

Plains to Peaks Post

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University of Utah Health Sciences Library Awarded \$13.2 Million in Contracts From the National Library of Medicine

As many of you have heard, the University of Utah Spencer S. Eccles Health Sciences Library has received two contracts worth \$13.2 million from the National Library of Medicine (NLM). The first \$3.7 million contract makes the Library home to the country's only NLM Training Center for the next five years. The second award, worth \$9.5 million, renews the library's five-year contract with the NLM to serve as the country's MidContinental Regional Medical Library.

Both of these contracts underscore the critical role that the Eccles Health Sciences Library plays for both the region and the country. We're pleased the National Library of Medicine has such confidence in our programs and services and are looking forward to servicing our region and now our nation.

The National Library of Medicine Training Center (NTC), under the able direction of Sharon Dennis (assistant director), will be responsible for providing training throughout the nation about NLM products and services, including PubMed® (<http://pubmed.gov/>), TOXNET® (<http://toxnet.nlm.nih.gov/>), and NCBI databases. Historically, the trainings were in-person classes, but with this contract, more emphasis will be placed on distance classes and online tutorials.

Sharon has already hired the faculty and staff for the NTC and like the MCR program, is using a distributed model as far as NTC trainer locations. Sharon Brown will bring her many years of wonderful training experience with the previous NTCC to the new NTC while remaining based in New

See "Contracts" on page 2



Did you Notice!?!

The Plains to Peaks Post has a new masthead!

We're working on a complete redesign, so be looking for more changes coming soon.



In This Issue

Health Sciences Library Awarded \$13.2 million.	1
2011-2012 Objectives.	2
2011 Outstanding Public Library/Public Health Partnership Awards.	4
Better Prepared by Being Better Informed.	4
Want some excitement? Why not exhibit?.	5
Whooo Says.	7
Integrating the Medical Library into Hospital Emergency Planning.	8
mHealth.	9
What is a QR Code?.	10

York City. Rebecca Brown will also be working from another state, Kansas, as a trainer/curriculum and content specialist. In addition, Sharon Dennis will assist with teaching classes; Eccles Library faculty will serve as back-up trainers. Staff located at the Eccles Library include a project coordinator, Lindee Radtke, who will handle the financials and many office and program logistics. Matt Steadman, NTC web developer, will be working on the training registration system, the NTC web site, and online tutorial development. Claire Hamasu will help to guide the NTC activities as associate director, as will Jean Shipman as director.

The National Network of Libraries of Medicine, MidContinental Region will continue serving the six-state region, Colorado, Kansas, Missouri, Nebraska, Utah and Wyoming. This is third time since 2001 that the Library has had a five-year contract to serve as the NN/LM MCR. In the past five years, the MCR program staff helped train more than 10,000 users across the region.

We are delighted to continue to work with the librarians and staff within our six-state region to promote NLM products and services and to ensure access for all to quality health information. Within each of these states there are Resource Libraries that help carry out the program's goals and support local librarians working under subcontracts. We deeply appreciate the Resource Library Directors' support of the NN/LM program, both in spirit and with additional resource support this year, due to lower funding levels - thank you!

There have been some staffing changes within the NN/LM MCR as a result of the new contracts. John Bramble has become a technology coordinator replacing Sharon Dennis. Recruitment is underway for a Utah/Member Services Coordinator (<http://library.med.utah.edu/lib/employment.php>). There will be a replacement appointed as well for the Kansas Outreach/ Technology Coordinator, as Rebecca Brown has joined the NTC. Siobhan Champ-Blackwell, Health Information Literacy Coordinator has accepted a position with Aquilent. They are contracted by the National Library of Medicine to promote and implement the disaster health information goals for NLM's Disaster Information Management Research Center. All the rest of the terrific MCR coordinators remain as prior and Claire Hamasu will continue to serve as the associate director and Jean Shipman, the director.

Future goals of the program will focus on new roles for health sciences librarians in the areas of e-science, patient safety, health information litera-

cy, emergency preparedness, and knowledge management. These new roles will increase the arenas where health sciences librarians can exhibit their expertise and use health information resources developed by the National Library of Medicine to achieve the overall goal of the National Network of Libraries of Medicine program.

