NA
The thought of using our library rarely occurs to our researchers - we don't have access to basic resources that they require. I'd like to learn more about data access, retrieval and management so I can persuade the funders to purchase necessary resources and support my training in these resources so that our researchers have an on-campus expert to offer help.
These are somewhat beyond the scope of the public library where I work
These are topics that I handle on a daily basis as part of my regular job duties.
These topics do not pertain to our situation at this time.
This is all new terminology to me. I'm unsure how much proficiency I need. A general knowledge is where I would begin.
This is an area I would like more tutorials and assistance in.
This is an area that I see so important for academic librarians. Like my previous comment I feel the need for an overview and then focused sessions that build to expertise in this area.
this is something I have never done and do not have a need to do so.
Would like to learn more in all of these areas, but not sure how I will apply this knowledge in my current position
<b>NLM Group 1 - PubMed   Clinical Resources   ClinicalTrials.gov   Full text   Drugs and Devices</b>
24 is unclear = I understand the basics but would like to know how to avoid bad science. Should discuss the status of clinicaltrials.gov
Again, I work in a public library setting. Our patrons usually need consumer health info only, not the scientific literature per se, or biometrics. Our community is not very academic, on the whole.
Apart from traditional PubMed, these topics are far removed from my daily job duties.
Frankly, PubMed is my least favorite resource. I find both Ovid and Ebsco Medline versions preferable. Fortunately my company licenses Ebsco.
Full-text access is not as important to me as an academic institution librarian.
I am a public librarian and know little about these resources, but think they would be very useful.
I am an Information scientist NOT a clinician
I can't stress enough that there needs to be more in-depth instruction on how to use PubMed. They can't just be classes that are like "Oh here is a cool feature. You might use this once in a blue moon..." We need reinforcement of step-by-step advanced searching. I've talked to many librarians who are self-taught and want to know more - so many of us are asking: Am I doing this right??
I have experience with Interlibrary Loans using ALA forms and OCLC and local ILL computerized systems. We are using Get it Now to assist with being able to supply our patrons with scientific and medical research articles. Do not know specialized drug databases at all.
I have staff who use Docline, etc. much more than I do. I basically cover when they are out.
I have used ClincialTrials.gov many times for answers to questions people have asked about a certain medical condition.
I need to learn more about medical, especially nursing and drug resources
I think it's fair to say at this point that I don't have a lot of expertise in the specialized NLM databases, e.g. DailyMed, LactMed, Bookshelf etc., so education on these would be helpful.
I took Advanced PubMed Tips, Tricks, and Tools about a year ago, it was a WONDERFUL class. Advanced searching classes are always useful.

I use all the above in my daily work. Would like regular refreshers/updates. I use all these routinely and find it hard to adopt new strategies and make routine. Maybe comparing different methods and showing one to be more efficient would help.
I wish I understood PubMed Health more. Still seems a bit murky. Same for ClinicalTrials. It feels overly multi-faceted and is not easy to search or interpret results.
I would like to increase my proficiency with these resources, particularly those I don't use every day, such as LactMed and Pillbox.
I would like to learn more about LinkOut...
I'm always looking to increase my EBM/EBP skills. I don't know anything about the drug and medication resources.
I'm very behind with my knowledge of drug resources, any kind of education on this would be extremely helpful.
In my work with outreach to health professionals, PubMed is the more important NLM database that I use. I don't have a high level of proficiency, primarily because I don't use it regularly for my position, but I need a high level of expertise in order to teach classes on it as part of my outreach. I have been in medical librarianship for less than a year and finished my MLS just before starting my current position.
In the past librarians were able to take an intensive multi day course to understand how to search Medline and use the tree structures etc (before PubMed). I have worked with librarians who have not been through a good intensive course like I did and it is evident when I work with them. While the current PubMed training appears to provide a good foundation I think we are missing some things. Librarians should have a strong understanding of MESH and Tree Structures and how to use these tools.
Interestingly, I find database vendors versions of Medline easier to use than PUBMED.
I've only used PubMed...not familiar with the other resources listed here.
NA
Need to learn more about these resource areas.
No 28 We don't use this at our library but I do check it out and stay current. We have our own databases. Also we only support medical staff
none
public librarian with consumer health questions
PubMed, Docline, LinkOut used here daily while the drug resources like DailyMed, etc. are not. We use proprietary sources like ClinicalPharmacy, etc. for drug resources more frequently.
Q25, 26 & 28 - N/A Q27 - Only PubMed Central applies to me
Some of these sources are beyond what my job entails.
These are tools I might need in my public library job.
<b>NLM Group 2 - AIDS   Genetics   K-12   Toxicology   Health Services Research   Public Health</b>
Again- # 32 is totally out of my pervue
c
Consumer health is not in high demand but as it occurs, the need to provide that info is essential.
Don't really need the K-12 health resources, I work at a community college. I'm unfamiliar with most of the named resources, so definitely want to learn about them.
I believe I'm at the level I need for my position. Plus, there's a lot of teaching available on a regular basis.
I don't even know what a lot of these sources are.
I don't know much about these resources, but I also don't use them for my current position.
I have heard of all of these resources but do not have a need in my job to access them for our patrons.

