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## Access to Electronic Health Information: Johnson County Public Library

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**JoCoHealth.net Community Resource Database**  
**Proposal submitted in response to NN/LM RFP: Access to Electronic**  
**Health Information 2004**

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## Table of Contents

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<b>I. Technical Proposal.....</b>	<b>1</b>
A. Cover Sheet.....	1
B. Checklist of Mandatory Qualification Criteria for the Lead Institution.....	2
C. Project Narrative .....	3
1. Abstract.....	3
2. Introduction and Background .....	4
3. Identification and Description of Target Population and Geographic Area .....	6
4. Identification of Need .....	11
5. Project Objectives .....	12
6. Methodology.....	17
7. Evaluation Plan.....	23
8. Publicity/Promotion.....	25
9. Personnel.....	26
10. Facilities/Institutional Support .....	28
11. Continuation of Activities After Project Completion .....	28
12. Other NLM or NN/LM Support.....	29
<b>II. Cost Proposal .....</b>	<b>30</b>
A. Cover Sheet .....	30
B. Budget Form .....	31
C. Budget Narrative .....	32
<b>Tables &amp; Charts</b>	
Table 1. Increasing Johnson County Poverty in Context .....	7
Table 2. Enhanced content and functionality through the proposed database .....	14
Table 3. Activities relating to methodologies.....	18
Table 4. Estimated hours of project work and percentage of total hours worked.....	27
Chart 1. Evaluation methodologies are closely tied to the project objectives.....	24
<b>Appendix.....</b>	<b>A1</b>
Letters of commitment from lead and partner organizations .....	A2-A5
Curriculum vitae for proposed personnel	
Tim Rogers, PI.....	A6
Monique Sendze .....	A8
Atabong Fombon .....	A10
Erica Reynolds .....	A12
Sarah Handgraaf .....	A14
Area Map .....	A15

**I. Technical Proposal in response to NN/LM RFP: Access to Electronic Health Information 2004**

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**A. Cover Sheet information**

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**B. Checklist of Mandatory Qualification Criteria for the Lead Institution (RFP: Access to Electronic Health Information 2004)**

Single Institution \_\_\_\_\_ OR Multi Institutions  X

Lead Institution Name:  Johnson County Library

Library's LIBID (if applicable): \_\_\_\_\_

Please fill in or check the appropriate answer to each of the following statements.

1. **The institution is an NN/LM member.**

YES  X  NO \_\_\_\_\_

2. **The institution:**

(a) **is a DOCLINE participant**

YES \_\_\_\_\_ NO \_\_\_\_\_ OR

(b) **has submitted an application to become a DOCLINE participant**

YES \_\_\_\_\_ NO \_\_\_\_\_ OR

(c) **is a Loansome Doc participant in order to provide document delivery service to the targeted population for the duration of the project.**

YES  X  NO \_\_\_\_\_

3. **The total amount being requested does not exceed:**

a) **\$10,000 (including indirect cost) for a Single Institution**

YES \_\_\_\_\_ NO \_\_\_\_\_ OR

b) **\$40,000 (including indirect cost) for a Group of Institutions**

YES  X  NO \_\_\_\_\_

## **C. Project Narrative**

### **1. Abstract**

In collaboration with the partners of JoCoHealth.net, Johnson County Library proposes to improve access to electronic health information by developing a searchable public database of community health resources. The database will be accessible from the JoCoHealth.net Web site and will enhance access to the National Library of Medicine's health resources through integrated links from JoCoHealth.net to MedlinePlus. Once developed, the library will provide free access to the database source code and project documentation to enable other libraries to enhance access to electronic health information in their communities.

For the proposed project, the primary target audiences include the residents of Johnson County and the health-related service personnel who serve the county's residents. Secondly, other libraries desiring the open source and project documentation consist of another target audience. In addition to the lead organization, the project partners include Johnson County Health Department, Community Health Assessment Process, Johnson County Mental Health Center, Regional Prevention Center, and Saint Luke's Health System.

Methodologies to be employed include 1. Utilizing the prototyping model to develop the database and Web interface; 2. Developing and implementing an information design plan for the content management and end-user interfaces; 3. Completing usability tests of the content management and end-user interfaces; 4. Initiating database implementation through training, data input, promotion, and use; 5. Identifying, coordinating, and entering information on the health resources and services available to Johnson County residents; and 6. Sharing the database code and project documentation to allow other libraries to provide a similar service to their communities.