Many thanks for your support and assistance with completing our contract proposals and with providing valuable feedback in support of our programs. We all look forward to working with you in the coming five years and want to hear your ideas for how we can do so!

-Jean Shipman, Director

NN/LM MidContinental Region 2011-2012 Objectives

As part of the MidContinental Region's contract negotiation with the National Library of Medicine, we develop a list of objectives for the year. We want you to know what to expect from us too! The following is a list of our intended objectives for 2011-2012. The objectives encompass services to our Network members as well as our outreach services. These objectives are also on our web site at: http://nnlm.gov/mcr/about/objectives_2011-2012.html

Assessment and Evaluation

1. Work with Resource Libraries, including signing and monitoring implementation of subcontracts for basic services, and assess Resource Library and Coordinator experiences
2. Inform NLM of regional, state, and local activities that contribute to improved connectivity, access, and health information resources as a result of NN/LM MCR programs
3. Assess the impact of the Regional Advisory Board on RML programming and the experience of Board members
4. Assess needs of health sciences librarians and other organizations in the Region for NLM and NN/LM products and services and share data with NLM and NN/LM
5. Monitor and evaluate NN/LM MCR programs to assess their effectiveness

See "Objectives" on page 3

Library Advocacy

1. Promote advocacy materials to the region
2. Support librarians to become change agents in their institutions in health information literacy
3. Support librarians to become involved in patient safety activities in their institutions
4. Provide resources for librarians to support and improve their business practices in the hospital setting
5. Promote NLM grant opportunities in presentations and MCR communication tools while identifying regional candidates for NLM funding
6. Promote and provide consultation services and sessions on preparing proposals and promote successful projects as models for Network members' use

Education

1. Promote history of medicine resources within the region
2. Present a class on the exhibitor and presentation toolkit
3. Identify and contribute classes to the MLA Educational Clearinghouse
4. Host NLM Training Center workshops at 2-3 sites annually
5. Develop resources and train members on preparing continuity of service plans
6. Provide training on NLM and NN/LM resources and tools
7. Offer e-science education webinars
8. Teach technology classes
9. Manage and promote NetLibrary e-book collection
10. Offer classes in statistics, organizational behavior, and evaluation for demonstrating library values
11. Use the RML communication tools to promote education opportunities
12. Submit program proposals at local, regional, state, or national events
13. Present open access, multiple language resource sessions to state refugee coordinators

Health Information Literacy

1. Implement a strategy for coordinators' involvement with CBOs and Community Health Information Exchange agencies

2. Develop an exhibitor and presentation toolkit for Network members
3. Promote health literacy awareness through various networking and collaborative efforts
4. Promote health literacy awareness through NLM and NN/LM products and services
5. Promote health information literacy collaborations that reach other networks and relevant organizations
6. Maintain state library collaborations
7. Exhibit at local, regional, state or national events
8. Manage the Bringing Health Information to the Community blog

Member Services

1. Involve Network members in RML activities
2. Enlist the assistance of Network members and Regional Advisory Board members to exhibit at national, regional, state, and local meetings
3. Conduct drills or exercises to test the continuity of service plans on a regular basis
4. Identify and maintain effective methods of communication
5. Manage portions of the NN/LM Resource Sharing Plan

Technology

1. Investigate and implement communication technologies
2. Maintain NN/LM MCR web site
3. Create and maintain the e-science web pages
4. Regularly monitor and disseminate technology developments
5. Offer 4 technology sandbox sessions
6. Technology Working Group members contribute to social media content for the region
7. Provide consultations and assist Network members in developing strategies that address barriers to access
8. Promote and assist the involvement of Network members in electronic health record projects within their institutions
9. Support appropriate personnel, preferably librarians, at five community colleges to integrate evidence based medicine and consumer health information into the Health IT program curricula

2011 Outstanding Public Library/Public Health Partnership Awards Recipients

The National Network of Libraries of Medicine, MidContinental Region is excited to announce the recipients of the 2011 Outstanding Public Library/Public Health Partnership Awards. The award, which included a \$200 check, recognizes public libraries that have had successful public library/public health partnerships involving health information.

