

**JoCoHealth Database  
NN/LM RFP: Access to Electronic Health Information 2004  
Johnson County Library  
Overland Park, KS**

Final Report Submitted by:  
Erica Reynolds, Web Content Manager  
9875 West 87<sup>th</sup> St.  
Overland Park, KS 66212  
[reynoldse@jocolibrary.org](mailto:reynoldse@jocolibrary.org)  
913-495-2429  
913-495-2441

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## NARRATIVE DESCRIPTION

### Executive Summary

The JoCoHealth Database project intended to:

- Create a public database of community health resources and services that included: A Web-based interface with multiple search, display, and printing options and a managed data entry system to allow various administrative users access to add and edit data.
- Expand the content of the database to include information on health resources and services available to all Johnson county residents.
- Help other libraries provide Web-based information on health resources and services in their communities.

In order to accomplish these objectives, the JoCoHealth partnership, headed by the Johnson County Library, planned to develop a new database and Web interface using Microsoft .NET programming language. The database would direct Johnson County residents to health resources and services available to them, and the Library would provide the database code and documentation to other libraries to help provide Web-based information on health resources to their communities.

A database was developed and documentation was written so that any library with basic network support could implement the database in their environment. However, a number of factors and changes in the community, the partnership, and the Library's own administration contributed to these objectives not being met successfully. Although many efforts have been made to salvage the database programming that was completed, we have decided that the environment has changed so dramatically, it is better to start over on our own, and re-develop the project from the start.

However, during the project period, a number of strides were made to enhance the public's knowledge of the JoCoHealth Web site, MedlinePlus, and the community health resources available through the JoCoHealth Web site. These accomplishments include:

In addition to staffing JoCoHealth booths at a number of one-time events and community health fairs, the Library has regularly staffed booths at annual fairs, becoming a fixture at the major community health events.

Since 2005, Library has staffed booths to promote JoCoHealth and MedlinePlus resources at the County Health Fair. This two-day, two-site event is held annually. At these health fairs, Sarah Handgraaf, JoCoHealth Web Developer handed out JoCoHealth, NLM, and other health-related materials, including mini-hand sanitizer bottles branded with the JoCoHealth logo to over 300 people annually.

Since 2005, the Library has staffed a booth to promote JoCoHealth and MedlinePlus resources at the annual Saint Luke's Health Fair, held in June.

Since 2005, the Library has staffed a booth to promote JoCoHealth and MedlinePlus resources at the annual SeniorQuest convention in Overland Park. Senior quest is Johnson county's largest, most comprehensive annual information fair for older adults and regularly draws more than 2,500 seniors.

Since 2005, the Library has staffed a booth to promote JoCoHealth and MedlinePlus resources at the annual School Nurse Symposium hosted by the Johnson County Health Department.

These booth events are always organized and staffed in addition to the Library's own booth to promote traditional library services as we learned early in the process that if we tried to promote JoCoHealth resources at a traditional library booth, the public only wanted to ask about traditional services—not consumer health. Therefore, Library staff invested in booth displays and promotional materials specific to JoCoHealth.

The Library has purchased over 4,000 bottles of hand sanitizer branded with the JoCoHealth logo. These have been distributed to the community along with printed materials promoting JoCoHealth and MedlinePlus resources.

In order to better integrate JoCoHealth into the fabric of the health care community in Johnson County, the Library and partners have merged the monthly JoCoHealth meetings with the bi-monthly CHAP (Community Health Assessment Process) meetings. Because CHAP meetings are attended by local elected officials, physicians, nurses, medical center representatives, health clinic representatives, public health employees, and other local health leaders, merging the two meetings brings a higher profile to JoCoHealth and helps to ensure that JoCoHealth content can be developed to specifically address current public and consumer health issues in the community.

The JoCoHealth Web site and community initiative received the Kansas 2006 Health Award for Libraries from the U.S. National Commission on Libraries and Information Science (NCLIS).

Furthermore, the Library has made an even greater commitment to the provision of consumer health information in the county by creating a reference position with a special emphasis on consumer health information. Melody Kinnamon was hired in 2007 to serve as the full-time consumer health reference librarian.