It is anticipated that as a result of employing these strategies, 1. Residents and health service personnel will utilize the database; 2. Residents and providers will identify the database as a helpful resource; 3. The database will improve access to health information and improve communication among health organizations; and 4. Other libraries will use the project code and documentation to build similar databases of health resources in their communities. In order to evaluate the success of the project, the evaluation plan includes an analysis of Web statistics, online satisfaction surveys, focus groups, and the compilation of statistics regarding future use of the code and project documentation by other libraries.

## 2. Introduction and Background

JoCoHealth.net is an established partnership consisting of local libraries, county service departments, non-profit organizations, and hospital systems. The partnership was developed to provide Johnson County residents with an online clearinghouse of local health-related resources and services while enhancing access to quality consumer health-related information.

JoCoHealth.net was born out of two projects involving JCL working with community partners. The first was part of a cooperative reference agreement between JCL and Saint Luke's-Shawnee Mission Health Care System that began in 1999. It brought together staff resources from JCL's reference department, the Saint Luke's library, and the Saint Luke's-Shawnee Mission Ask-A-Nurse program. Both JCL and Saint Luke's-Shawnee Mission maintained their own Web sites and linked to a shared page.

In 2001, a separate health-related project was developed that teamed the Library's technology staff with the Community Health Assessment Process (CHAP) group to produce a publicly accessible database of services and resources for Johnson County's uninsured and underinsured residents. Members of the CHAP group provided the content, while the library staff designed the database and interface. Both groups continued to maintain their own Web sites and linked to a shared page.

These two partnerships were brought together under the JoCoHealth.net umbrella Web site in 2002. A representative of the National Networks of Libraries of Medicine acted as liaison to the organizations of the partnerships. The site promoted free sources of health information, such as the NLM's MedlinePlus, and additional content included information on local hospitals and medical libraries, a calendar of local health-related events, and access to the Library's subscription-based consumer health databases. In April 2002, the JoCoHealth.net site was officially launched (<http://www.jocohealth.net>).

As the partnership has endured, development of the Web site and associated resources has continued and additional opportunities for development have emerged. When the CHAP database of health services was originally created, time was at a premium, and providing a simple web-based database of local services and resources for providers serving Johnson County's uninsured and underinsured residents was the primary goal. Although the goal was met, the lessons learned during the process of developing, populating, maintaining, and enhancing were significant. At the same time, the need for information on health services available to all county residents has grown.

To capitalize on the lessons learned through past database development projects, to improve access to information regarding services for all Johnson Countians, and to help organizations in other areas enhance access to their local health resources, the JoCoHealth.net partnership proposes to design and populate a new, expanded, and more accessible database of community resources.

**The goal of the proposed project is to: Improve access to quality health resources and services in Johnson County and help other libraries provide similar services to their communities.**

Organizations primarily involved in the project will include the JoCoHealth.net advisory board partner agencies; these organizations are listed below. Additionally, other area institutions, such as the A.R. Dykes Library at the University of Kansas Medical Center, a resource library with the National Network of Libraries of Medicine, and Shawnee Mission Medical Center, have expressed their support of the project and expect to participate in the Community Resource Database and the continued development of JoCoHealth.net if the project is funded.

**Johnson County Library's** mission is to provide access to ideas, information, experiences, and materials that support and enrich people's lives. The JCL strategic plan, entitled *Connections: Enriching Lives, Building Community*, emphasizes traditional library services while challenging the institution to build local partnerships and encourage patron community involvement. Approximately 80 percent of residents from the library's primary service population are considered active patrons (patrons who have library cards and have checked out a book or accessed the library's system within the last three years). The library circulates about 5 million items per year. On the national level, the library has been ranked first or second in its category for four consecutive years by the *Hennen American Public Library Rating Index*, which cites the library's excellent service and efficient use of resources.

The **Johnson County Health Department** is dedicated to the prevention of disease and promotion of wellness for Johnson County. The department includes five divisions including Administrative Operators, Adult and Child Care, Disease Containment, Family Health Services, and Health Education. The Health Department is the lead agency that coordinates and facilitates the Community Health Assessment Process within the county.