And the winners are:

Norton Public Library/Area Healthcare Providers Partnership - Kansas

<http://www.nortonpubliclibrary.org/>
<http://www.ntcohospc.com/>



A new medical doctor and the addition of a health clinic to the Norton County Hospital served as the springboard for collaboration. The Norton Public Library Director met with hospital staff

and garnered interest and support for promoting consumer health information. The recently hired clinician kicked off the first collaborative event in March 2011 with a presentation on hypertension. Thirty community members attended the session held in the library's community room. Because of the inaugural event's success, the library and hospital are working on plans to offer monthly consumer health information sessions at the library.

Red Feather Lakes (RFL) Community Library/9HealthFair Partnership - Colorado

<http://redfeather.colibraries.org/>
<http://www.9healthfair.org/>

The RFL Community Library has partnered with the 9Health Fair since 2005.



The 9Health Fair is Colorado's largest nonprofit, volunteer driven health fair promoting health awareness through free and low-cost health screenings and education programs. The library is an active partner in the annual event serving as a location for health screenings and providing research and computer support for participants conducting health and medical research. Without RFL Community Library's partnership with the 9Health Fair, many of the current services, screenings and health stations would not be available.

St. Charles City County District/ Area Healthcare Providers Partnership - Missouri

<http://www.youranswerplace.org/>



The St. Charles City County Library District, identifying a need to bridge the health literacy gap in the community, sought partnerships with

local healthcare providers to conduct health information lectures and programming. The goal of the project is to pair the expertise of local hospital health professionals with the knowledge of the information professionals at the library.

Participants attending programs are able to ask questions of the health professional and then utilize library staff and resources to find further health information. The partnership has expanded with library staff organizing and maintaining the Cancer Education Center Library at the Siteman Cancer Center. With the library's expertise, patients and Center staff are able to more efficiently locate and use resources at this mini-library location. In addition, the library also participates at Wellness Fairs highlighting the lectures and health information resources.

Congratulations to all those involved in these partnerships!

-Dana Abbey, Colorado/Health Information Literacy Coordinator

Better Prepared by Being Better Informed New Partnerships Expands Library's Role in Local Disasters

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Is there a better place for a public information center than somewhere that already informs, educates and empowers local citizens? The idea to establish and administer such a center focused on the Lawrence Public Library in Douglas County, Kansas as the perfect place.

To do so, the library director formed partnerships with the local health department, emergency

See "Prepared" on page 5

"Prepared" continued from page 4

management agency, Research and Training Center on Independent Living at the University of Kansas, and Together Prepared—a community coalition of agencies serving vulnerable populations. This unified force applied for and later carry-out an award from the National Network of Libraries of Medicine, MidContinental Region.

These efforts resulted in the establishment of the Douglas County Public Information Center, which consists of a public hotline, web site, and outreach program.

The Douglas County Information Public Hotline can be activated by the county emergency management director when established conditions are reached prior to, during, or after a public health threat, disaster, or emergency in the county. The purpose is to provide information to the public via live operators who are housed at the library to take non-medical calls.

The corresponding web site (www.togetherprepared.org) serves both Together Prepared and the information center. This site provides year round preparedness information for the general public and vulnerable populations and maintains the hotline's home page during any event that triggers the call center to open.

A training program from the mobile library services assists local agencies that serve different segments of the vulnerable populations - the elderly, persons with low income and persons with cognitive disabilities- to become better prepared disasters. The one-on-one, individualized training provides an opportunity for the director and assistant directors of each facility to develop enhance or re-evaluate their preparedness plan, which they would not have done otherwise without this program.