I have really not used these resources but would like to get more familiar with them.
I haven't used many of these but feel able to learn how to use with ease...
I need to know more about how health literacy and family literacy intersects with Healthy People 2020. What are the goals and who are the key players with family engagement and literacy for early struggling readers
I only just learned about some of these resources recently, so I need to learn as much as possible about all of them!
I took the k-12 course, but had difficulty figuring out which websites I could give to which age groups, which was what I was hoping to learn. Note that the questions that have both desired and current proficiency as 1 ARE answered.
I would definitely take a class (webinar or Moodle) for #34 and #35.
I would like to know more about public health information tools, consumer health tools, & disaster info for the general public (how to help my public library patrons find info and get help during various disasters.
I would like training applicable to the needs of public library users
I'm most interested in the use of genetics resources in a clinical context.
Interested in learning more about accessing public health data sets, eg BRFFS and the software needed to use them
I've seldom used health services research resources, hope someone will develop a Moodle class.
Most of these we do not use but I would like to be more proficient and more aware
Mostly I need the Cliff Notes approach to these various databases.
NA
none
Not on my radar of things I do at the library.
performing a relevant public health project would be interesting.
Q31, 34 - N/A Q32 - I'm only aware of ToxTown - need to investigate the others! Q30 & 35 - may be helpful for Social Work, but I'm not aware of any of these.
the health services research sources are new to me. But sound very relevant.
There is so much to learn, so little time.
Yep, help with the specialized databases would be helpful to me. Also, a way to keep them top-of-mind. I seem to go to PubMed first and often find relevant info so i don't think to check the other sites.
<b>NLM Group 3 - Public Access Policy   NLM data extraction   UMLS</b>
Again, the Cliff Notes is the level I desire.
As a cataloger, I have a basic understanding of NLM subject terms, but could use more training here. No current knowledge on the first two questions.
d
I don't know much about any of the above topics. So far I haven't needed them in my current job.
I have a new project where I want to use vocabularies and ontologies in research data management; in the past I've only used vocabularies and ontologies for searching.
I have no idea what some of these things are! Is that bad? Am I a bad librarian? If you're going to offer courses on them, would you maybe give a short intro to what they are in the announcement? If you announced "Hey, come to our course on eUtilities," I would say "I have never heard of that and I have no idea what it is, and I'm busy! So I'll skip it!" But maybe it's really a cool and useful thing! (I'm going to look them up now, obviously, but if other people are in the same boat, an explanation would be useful and might increase enrollment.)

I haven't encountered these resources and don't know enough about them to even know whether it would be helpful in my role as a solo hospital librarian to be familiar with these resources.
I'm not sure how much I need to know about 37 and 38. I would like to know about all of these, so that I can help my students and faculty more effectively.
It might be interesting to use these in case studies, at this point it does not appear that relevant to me, but I am sure it could be.
NA
NA
never used, never requested,
no comments...
none
None of the items on this page have any import for my job- yet, I cannot correctly tell you that given your structure
Not interested in these
Not much call for these in public libraries
Q37, 38 & 39 N/A to my subject liaison areas
re: 39, I understand MESH, we based a taxonomy we made on it (with changes for our audience). I'd be interested to hear about other vocabs and how other people use them/ A;; questions desired and current =1 ARE answered
There are so many resources! It's pretty overwhelming. Having trainings that really clearly identify who the resource will be useful for is always helpful.
There are some things that I really would not use in my daily work, but it is always good to learn or know things...just in case
These are more for the academic library setting. My area is public librarianship.
These topics do not pertain.
this is the first time i'm hearing anything from these 3.
Would like to be able to assist researchers in assigning key words prior to submitting articles for publication, and to look for multi-sectoral collaborators for research