**Community Health Assessment Process (CHAP)** is a community partnership covering all of Johnson County, which is collectively and systematically assessing the health status and needs of the community. The organization's goal is to improve and/or maintain a high level of health for its citizenry by: Evaluating existing systems of care; establishing health priorities; recommending the



implementation of appropriate health programs, services, or education; and developing a plan for implementation, implementing the process, and conducting ongoing evaluations. CHAP has been the recipient of both the National Association of Counties Achievement Award and the Behavioral Risk Data Survey Project Award.

Helping people with mental illness is the signature goal of **Johnson County Mental Health Center**. The center offers 24-hour mental health emergency services, outpatient, substance abuse, medical services and programs for adults and children with severe emotional illness. The center serves as a major resource for persons with the severest forms of mental illness; for those who cannot afford private care; and for persons needing access to mental health care 24 hours a day. Johnson County Mental Health Center administers a number of additional programs, including a Forensics Services Unit, Family Focus (a separate children's service unit), and the Regional Prevention Center.

The **Regional Prevention Center** is a prevention resource for communities, families and individuals interested in creating and supporting environments for children to become healthy and contributing members of Kansas communities. Using the Communities that Care Prevention Model, the staff of five works with the local leaders, coalitions, school districts and parents to reduce and prevent underage use of alcohol and tobacco and prevent the abuse of alcohol, tobacco and other drugs by utilizing the Six Core Prevention Strategies: dissemination of information; prevention education; alternative activities; community-based processes; environmental approaches; and problem identification and referral. In 2003, the RPC provided over 6,500 hours of service.

**Saint Luke's Health System** includes nine hospitals and many physician practices in the Kansas City metropolitan area and surrounding region. Saint Luke's Health System provides a wide range of primary, acute, tertiary, and chronic care services. In 2003, Saint Luke's Hospital became the first Kansas City-based organization to win the prestigious Malcolm Baldrige National Quality Award.

### **3. Identification and Description of Target Population and Geographic Area Covered**

For the proposed project, there are two primary target audiences: the residents of Johnson County and the health-related service personnel who serve the county's residents by helping them access quality health information and services. A secondary audience consists of the other libraries desiring to use the source code and project documentation to implement similar databases in their communities.

As a whole, the JoCoHealth.net partnership serves the ever-growing population of Johnson County, Kansas. The county is part of the greater Kansas City, Missouri metropolitan area, and while it once acted as a bedroom community for Kansas City, the county now employs more than half its working residents. In 2000, the county’s population reached 451,086 and in 2002, the population grew by 5.6 percent to 476,536, making it one of the top 55 fastest-growing counties in the nation. According to projections, the county will exceed 630,000 by 2020.

Johnson County’s population is roughly 87 percent Caucasian, with a steadily growing minority population. According to a United Community Services community report, *Community Indicators 2003*, 60,383 (or 13 percent of) residents identified themselves as racial or ethnic minorities in 2002, a 22 percent total increase over 2000. The key groups that comprise these one out of seven Johnson County residents include Hispanics of any race, Asians, African-Americans, and the new census category “two or more races.” Persons age 65 and over comprise 10 percent of the population at 45,069, and children 17 or under comprise 26 percent of the population at 124,728. Although Johnson County is generally considered a very affluent area, Johnson County poverty rates have been increasing drastically, as demonstrated in Table 1 (page 8).

The county is located on 477 square miles in northeastern Kansas, with the Kansas and Missouri state line comprising the eastern boundary of the county. Johnson County includes 21 incorporated cities and towns. (Please note the area map in the appendix, page A15.)

The second target audience is comprised of the county’s health-related service personnel. These personnel work for county departments and health care provider groups, including hospitals, mental health, home health, and rehabilitation centers, and serve the county’s residents by helping them access quality health information and services.