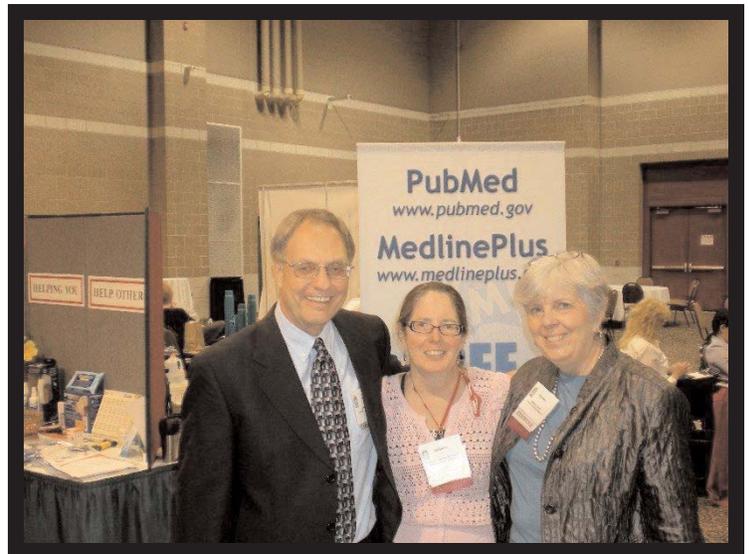
Let's keep our fingers crossed that no disasters, emergencies or public health threats happen soon in Douglas County, Kansas. But if a disaster occurs, the established partnerships will help citizens be better prepared by being better informed.

Together Prepared is a 2010 winner of the Outstanding Public Library/ Public Health Partnership Award.



Want some excitement? Why not exhibit?

Dana Abbey and Jim Honour, National Network of Libraries of Medicine, MidContinental Region (MCR) Coordinators, recently exhibited for the National Library of Medicine (NLM) at the American College of Sports Medicine's annual meeting in Denver. Over 4,300 health professionals and researchers from around the world including those from Asia, Europe and Australia, Latin America and South America gathered to learn about cutting-edge research in the areas of sports medicine, exercise science, fitness, wellness, and other health care professions. MCR Coordinators exhibit at national events like this one, as well as local, state and regional conferences to promote NLM resources for health information literacy, public health outreach, medical research, and clinical care. Attendance at these events can range from 50 to 20,000 people, and the locales can range from a rural setting, an urban metropolis, even a ski resort.



MCR Coordinators
Jim Honour, Siobhan Champ-Blackwell and Barb Jones
share health information in the exhibit hall.

Why do conference attendees visit us in the exhibit hall?

Many times, they are not familiar with the NLM, so they stop to learn more; they come to share how pleased they were with NLM resources - one even gave Dana a hug because she loved PubMed so much. Some want to know how to access full text in PubMed. Some learn a new skill, like how to open MyNCBI accounts and take advantage of many of its features. Some are interested in

See "Exhibit" on page 6

"Exhibit" continued from page 5

viewing citations for their published works in PubMed. Others are not familiar with PubMed and want to learn more about searching. And still others want to learn about the new MedlinePlus Connect. Visitors also come by for swag, or promotional items like MedlinePlus pens, InfoRx prescription pads, trifold brochures on MedlinePlus for Health Professionals, PubMed Basics, Loansome Doc, NLM sticky notes, laminated pocket prompt cards. But really, visitors are often drawn to the NLM exhibit because of the enthusiasm of the exhibitors!

What's the best thing about exhibiting?

Dana: Just one thing? Well, there are lots of things I like about exhibiting. I like meeting people and learning about how they use the tools from NLM. I like being able to help them troubleshoot an access issue or help them formulate a particularly difficult search. I like learning about the work they do - from patient care, to research, to instruction. If it's an out of town meeting, I like that I get to travel and learn about a new city, or revisit favorite spots in a familiar place. I also like meeting other exhibitors - I learn so much about industries that I would never be exposed to otherwise.

Jim: I would agree with all that Dana mentioned. I met several behavioral physiologists at the exhibit; I didn't realize there was such a discipline. I always learn something from visitors to our booth. I'm also grateful to meet someone who has used PubMed, etc., and is appreciative to have access to NLM products. I met a resident from the University of Utah who was quite familiar with PubMed and stopped to let us know. Exhibiting with another colleague also allows me to learn more about them!

What are some of the challenges to exhibiting?

Dana: I like to wear 4" heels - sometimes it is very challenging when standing on a concrete floor for 8 hours. Putting up the display for the exhibit can also be an extra challenge for someone of my height - which is why it's great to exhibit with Jim because he is tall. Another challenge is staying fit and eating healthy while on the road - I research ahead of time to learn about healthy eating options and places that I can run or go to the gym.