## Everything Else

Unique
As I go through this survey, I am realizing that the needs of public librarians are quite different from academic or special libraries. Training specific to our library system would be most effective.
I am an experienced librarian, but I would also like to see NN/LM offer training geared towards library students and/or new librarians or those new to health librarianship. Many library schools do not have health sciences tracks, and graduates have to rely on on-the-job training, so it would be nice to offer some formal training for them.
I think the AHIP specialization areas are a great idea, but it would be nice to have clearer, more succinct outlines of what the outcomes and knowledge a person who completes a specialization should have.
I would like to see student level online tutorials made available. They would not have to be as detailed as the webinars for librarians - just enough to guide the students through searching (including choosing terms) and retrieving articles. Maybe advanced tutorials with more details could be made available for those pursuing majors/careers in the sciences or medical fields. Basic tutorials would be fine for Education, Psychology and Social Work!

It would be great to have a new med librarian's boot camp half day training. I may be the only attendee though :-)
One of the slightly frustrating things about some of the webinars I've attended is a lack of a "takeaway," or tips for how certain ideas can be implemented. If a presenter is showing us a form she developed and has found helpful, and then says "It's proprietary, so I can't let you see it," that's not very useful. If the presenter says "We did X, Y, and Z at our library, and it worked really well" but doesn't give us the details of HOW it was implemented, that's not very helpful either. I'm attending these things more to pick up tips I can use than to hear success stories.
start to finish examples of hospital libraries pairing up with other departments and overcoming silos, creating collaborations across institutions.
Act 1557 impact on patient education; implications of revisions to Section 108 copyright
Annual updates....If I can't get to the MLA or regional conferences, how are annual updates of NLM conveyed? Only Tech Bulletin?
as much as possible on copyright and fair use
Credentialed training that is going to mean something to people outside of the library community.
Frequency of offerings need to increase. It would be great to have a cache of courses readily available to choose from that are passive.
general awareness of "good information tools" and peer interaction to get best advice on existing tools
Government documents
H-Index. what are the resources for calculating it
Hospital acquisitions and mergers and effect on provision of information in merged hospitals
I was dissappointed the Breezing Along with the RML was cancelled...
If by chance, there are "pie in the sky" future projects that NLM / NCBI staffers would like to do, it would be fun to hear about these projects. Things that might happen in the distant future -- things that NLM would like to do with its databases when staff, money, other resources become available. Ideas about where NLM is going with its work. This would be interesting even if the projects don't really come to pass. Hearing about ideas that the NLM researchers have would be educational and fun. (just my stream of consciousness)
leadership and management skills, HR basics, advocacy, ROI, assessment and measurement of services
leadership skills stress management time management
marketing
More on the "new stuff" iCite
I could use basic library training, such as information on collection development, space utilization, etc.
I don't know. I'm in a hospital library and there's not much demand for research.
I need A) a handout with a list of all the resources available to our library system - paid and free resources, and B) a webinar or workshop on which resources to use for different kinds of patron questions
I need to build my knowledge of Medical Libraries from scratch-- I wound up taking on an Allied Health role and I love working with students... never took related MedLibs courses in MLS program or continuing ed. I'd love to make a transition to work at a medical library, though, so I need all the help I can get!
I'd like the option of having webinars/tutorials/ etc delivered to my desktop. There are zero funds for traveling and education.
Techniques to identify those with a heroine addiction coming into my library. How to diffuse situations with patrons who may have mental health issues.
New resources, technologies
SharePoint

Use things like lists (medlib-l) and journals but I'd love to see sessions where people share how they "do" practical tasks, a kind of swap meet.
What is our role in Population Health
Wordpress, html, php, java, css
Would love a class about "How to keep up with emerging trends in medicine" - something to that effect. Something other than simply setting up alerts in MyNCBI.
There are so many different situations for librarians. Please be clear in your marketing which kinds of librarians will find the information useful (hospital, academic, etc.)