### **Geographic region/number of counties**

Johnson County, KS

### **Collaborations/Partnerships**

In addition to the Library, JoCoHealth included Johnson County Health Department, Community Health Assessment Process, Johnson County Mental Health Center, Regional Prevention Center, and Saint Luke's Health System. During the project, all of the partner organizations experience major changes in personnel due to retirements and internal reorganizations. These major changes to the original players created many challenges. One of the lessons learned was that the original plan for the JoCoHealth database was based on the ideas of the original partners and the needs of the environment in 2003-2004, but when the players changed and the environment changed, the original database plan was no longer feasible. First of all, the Health Department had originally wanted a database of low-cost health options to help with their referral line, but after analyzing the services available to Johnson County residents, it became clear that a database structure was overly complicated and did not fit the actual information need. For example, only a handful (3-5) clinics provide low-cost medical services to un-insured or underinsured Johnson County residents, so a

database structure is not really needed and overcomplicates the information retrieval and dissemination process. Additionally, although those 3-5 clinics provide a wide range of services which could all be categorized in the database, the structure, availability, and eligibility of those services changes regularly due to regional, state, and federal funding fluctuations, so it's not feasible to maintain very specific data for the public on each of the clinic programs and services and ensure that specific data is accurate.

### **Training**

Training was not developed, but a number of community health fairs were attended to inform the public of health-related resources available through the JoCoHealth Web site—specifically NLM resources and resources for the under/un-insured.

### **Training sites**

N/A

### **Exhibits**

The community health fairs attended are detailed above in the executive summary.

### **Resource materials**

The main promotional/marketing materials included hand sanitizer bottles branded with the JoCoHealth logo, printed fliers promoting the JoCoHealth Web site along with available health resources, health services, and MedlinePlus. Community health resources are available at: [www.jocohealth.net](http://www.jocohealth.net).

### **Web sites**

Although the original database plan was eventually determined not to be feasible, there is a great deal of opportunity for development and optimism as we move forward. We have now developed new partnerships and are working to cultivate these relationships to enhance and redesign the JoCoHealth Web site. We continue to promote NLM resources, particularly MedlinePlus, to our community and staff a number of booths at community health fairs throughout the year that emphasize the JoCoHealth Web site ([www.jocohealth.net](http://www.jocohealth.net)).

The new Web developer responsible for JoCoHealth is Michelle Beattie. Michelle is an experienced and talented medical librarian who will work with the new Consumer Health Librarian, Melody Kinnamon to re-vision and re-build the JoCoHealth Web site and database. Although the new site may look quite different in the future, and the branding might change to better meet community needs, the Johnson County Library is committed to providing consumer health information to the public—both in terms of personalized and Web-based services.

### **Document delivery and reference services**

N/A

### **Approaches and interventions used**

Originally, we had used the NN/LM funds to contract out the programming for the database, and we planned to work with partners to identify health services and resources available to Johnson

County residents to populate the database. The database was to be designed to allow external partners to enter information on health services and resources, and eventually to facilitate linkages with the NLM Go Local system.

### **Evaluation**

Because we did not complete the database as planned, we did not complete an evaluation of the project.

### **Problems or barriers encountered**

A number of factors and changes in the community, the partnership, and the Library's own administration contributed to the original objectives not being met. As detailed above, all of the partner organizations including the Library, encountered major staff changes due to retirements and reorganizations, so most of the original players are no longer involved with the project. Additionally, since the project started, it's no longer possible to link from a local database into Go Local. The possibility of linking to Go Local was one of the main reasons to try to list and maintain all health resources and services available to Johnson County residents, so without the option to link to Go Local, that original goal and database requirement no longer exists.

Originally, we had used the NN/LM funds to contract out the programming for the database, because we didn't feel that JCL staff had the time to develop the database. However, not having the time to develop the database also meant that our staff did not have the time to adequately manage the project and oversee the work of the contracted programmers. Therefore, Library staff had to re-do much of the work that was not completed with satisfaction. For example, Library Web staff spent weeks testing and retesting the database, finding many bugs that should have been found in by the contracted programmers. These bugs were corrected, but we did not anticipate needing to do such extensive testing and retesting of the basic functionality. Additionally, the documentation that was provided by the contracted programmer to accompany the database and to allow other libraries to implement the database in their own environment to provide a Web-based community health database was not complete and included so many standard English errors that Library staff had to re-write the entire documentation and implementation guide.