Jim: Dana, I sympathize with your having to wear those spikes and standing in them for long periods. Ouch! But honestly, anyone visiting with you wouldn't know that was a problem. I'm always challenged to be knowledgeable about NLM products. We have so much content to work with, and for me the key is repetition; the more I review our products and the more demonstrations I conduct, the more I know!

Have you met anyone famous at an exhibit?

Dana: Oh my goodness, yes! I met former Surgeon General Richard Carmona who thanked me for my "service to the world," and Barb Jones, Missouri/Advocacy Coordinator and I met Olympian Bruce Jenner.

Jim: Wow, Dana! That's exciting to know you've met some celebrities. I'm not aware of meeting anyone famous, but you never know.

Exhibiting sounds fun, how can I get in on the action?

So, far in this contract year Coordinators from across the U.S. reported on 63 exhibits at conferences attended. That number represents national exhibits alone and does not include exhibiting done at local meetings/conferences - and there are many more opportunities out there.

The MCR invites member librarians to participate in a program to support promotion and training on NLM resources. If you enjoy meeting people and are an enthusiast of NLM resources, you may want to consider training in this program. MCR coordinators will certify NN/LM members as exhibitors to work at conferences in their states, or in some cases, exhibit with a MCR coordinator at a national conference. The interested librarian will be required to attend a webinar on exhibiting and after demonstrating a working knowledge of NLM databases will be certified as an exhibitor. Funding will also be available specifically to support a certified librarian to exhibit and present at a local meeting. Information on the training and award will be posted later this year.

If you are interested in participating in this training program contact Dana Abbey for details.

-Dana Abbey, Colorado/Health Information Literacy Coordinator

-Jim Honour, Wyoming Coordinator



Whooo Says...

Dear Whooo,

I am a hospital librarian in a very busy urban hospital. I'm very happy in my job, and seem to have a successful relationship with the physicians and staff that I serve. However, lately I've been thinking about all the people who don't use the library, or who use it only very occasionally. Surely they must have similar information needs as those who do use the library. I'm wondering about ways that I can reach out to those segments of the hospital staff. Do you have any ideas?

Thanks,

Thinking about connecting

Dear Thinking,

You pose an interesting question. I appreciate your thoughts and your efforts in trying to expand the use of library provided information. There is a developing body of research and literature about how health care providers find information and the impact of that information on their practice. As librarians, we all know that the services and information we provide are valuable. So, how do we reach out and decide who we should be serving and how best to do that?

I think the answer to your question falls back into the marketing part of your job. In this case, I'm defining marketing as the research or investigation you should do to determine the needs and preferences of your audience. There is an article in the latest issue of Information World (Browne, Melanie. "Communicating Value Through Strategic Alignment". Information World. 151:5 pp 25-30) that discusses this very question.

According to Browne, one of the ways of determining your customer needs is to segment your audience. Traditionally when we think about looking at the segments of our audience, we think of geography or demographics. Geography, referring to location, might be important in this discussion if we were talking about outlying clinics, but I don't think that is the crux of your question. Demographics, referring to population (gender,

race, income, etc.) or occupation, is also very pertinent to library services, but again, not the crux of your question. I think your question has to do with two other segmentation areas: psychographic and behavioral.

Psychographic segmentation is used to divide your users into groups such as personality, lifestyle, values, attitudes or opinions. Behavioral segmentation looks at how people use products and services, so you might be considering such things as time, place, occasions, benefits and which products or services are used. These additional types of segmentation will allow you to make distinctions between those who appear the same demographically, and seem to have the same lifestyle demands, but have very different needs and attitudes about the information they want and use.

Using Browne's comparison of two different individuals, let's look at Mary and Sue. Both women look the same in demographic and lifestyle descriptions. Both are the same age, gender, job classification and education level. Both have high stress jobs and high competing priorities. The difference comes in their needs and their attitudes about information. Mary needs to have access to multiple research tools from remote locations. She uses a smart phone extensively. She wants detailed training on how to use databases and needs to have a highly functional, easy to use library web site available. Mary loves to browse through data, do her own research, review reports and select pertinent information for herself. Sue, on the other hand, needs ready reports, customized research requests and wants information pushed out to her. She is focused on convenience, and only wants to see what she needs rather than reviewing all the research for herself.