<b>Bioinformatics</b>
anything to do with genetics / sequencing (without having to be an expert)
BioMedical or Medical Information Science Training is what I want.
Extracting data information more bioinformatics training
I would use intermediate to advanced training in bioinformatics and human genetics databases
Appreciate the variety of topics and formats in which training is offered. I found the Biomedical Informatics for Librarians (Diane Rein) class to be incredibly helpful. It was rigorous, but I learned a *ton* and I liked how it was set up like an academic for credit class. Very well-organized!
Informatics is broadly defined. Informatics training specific to disciplines: nursing, public health, allied health, social work. consumer health AMIA has a certification in informatics. How can NN/LM network assist in the process? <a href="https://www.amia.org/news-and-publications/press-release/amia-announces-advanced-health-informatics-certification">https://www.amia.org/news-and-publications/press-release/amia-announces-advanced-health-informatics-certification</a>

<b>Compliments</b>
I find what is on offer quite good. More of the same please
I have been very pleased with what NLM offers regarding the use of PubMed. I'd like to see more on data management.
I think my problem is that I don't know what I don't know. This survey has opened my eyes to some parts of medical librarianship that are not things I do or use every day that I should maybe learn some things about.
I think what you offer is great and very educational.
It is all new. I am appreciative of all of the training.
You have great class offerings
Your education outreach is very good.
I appreciate your outreach efforts...
I enjoyed attending the training once held at the UC Davis Med Center several years ago. The class was on eScience (I think.)
I have really appreciated the free classes and webinars. Lots of work go into preparing them and I'm grateful to be able to learn throughout the year rather than have my brain used up by CEs before the annual meeting begins.
Love what you guys do - especially the variety!
Please keep up the good work!
You are doing a great job
You guys are great!
You offer a wide variety of training, which really helps me know what's out there!

<b>Consumer Health</b>
Consumer Health Outreach
Consumer health collection development and library administration
Consumer health info resources - MedlinePlus, PubMed Health etc.. would be helpful
Geriatrics resources
how to attract those who are not using library services? How can we help native Americans (Indian tribes) get better health information service?
How to engage potential partners to collaborate on outreach programs; librarian engagement and roles for librarians
How to teach teens & make it exciting for them. They don't want training to be like "more school" ...dry presentations & notes. I LIKE that format, and I'm not good at making information into a fun game format, or make it real to them in their current daily lives.
I would like to be certified as a disaster preparedness contact for our area here in Southern Idaho.
I would like training on providing foreign language consumer health information.
Just more training on resources available for librarians to help public find health information
K-12 resources, additional PubMed (I did the 3-part webinar - thank you!)
LGBTQ issue The best resources on new and breaking infectious diseases like MERS or ZIKA
Updated CEs for The Consumer Health Information Specialization Program, level 1 and 2
Consumer health info! My colleagues use google, despite my singing the praises of MedlinePlus!!!! (I wish you could fund more advertising for it, so not everyone uses WebMD or google). Sigh. :-) My own librarian coworkers forget to use it. Sigh. :-)
I have asked many people about what they see as a need here and they agree that we should be prepared for anything. Very few know who our emergency contact here is. I had her speak at an afterschool program and she did a great job but she said she is one of very few serving this area.
I have found your prior training of assistance. I would like to know where to find a portal of training on family engagement and literacy
I would like your next sessions of consumer health classes to provide information for K-12 to be offered in the morning 10:00 a.m. EST. I was not able to make your last 2 programs offered in the afternoon at 4:00 p.m.

<b>Copyright</b>
Act 1557 impact on patient education; implications of revisions to Section 108 copyright
as much as possible on copyright and fair use
dealing with vendors, copyright issues, the politics of medical librarianship.
Grant and publishable article writing; copyright options and provisions, data management, bibliographic management software
multimedia copyright in a NON-EDUCATIONAL setting

<b>Evaluating Outreach</b>
A step by step consideration for how to create an outreach program
How to utilize social media analytics tools to gauge public awareness and accessibility to health resources. Another type of training that would be beneficial is to learn how to conduct true assessments.

when providing consumer health information-how to determine what level the user is capable to reading/intrepreting/using

### **Evidence Based Practice and Systematic reviews**

Basic information on Evidence-based practice and evaluating research quality

best searching practices for systematic review

bio statistics

Continued development on critically appraising clinical journal articles/study results. Metadata schemes for data management purposes.

Critical appraisal of studies, more on systematic reviews for librarians

Evidence-based searching

I know a web session is coming up on Systematic Reviews, but I'd really love to see more around this topic

Information about evidence-based medicine. It would be helpful to have classes ranging from the very basic to the very advanced.