**Table 1. Increasing Johnson County Poverty in Context**

	2000 Rate & Number	2001 Rate & Number	2002 Rate & Number	Percent Change 2000 – 2002
<b>Child Poverty – Children Under 18</b>				
<b>Johnson County</b>	3.4%	3.8%	7.6%	
	3,942	4,418	9,160	<b>+132.4%</b>
KC Metro	10.9%	11.0%	12.7%	
	50,502	50,198	58,185	+15.2%
Kansas	11.5%	12.7%	15.6%	
	80,439	81,873	105,577	+31.3%
United States	16.1%	16.4%	17.2%	
	11,386,031	11,566,439	12,166,967	+6.9%
<b>Senior Poverty – Seniors Age 65+</b>				
<b>Johnson County</b>	3.6%	5.6%	4.7%	
	1,487	2,460	2,097	<b>+41.0%</b>

	2000 Rate & Number	2001 Rate & Number	2002 Rate & Number	Percent Change 2000 – 2002
KC Metro	7.2%	8.1%	7.7%	
	13,734	15,466	15,038	+9.5%
Kansas	8.1%	9.9%	8.8%	
	26,840	32,713	29,438	+9.7%
United States	9.9%	10.2%	9.6%	
	3,287,774	3,400,686	3,232,066	-1.7%
<b>Total Persons – All Ages</b>				
<b>Johnson County</b>	3.4%	5.0%	6.0%	
	15,323	23,080	28,318	<b>+84.8%</b>
KC Metro	8.5%	8.9%	9.3%	
	147,703	157,177	166,717	+12.9%
Kansas	9.9%	11.3%	12.1%	
	257,829	294,800	316,931	+22.9%
United States	12.4%	12.1%	12.4%	
	33,899,812	33,419,993	34,763,085	+2.5%

*Source: United Community Services, 2004*

*Organization-specific information*

**Johnson County Library**

a. Demographics of the populations served

The Johnson County Library primarily serves the residents of the county, excluding the city of Olathe, which has its own city library system. The Olathe Public Library and the Johnson County Library collaborate regularly, share an online public access catalog, and grant reciprocal borrowing and computer use privileges to each others' patrons. Demographics of the county as a whole are detailed above.

b. Geographic areas covered

Every resident of Johnson County – and anyone who can provide proof of identity and residence anywhere – is eligible for a Johnson County Library card and access to all holdings and services. All services are free of charge, except for photocopying and computer printing.

c. Connectivity to the Internet

The library maintains a 40mb DS3 Line with a 6MB Internet Pipe.

d. Number of workstations available for public access to the Internet

The library maintains 399 public workstations with access to the Internet.

e. Number of workstations available for staff access to the Internet

The library maintains 332 staff workstations with access to the Internet.

f. The health information resources currently available

The Johnson County Library provides access to current, reliable consumer health information through health databases via the JoCoHealth.net Web site. The Web site connects staff and patrons to research tools such as the NLM's PubMed and MedlinePlus. Online articles are found using Infotrac Health and Wellness Resource Center, Health Source: Consumer Edition (EBSCOHost), and ProQuest Nursing Journals databases.

ReferenceUSA, a product containing a national online directory of physicians and dentists, is also available. Additionally, the JoCoHealth.net site provides information about upcoming programs and events, area hospitals and medical libraries, Ask-A-Nurse programs, and access to low-cost health care in the metropolitan area.

JCL also offers health-related information in a variety of formats that may be checked-out to patrons: print and electronic books, videos, DVDs, audio tapes and CDs, and more.

g. The health information services currently provided  
JCL provides reference service via telephone, e-mail, virtual reference, and fax, as well as to patrons who visit one of the library's thirteen locations in person. Reference staff members answer medical questions by referring patrons to research materials and consumer health information, or to an appropriate health organization.

JCL partners with other local government agencies and with hospitals to provide health-related programs on topics such as physical fitness, nutrition, mental health, and positive aging.

### **Johnson County Health Department & Community Health Assessment Process (CHAP)**

a. Demographics of the populations served

The Johnson County Health Department and Community Health Assessment Process serve the residents of Johnson County (please note demographic details above).

b. Geographic areas covered

The entire geographic area of Johnson County is included in the service area.

c. Connectivity to the Internet

The department has a T1 Internet connection.

d. Number of workstations available for public access to the Internet

The department does not provide workstations for public access.

e. Number of workstations available for staff access to the Internet

The department provides 103 workstations with Internet access for staff.

f. Health information resources currently available

The department develops brochures, and provides workshops on health topics, coordinates community health events, and serves as a consultant service.

g. Health information services currently provided

In addition to the health information provided with the general services of the department, staff offers presentations, workshops, and video conferences on a variety of public health-related topics to department staff, health care professionals, college students (through practica), select community groups, the media and the general public to promote health and prevent disease. The agency is an approved provider of continuing education by the Kansas State Board of Nursing.