Additionally, since that contract was completed, we have encountered a number of problems with the database in our environment. These are not really errors, just issues that need to be dealt with as we upgrade our software and in turn, need to make updates to the database. However, because the database development was completed by a contractual programmer, finding and updating the database is very time consuming for our programmers (who were already time-crunched and have other priorities).

All of this is complicated by the fact that the JoCoHealth database was developed in 1.1 .Net and now we are on a 3.5 .NET platform. Ultimately, the database no longer meets our needs and it isn't flexible enough to modify. In hindsight, it seems the decision to contract out the programming was a bad one. Our new plan is to re-assess the specifications and community needs from the ground up, and if it's determined that a database structure is needed, we will create a new database in-house. Our Information Technology department is undergoing changes as well, and they plan to hire another programmer to help with these types of projects.

### **Continuation plans**

The Library remains strongly committed to providing consumer health resources and services to the community and has made important hires and staffing changes to reflect this commitment. The Library will continue to provide health information and resources, and to specifically promote MedlinePlus resources to the public via the JoCoHealth Web site, community booths, and other means. The Library will continue to absorb the staffing, collections, technical, and promotional costs to provide and promote consumer health resources and services to the community.

### **Impact**

Since the project was not completed in its intended form, it did not have the impact we had hoped. However, the biggest impact of the project was to further the Library's commitment to consumer health services, and by evaluating what worked and what did not work in the project, the Library will be able to more effectively provide consumer health services in the future. Additionally, although the project was not successful based on the original objectives, no one has questioned the Library's primary goal to provide consumer health as a major service to community members, and in fact, we have increase the number of staff and resources committed to this goal.

### **FOLLOW-UP QUESTIONS**

If answers to the follow-up questions are contained elsewhere in your report, indicate where they are located.

**1. Were your original project goals and objectives met? If not, why not?**

No. This is discussed above in "Problems or barriers encountered."

**2. What significant lessons were learned which would be of interest or use to others conducting outreach projects? Which strategies were the most effective in implementing the project?**

I am not sure how we would have predicted the massive staffing changes that occurred as the project started to get off the ground. However, I think the biggest lesson we learned was that if Library staff didn't have time to develop the actual database code, they probably didn't have time to coordinate and manage the development by an outside contractor. The database that was developed was not flexible enough to accommodate upgrades easily in our environment, and since our programmers didn't write it, changes to the code were difficult to implement successfully later.

**3. If you were to start all over again, what, if anything, would you change about your goals, project plans, etc.?**

I would wait until our own programmers could set aside the time to develop the database themselves. Also, the programmer we contracted with charged forward and developed code before we were really finished with the specifications. We didn't have clear and well-defined project management, and due to staffing changes, it was difficult to keep the project at a high priority for new players. Looking back, I realize how much of the original idea was that of the original partners and while there was evidence for the need, once the option of linking into Go Local dissolved and the original partners were no longer involved, the actual goals

of the project seemed less certain, and the basic structure and concept of the database no longer seemed helpful.

**4. What advice or recommendations would you give to anyone considering a similar outreach effort?**

When I wrote the proposal, I had only been with the Library for a few months, and while we had the full support of our organization and community partners, I think that waiting until I had been with the Library longer would have been beneficial. For others considering a similar project, I would recommend waiting to write any proposals for external funding until one has been with an organization for at least one year so that you might better assess potential barriers and issues. In my own situation, I underestimated the complexity of designing the database specifications and overestimated the assistance we would have from the Library's own programming staff to help manage the work of the contracted programmers.

**5. Please describe plans for disseminating lessons learned and other information about the project, such as through a conference presentation or publication. In accordance with the NIH Public Access Policy (<http://publicaccess.nih.gov>), project directors are asked to submit voluntarily to the NIH manuscript submission (NIHMS) system (<http://www.nihms.nih.gov>) at PubMed Central (PMC) final manuscripts upon acceptance for publication.**

Because the project objectives were not met, we are not planning specific presentations or publications, although we will certainly discuss this project and our lessons learned when presenting on JoCoHealth, database projects, grant-writing, and community partnerships in the future.