Population health literature searching for systematic reviews

Possibly discussed, but Bibliometrics, Open Access Promotion

Synthesis of current evidence on a topic

Systematic review searching, but that might fall under "literature searching"

SYSTEMATIC REVIEWS

Teaching evidence-based medicine

the step by step reality of doing a systematic review - I have the overview - I want the details

I need some beginning level/introductory level classes on EBP and Research

### **Instruction**

Distance learning training, online course design, creating effective tutorials. I know MLA just offered a series on this exact thing, but I wasn't able to participate.

How to teach

How to use cost effective on-line meeting technology ; skype for meetings, join me etc.

instructional technologies for creating tutorials, learning objects, etc.

Training in specific resources to create video tutorials. We could use tutorials for our medical students (who do not want to attend classes). We use PubMed tutorials extensively, please keep them up to date.

Training on working with basic scientists

Using new technology to create presentations Using social media for classes

### **Learning Environments**

Consider offering training, even face-to-face during the summer months.

Do everything you can to make sure presenters are prepared to deliver their content in the time slot allotted and with clarity.

Do you send course registration reminders prior to the beginning of courses? Do you send updates for trainings to those who are on the newsletter list?

I benefit most from reading articles or participating in web-based, interactive presentations. I like webinars as well, but I learn best from reading

I love the ease of online learning, but I love the interaction affording by in person learning.



I would love to have trainers come in person. You get so much more information and answers to specific questions when you face-to-face with your trainer. Please! Bring back these on-site live sessions!
I would really like something on a regular schedule like Midday at the Oasis because I can tell people that I will help them after the webinar.
I'd like to get more tool/resources from webinars
I'd like to see short instructional videos on various topics -- maybe structured like Lynda.com
if offering a course on a specific tool, provide a data set that we can use to practice with after the class
In #43, the library isn't allowed to have it's own accounts. The city has but there is an administrator with access vs. library staff being able to include information.
More in-person classes.
Prefer it when sound & image are on the computer & do not need to use my phone as well.
Using all Media for our work

<b>Literature searching</b>
Advanced database searching skills
Crafting complex PubMed searches or search strategies.
how to locate retractions, dosing errors, withdrawn studies quickly
I would like more search training on Systematic reviews.
I wouldn't mind knowing more about the NLM and how it works, history of NLM, etc.
Anything related to being a better searcher for hospital staff. We are not involved with systemic review level searching.
Best ways or techniques to teach NLM resources to specific groups; ie nurses, scientists, fellows, etc
How to best help researchers
Step-by-step advanced searching. Constructing searches for systematic reviews.
Very advanced level search, understanding nuances of databases and grey literature, more computer program training
Ways to find reviews of medical books. Our Health Careers Campus will offer a four-year degree, so I need to be able to judge levels. Would like to know how to locate more than textbooks-- or are texts the best resources for a library supporting P.A. and nursing programs & allied health careers?

<b>Mobile Apps</b>
App Development
This helped me identify I need more information on using apps and social media in my teaching.
Using a smart phone basics; learning the nuances of Practice Gap searches; basics in technology within LIS.
<b>NLM Products</b>
Docline, PubMed
Expert training on PubMed, additional training on developing classes
How to help researchers with NIH Policy - nuts & bolts
I think it would be great to have webinars on applying for NN/LM grants and funding opportunities.
I think the specialized database training would be helpful. Also, new technologies that becoming mainstream or adopted and how we can use them in the work that we do as librarians.

I work in a public health agency, so anything related to public health core competencies or quad council nurse competencies, epi competencies, lab science competencies is an advantage to our organization. Additionally, emerging issues in public health such as social determinants of health and healthcare - public health integration is important to the public health professionals. Anything performance management and quality improvement is very important to accredited health departments too.
Is there a way to sign up for some of these databases through NN/LM, like a consortium?
Medical terminology and understanding of current issues in medicine (broad).
MeSH searching and how MeSH terms are added
more explanation about BD2K
More on PubMed, ... well, more on ALL the resources NLM has to offer. There is so much, I don't know where to start sometimes.
More training for Docline.
Reference for medical needs.
Semantic Medline
setting up Linkout and customizing PubMed experience

<b>Open Data</b>
Data extraction, data evaluation
Data management for NIH grants
Data Management Services we can provide to researchers
data management, open access, copyright, bibliometrics
Data management.
Extracting data information more bioinformatics training
Grant writing
How to handle open access journals?
I would like to learn more about data visualization - tools to use, effective presentation of data, etc.
More training about data (all aspects)
Semantic web, building an enterprise ontology
The buzz about data organization and curation
<b>Practice of Research</b>
Helping with workflow best practices when preparing a publication/grant with several people (EndNote, saving conventions, ease of collaboration)
Manuscript editing, update on open-access images, copyright updates, citation databases, securing funding for open-access publications, publishing houses within academic medical libraries- how-to, overview, best practices
rigorous research study design and methods - practical tips and application, not just theory. Same goes for statistical data analysis.