### **Johnson County Mental Health & Regional Prevention Center**

a. Demographics of the populations served

Johnson County Mental Health and the Regional Prevention Center serve residents of Johnson County (please note demographic details above).

b. Geographic areas covered

The entire geographic area of Johnson County is included in the service area.

c. Connectivity to the Internet

The department has an OC3 CPS Internet connection.

d. Number of workstations available for public access to the Internet

The department does not provide public-use workstations.

e. Number of workstations available for staff access to the Internet

Mental Health provides 290 workstations with Internet access for staff use.

f. Health information resources currently available

The department uses resources from NIMH and other national groups, brochures from drug companies, and in-house developed brochures.

g. Health information services currently provided

Generally, information services are provided as part of the general mental health services.

### **Saint Luke's Health System**

a. Demographics of the populations served

Saint Luke's Health System serves the Kansas City metropolitan area and surrounding region. The majority of the population is white (roughly 75 percent), with significant minority populations of African-Americans and Hispanics (of any race).

b. Geographic areas covered

Saint Luke's Health System serves the Kansas City metropolitan area (6 counties) and surrounding region (100 mile radius).

c. Connectivity to the Internet

Saint Luke's Health System has a 7.5 Mbps link to the Internet.

d. Number of workstations available for public access to the Internet

Saint Luke's maintains 75 public access workstations with Internet connections, including the patient rooms at Saint Luke's Northland Hospital – Barry Road.

e. Number of workstations available for staff access to the Internet

Saint Luke's maintains 2,830 workstations with Internet access for staff members.

f. Health information resources currently available

The Health system's primary information services are NurseLine (a 24 hour Health Advice telephone service) and [saintlukeshealthsystem.org](http://saintlukeshealthsystem.org) which provides information to customers across the region.

g. Health information services currently provided  
Saint Luke's Health System provides a wide range of primary, acute, tertiary, and chronic care services. The main health information service provided by the system is NurseLine, a 24-hour Health Advice telephone service.

#### **4. Identification of Need**

The proposed project addresses three specific community needs: increased access to health information and services for Johnson County's rapidly growing population, including the growing underinsured and uninsured population; improved communication between health service organizations; and a comprehensive, user-friendly database designed to serve the needs of both the community and the health-partner organizations.

Although Johnson County is a wealthy area with a high standard of living, its explosive growth over the last thirty years has brought with it potentially damaging social issues. These issues include an increasing under or uninsured population, increasing poverty, and a high in-flux of new residents lacking the social connections necessary to find quality health-related services and resources. Despite being the wealthiest and most educated county in the state, according to a recent statewide survey of insurance needs, Johnson County has the second highest number of uninsured—40,856 residents—even though it has the lowest percentage at 9.06 percent. And, more than 90 percent of the uninsured in Johnson County are poor or nearly poor. While numbers regarding the underinsured are difficult to estimate, the county's poverty rate, while still relatively low overall, has grown at an alarming rate over the last three years. As Table 1 (page 7) demonstrates, child poverty in Johnson County has increased 132.4 percent between 2000 and 2002, compared with a 15.2 percent increase across the Kansas City metro area, a 31.3 percent increase in Kansas, and 6.9 percent in the United States during the same time period. Similarly, between 2000 and 2003, poverty among seniors rose 41 percent in Johnson County and poverty overall increased 84.8 percent in Johnson County.

Awareness of services available is a significant issue, according to the Health Partnership Clinic, a nonprofit organization that provides health services to Johnson County's low-income residents and a member of CHAP. According to the Clinic, "being unaware of the Partnership's existence is the most frequently cited stumbling block for access to care." Clinic personnel explain that "potential patients are hard to reach because they are scattered throughout the county" and that new patients commonly comment that they wished they had heard of the Clinic earlier.

In addition to the rising poverty rates, the overall population rates are also escalating. Johnson County is the fastest growing county in the Kansas City metro area, and Johnson County's population has experienced the largest spikes in the number of residents over 65 and those under 18, two groups requiring extensive healthcare services.