Looking at the profile of these two employees, we can see that serving them would take different approaches. I think that using this type of marketing analysis might give you some insight into how to more effectively reach your populations. To find out more about how your users want to use information, you will need to do regular assessments of user preferences. You will want to find out things such as:

- whether your users prefer to do their own searching, or whether they prefer for you to do it for them
- their level of searching skill and need for training, and on which databases
- which databases contain most needed information for the individual user

See "Whooo Says" on page 8

- how does each individual prefer to receive their results - do they want a list of relevant citations, or do they prefer one or two pertinent articles
- do they find table of contents updates useful

After you collect the answers to your questions, you can analyze them and group your users appropriately. Using this approach, I think you will find which of your services and resources are valuable to your existing users. You may find that you need to adjust your services for different groups, or focus your activities in a new way to reach others. It may be that a combination of different approaches is what is necessary in your hospital.

After you complete your analysis, remember to prioritize your findings, acknowledging that you cannot effectively serve 100% of the employees and staff without increasing your staff and resources. I believe your primary goal is to reach those individuals in the organization that are directly involved in diagnosis and treatment, policy and systemic decision-making. If you can successfully reach these individuals, your influence and impact on the provision of health care will surely increase.

I hope this discussion helps with your question, Thinking. I'm anxious to hear what you discover when you take a different look at your hospital population.

Sincerely,

Whoa

Integrating the Medical Library into Hospital Emergency Planning

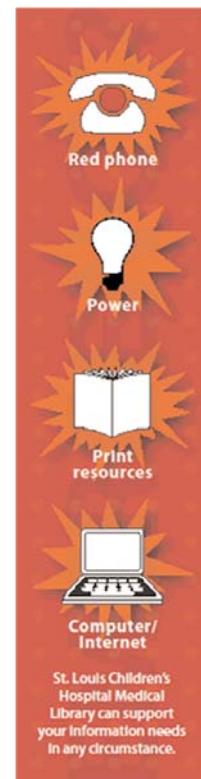
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Saint Louis Children's Hospital (SLCH) Medical Library is committed to continuous service, even in the event of an emergency. As the Medical Librarian, I have always been interested in emergency planning. I approached the safety and telecommunications manager about joining and presenting to the Emergency Preparedness Committee. I wanted to find answers to two

questions: how can the medical library support emergency preparedness and what does the medical library and librarian have to offer SLCH in the event of an emergency. The hospital's motto is 'we do what's right for kids' and because children are considered a vulnerable population it's even more important to continue information services in an emergency situation.

An RML award for "Continuity of Health Information: Integrating the Medical Library into the Hospital Emergency Plan" supported surveying other pediatric hospitals in the region to determine the level of library integration in emergency planning. The responses demonstrated that there is minimal library or librarian involvement in the emergency planning in the region while there is recognition of the need for access to information during an emergency. The award enabled SLCH's library to become a go-to location for staff during emergencies. Emergency power and lighting were installed in the library to ensure lights and power for the computers in the event of a power failure. A red power fail phone was also installed for phone access; this is especially important if cell towers fail so the staff of the hospital will be able to contact their family. Two laptop computers, extra batteries and rolling carts were purchased for mobile access to information as well as a projector for teaching or presenting. A poster was made advertising the integration of the medical library into the emergency plan and placed in strategic locations in the hospital. Bookmarks were also made and distributed along with a small version of the poster that was laminated for posting in patient care units.

I have become an active member of the Emergency Preparedness Workgroup and participate in all of the emergency drills as part of the command center. I attend trainings and have added a small section about how the library is involved in the hospital emergency plan. The response from hospital staff has been incredibly positive, they are pleased they have a designated space to communicate with loved ones if need be, that someone is thinking about their information needs and that there are hard copy pediatric resources available at all times in any circumstance. The library is a natural community gathering place and ideal to service continuity. The best place to start is to ask and offer services.



mHealth: High Tech Solution to Global Health Information Access

Mobile communication technology has become so prevalent in society - even surpassing infrastructure such as paved roads and electricity in numerous low and middle income countries - that wireless signals now cover over 85% of the world's population. The International Telecommunication Union, the United Nations specialized agency for information and communication technologies, reports there are 5 billion wireless subscribers - creating an immense opportunity to connect users to mobile health resources.