<b>Webinars</b>
Asynchronous or recorded webinars work best for a busy schedule.
Doing it at an asynchronous time that works with our work schedule is important to me.
Free, 45 minute, live Webinars are the best! (Of course they should be recorded, too, for later viewing). Please keep them free of charge.

I enjoy live webinar training programs. There is the immediacy of being able to engage with the instructor(s) in real-time for Q&A plus, if the chat function is enabled, there is the feel of being in a "real" classroom with colleagues. I have watched webinars that have been recorded and find them helpful however, my first choice is to attend "live" if possible.
I like doing the webinars very much.
I like live webinars that I can watch at my desk (rather than the MLA webcasts where I have to go to the hosting location).
I like the format of the current webinars--ppts, live demos, surveys, activities, etc.
I like to have live training which is subsequently available with online self-paced materials.
I like to view the webinars that you have archived. It is nice to have access at my convenience.
I particularly like webinars that are recorded so I can view them at my convenience.
I prefer online or video courses
I really like the live classes where you participate in activities during the class.
I value the recorded lectures and the self-paced instruction.
I would like some of the webinars to be longer than 1 hour or if there is a lot of content to cover, breaking a session into 2 days
Increasing need to have asynchronous or web-based training options.
In-person classes do not work for me as I am in a rural area quite far from the places in-person training often occurs. Asynchronous courses and webinars are best for me, particularly if recordings of the webinars are made freely available afterwards as they sometimes fall at times when I have other work commitments.
Love webinars
Make all live training available later as a recording.
More online courses. Topic oriented training.
Prefer recorded webinars. It is nearly impossible to make a synchronous event in my job.
Recorded webinars always fit into my schedule
Recorded webinars that you don't need the internet to view/listen to would be ideal (so the ability to download the files). I would love to be able to use my commute/travel time to view these but can't as I don't have reliable internet.
some more hands on...maybe a half day... or there are some topics that sometimes we need more time when the class is offered online.
The ability to view recorded webinars is appreciated.
The asynchronous classes are an excellent format, but live webinars suffice for smaller topics.
The state does a great job of offering a mixture of physical meetings and webinars. (free). Which means I can tap into these resources. When NN/LM offers webinars at institutions for me there is a 3 hour drive involved - hence I am unable to participate
The webinars are generally very helpful, but sometimes fill up before I can register.
There seems to be a swing in public health workforce development toward distance learning due to fiscal considerations. NN/LM does a great job with this, please keep it coming.
training that includes practice and instructor feedback
We need the flexibility to schedule events for our selves - live classes in far off towns is not helping - no budget, no time.
Web based is good but time consuming
Webinar is the best. It eliminates the travel time, and time off from work.
Webinars always work
webinars, training in local locations are best for me.

<b>Self paced tutorials</b>
I like the Moodle platform. Could NLM use Coursera, or is there a conflict of interest/security/cost issue there? Just curious...
More PubMed tutorials that are short and use real life examples of how and when to use PubMed.
patient centered interactive help
prefer demos that walk through training- with video or screencasts which can be viewed as needed
<b>Statistics</b>
Basic Research Methods and Statistics for Research
Dataviz, collection assessment - how to get true numbers from different resources. Db usage vs. journal and ebook usage. Are all the numbers the same. Statistics.
R, Tableau, Stata, ArcGIS
Really enjoyed the "r" class and would like to see another one offered
Software specific training, for example, not telling me why R is a useful tool but actually teaching me how to use R.
statistics
Using text mining or content analysis tools.
Understanding statistics in research

<b>Technical Services</b>
anything technical services related!
Cataloging
cataloging, Web site maintenance.
i would like to see more management training seminars. I would be interested in looking at how to handle vendors, budget, and choose resources. best practice for this.
I would like training on how to maintain electronic resources and other "back of house" issues. Wrangling databases and full-text resources is of great importance to all libraries, but it seems like anything in this arena isn't really focused on with training opportunities.
Licensing/negotiation of electronic resources
resource negotiation training (how to best advocate for reduced prices with vendors, how to best advocate for funding from institution)