Secondly, according to the June 2003 United Community Services report, *Navigating the Future: a Community Action Plan Focused on Human Services in Johnson County*, one of the key issues identified as impacting the human service delivery system in Johnson County is inadequate communication among healthcare organizations. According to the report, "lack of communication within and between organizations is a barrier to the success of human services... Organizations need effective mechanisms for communication and coordination to better serve today's consumer needs. Understanding what services are available and how to access those services can help link consumers with appropriate resources, within the county and across the metropolitan area."

Finally, the scope of the current database of health services has grown, and an improved, user-friendly resource with a content management system and enhanced end-user interface is needed. Originally, the database of community health services was proposed by and designed to serve the health services personnel involved in the Community Health Assessment Process (CHAP). Although the database has been maintained for three years and was well received by the community of health services personnel, recent meetings of both the CHAP Steering Committee and the JoCoHealth.net partnership have identified a number of opportunities for improvements in the database. These improvements include additional printing options, enhanced search capabilities, a content maintenance module to quickly add or edit community resource information and services, expanded content, and a more user-friendly interface. However, due to the construction and limited goals of the initial system, the current database can not be adapted to accommodate the necessary improvements.

## 5. Project Objectives

***Project Goal: To improve access to quality health resources and services in Johnson County and help other libraries provide similar services to their communities.***

In order to achieve the project goal, the following three objectives have been identified:

**Objective 1: Create a public database of community health resources and services that includes: 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.**

**Rationale and pertinent work:** Through a collaboration which led to the creation of JoCoHealth.net, Johnson County Library, Public Health, Mental Health, and Community Health Assessment Process (CHAP) worked together to create the current CHAP database. The Web-based database enables underinsured or uninsured Johnson County residents to locate both services and providers in matters of health concerns. The database also has the potential to provide a great service to those who serve the underinsured and uninsured of Johnson County. The end-user interface allows residents to browse the entire listing of providers, or they may customize the results by limiting the search through age, sex, and desired health service variables. The services listed and indexed in the database include categories such as: prenatal, chronic disability, dental, immunizations, mental health, and physical exams. While the database is currently used by local health services personnel, a number of enhancements would increase the database's effectiveness and usefulness. Three of the main shortcomings of the current system include: 1. The current system does not include a managed data entry system to allow multiple users access to add and/or edit data according to user permissions, 2. The current system was not built to allow content to be added or edited easily, and 3. The current system has a limited search and display interface without subject headings, keyword searching, or multiple display option capabilities.

Because the database was primarily designed for CHAP and for use by providers, it was not anticipated that multiple users would need access to add or edit the data, but instead a single access data editing system was created. Furthermore, because of the limited scope of the database, it was assumed that most of the health organizations serving the underinsured or uninsured and the service categories needed by the target population were already listed. Therefore, it would not be necessary to add, edit, or delete a number of service organizations or service categories on a regular basis. As the number of uninsured and underinsured residents has grown, as service organizations have changed, and as service categories have expanded, it has become obvious that JoCoHealth.net needs a more flexible maintenance system that allows multiple administrative users and an interface that allows organizational information and service categories to be added, edited, or deleted.

At meetings of JoCoHealth.net and CHAP, a number of elements relating to database content or functionality have been identified as necessary enhancements if the database is to continue to grow as an important community resource. Table 2 details the content options and functionality of the CHAP database and the content options and functionality of the proposed JoCoHealth.net Community Resource Database.



Unfortunately, the lack of flexibility that inhibits the content management applies to the system architecture and as well, and these necessary enhancements are not feasible in the current system. Building a new system, based on the lessons learned while designing, implementing, and maintaining the CHAP database has been deemed the best course of action.