Mobile health, or mHealth, is a component of eHealth. While there is no standard language to describe mHealth, the Global Observatory of mHealth defines it as "medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices."

Some examples of medical and public health practice being supported by mobile devices include:

- In Kenya, cell phones are used to monitor vaccinations, outbreaks, and the redeployment of resources for polio.
- In Turkey, text messages are sent to encourage individuals struggling to quit smoking.
- The U.S. Army uses secure text messaging for "mCare," an outreach program to facilitate communication with wounded soldiers.
- Cell phones are used throughout the African continent to track transmission of mosquito-borne diseases like malaria and dengue.
- Text4Baby (<http://www.text4baby.org/>) generates text messages in English and Spanish to help new mothers through pregnancy and the infant's first year.

Yan Chow, Director of Innovation and Advanced Technology for Kaiser Permanente estimates there are more than 9,000 health related smart phone applications, or "apps," on the market right now. So many, in fact that the Food and Drug Administration has begun to regulate certain mHealth apps which transmit images - deeming them a "medical device."

The National Institutes of Health (NIH) - and its nonprofit organization Foundation for the National Institutes for Healthcare - demonstrated their

commitment to the advancement of mobile health by awarding 150 grants in 2010 for mHealth research. The NIH also sponsored the Mobile Health Summer Institute this summer, bringing together behavioral, social sciences, and clinical research scientists to discuss future applications of mHealth.

The National Library of Medicine, one of the 21 institutes of the NIH, is also actively supporting the development of mHealth. Currently 14 of its biomedical science information databases are available with mobile applications - either as a mobile optimized site, or downloadable, as an app, to a mobile device. With mobile optimization, users still need Internet access - the content will be optimized to enhance the display on the device used. Mobile access to these resources connects people in underserved and geographically remote areas to authoritative health information for patient care, public health outreach, and emergency response.

Here are a few of my favorite NLM resources available in mobile formats:

- **PubMed®** - Mobile optimized PubMed Mobile Beta provides a simplified mobile friendly Web interface to access PubMed
<http://www.ncbi.nlm.nih.gov/m/pubmed/>
- **MedlinePlus®** - Mobile optimized site available at <http://m.medlineplus.gov/>
- **LactMed®** - App for iPhone/iPod Touch and Android can be downloaded at
<http://toxnet.nlm.nih.gov/help/lactmedapp.htm>
- **Radiation Emergency Medical Management (REMM)®** - Downloadable to iPhone/iPod Touch, Android, Blackberry, Windows Mobile
<http://www.remm.nlm.gov/downloadmremm.htm>
- **Wireless Information System for Emergency Responders (WISER)®** - Downloadable to iPhone, iPod Touch, Blackberry, Palm OS PDAs, Windows Mobile devices, or access via web browser:
http://wiser.nlm.nih.gov/choose_platform.html
- **DailyMed®** - Mobile optimized site available at: <http://dailymed.nlm.nih.gov/dailymed/mobile/index.cfm>

For a complete list of all available NLM mobile applications, please visit
<http://www.nlm.nih.gov/mobile/index.html>.

-Dana Abbey, Colorado/Health Information Literacy Coordinator

What is a QR Code?

QR stands for quick response and was developed in Japan, by a subsidiary of Toyota in 1994, to track vehicle parts. In 2011, QR codes have evolved to become a tool for storing and retrieving information at the moment of need. Japan is the largest user of QR codes where you'll find that McDonalds places QR codes on burger boxes to lead people to nutrition information.

A typical one dimensional barcode (Image 1), which we might find on a can of beans, can contain up to 22 characters of information. QR Codes are two-dimensional (Image 2) and can have approximately 4300 alpha-numeric characters embedded into them.



Image 1: Typical Barcode



Image 2: QR Code

How does it Work?

First, you need a Smartphone. What is a smartphone you might ask? A smartphone is a cross between a personal digital assistant (PDA) and a mobile phone. A smartphone has a full-blown operating system and connects to the Internet using a fee-based data plan. Android, iPhone, Blackberry and Windows phones all have their own unique operating systems and QR codes work with all of them.

One of the defining features of a smartphone is the app (short for application). Apps provide you a content-specific doorway to the Internet. For example, you can download an app for YouTube, which when opened, takes you directly to the YouTube site without having to open the browser on your phone and then typing in the URL for YouTube.

Second, in order to scan a QR code, you need a QR reader app. The reader uses the camera built into your phone to scan the code. QR reader apps are free. Visit the following link to find a QR reader that works with your phone:

<http://www.mobile-barcodes.com/qr-code-software/>.

Make a QR Code

Making a QR code is very simple and there are many free sites available; in most cases, registration is not required. Here is a list of sites that I have tried and have found very easy to use.

- Google - <http://goo.gl>
- Kaywa - <http://qrcode.kaywa.com>
- QR Stuff - www.qrstuff.com
- Delivr - <http://delivr.com>
- Bit.ly - <https://bitly.com>

Each of the above sites offers slightly different options for the type of information you can embed into the code. For example, Google only allows you to make a QR code that will point to a URL, but QR Stuff offers most of the options below:

- Website URL
- Telephone Number
- SMS Text Message
- Email Address
- Email Message
- Contact Details
- Google Maps Location
- Link to Social Media Sites
- YouTube Video

If you are making a QR code that points the user to a URL, in most cases the URL will have to be shortened. Google, Delivr, and Bit.ly all shorten the URL automatically. If you use a site that doesn't shorten the URL automatically, you can use www.tinyurl.com to shorten the URL before you make a QR code. Watch this 90 second video to see how quickly a QR code can be made using Google: <http://screencast.com/t/9ECFRjHjVxl>

QR Codes at your library

The following URL takes you to the library success wiki that has many examples of how libraries are using QR codes:

www.libsuccess.org/index.php?title=QR_Codes. A few ideas are:

See "QR Codes" on page 11

- Promotions
- Scavenger Hunts, library tours
- Directions
- Link to library catalog
- Ask a Librarian
- Connect to Online Journal Content
- Library Hours, Contact Information
- Training tutorials

Track Usage

Some of the same services that help you create a QR code also provide the means to track code usage. Goo.gl, Bit.ly and Delivr all offer usage detail (see URLs above). These sites will show usage for the hour, day, week, and month; which country the scan came from, the type of browser, and type of phone. After you make the QR code, a link will appear to view the stats.

Why QR Codes

QR codes are a simple way to add an interactive layer to the services you offer at your library. A recent Pew Internet & American Life survey

revealed (Image 3) that approximately half of all 18-49 year olds own a smartphone and use it to access the Internet. This is an opportunity to provide quick, alternative routes to library content and engage our users with a preferred technology.

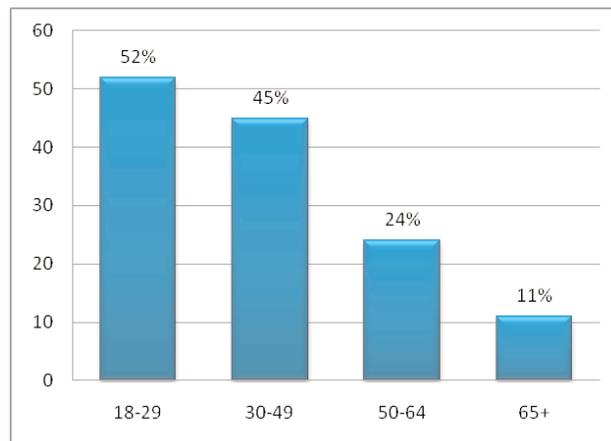


Image 3: Accessing the Internet with a Smartphone

-Rebecca Brown, Kansas/Technology Coordinator

¹ Pew Internet & American Life Project: Smartphone Adoption and Usage. Survey conducted April 26-May 22, 2011. Aaron Smith. <http://www.pewinternet.org/Reports/2011/Smartphones.aspx>

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