**Table 2. Enhanced content and functionality through the proposed database**

<b>Content or functionality identified by partners as necessary or helpful for residents or providers</b>	<b>Available in Current CHAP Database</b>	<b>Available in Proposed Community Resource Database</b>
Web-based end-user interface	X	X
Customizable by age of resident	X	X
Customizable by sex of resident	X	X
Customizable by citizen status		X
Customizable by preferred language		X
Customizable by health service desired	X	X
Customizable by locations accessible by public transportation		X
Information per health service organization includes physical address and interactive map, hours of service, Web address, basic categories of services provided, and ages of those served	X	X
Information per health service organization includes description of low-cost health care service options (payment schedules, reduced cost options, etc.)		X
Information per health service organization includes languages spoken at organization and the location's accessibility to public transportation		X
Comprehensive listing of services available to all Johnson County residents		X
Keyword search option		X
Indexed by subject headings		X
Search options to find services by location and location closest to a residents' address		X
Multiple display and print options to provide customized print out of services to residents		X
Web-based interface to add service categories		X
Web-based interface to edit service categories		X
Web-based interface to add health organizations		X
Web-based interface to edit health organizations	X	
Centrally administered managed data entry system to allow multiple users access to add and/or edit data according to user permissions		X

**Objective 2: Expand the content of the database to include information on health resources and services available to all Johnson county residents.**

**Rationale and pertinent work:** Although the CHAP database is helpful, it was never intended to be a comprehensive database of health services and resources available to Johnson County residents, but this is just the type of service Johnson County residents need.

In May of 2004, the County Economic Research Institute announced that Johnson County is in the top 2 percent of the most rapidly growing counties in the nation. The high influx of new residents corresponds with a large number of residents in need of information on local health services and resources. Johnson County also attracts a large number of families, due to the top-rated school districts, relatively low cost of housing, and high quality of life. These new families need health-related services and quality health information, but do not have the advantage of a community infrastructure to quickly connect them to the services and resources that may benefit them. As noted earlier, the Health Partnership Clinic indicates that “being unaware of the Clinic’s existence is the most frequently cited stumbling block for access to care.” However, as a permanent link off the main library’s Web site, the JoCoHealth.net Web page and the proposed Community Resource Database have the potential to reach those residents who visit the library in person or via the Web for services unrelated to health, but who might well benefit from additional information regarding health services available to Johnson Countians.

Not only is the county growing quickly, but the county’s educated and computer literate population makes it an ideal location for increasing access to health information via the Web. The latest U.S. census reported that over 90 percent of Johnson County residents over age 24 had at least a high school diploma and over 40 percent held a bachelor’s degree. Furthermore, the majority of residents have a computer and Internet connections at home. A 2001 survey by the county’s Information Technology Services found that 90 percent of residents have a computer at home, 86 percent of residents have Internet access at home, and almost 70 percent of residents reported that they used the Internet at least daily. Educated, computer-literate residents will be likely to utilize an online database of local health services and resources, and the effort to create and maintain the database will benefit the community as a whole. Additionally, the library serves a vital community role by providing vital Internet access to quality health information to the remaining 14 percent of county residents without Internet in the home.

Expanding the database will not detract from the original CHAP goal of improved access to information regarding health services to the uninsured or underinsured, but rather, the expanded content, redesigned architecture and end-user interfaces, and additional institutional and partnership commitment will only help to enhance the awareness of the resource, the quality of the information, and ease of use.

The development plans of the proposed Community Resource Database are not only influenced through the partnership's experience with the CHAP database, but through the experiences of other regional or state health information databases, such as North Carolina's NC Health Info and University of Missouri Extension's Community Connection system. These two systems, provide two different perspectives of providing information on area health information services. NC Health Info indexes health organizations by health topic or service, but only provides URLs to the organizations' Web pages. This type of database is easy to maintain and less likely to provide erroneous or outdated content, since the only agency-specific information is the Web address. However, it does not provide community members direct access to contact information or other organizational data via the online database, and by only providing an index of the service topics, the database results are not customizable by individual characteristics and needs that affect healthcare decisions, such as age, sex, and income-level.

On the other hand, Missouri's Community Connection system also indexes health organizations by services provided, but provides far more organization information. Missouri's Community Connection provides a great deal of information per organization, but compiling and maintaining a large number of data fields takes a great deal of time. Furthermore, in the Missouri case, information per field is commonly unavailable, such as in the expanded "description of the services provided," or is time-sensitive and difficult to maintain, such as information on service fees.

To try to achieve a best-of-both worlds approach, the JoCoHealth.net database will identify and maintain basic information per health organization, but will avoid trying to maintain extensive service explanations or extremely time-sensitive data. Organizational information compiled and maintained will include contact information, location, and basic service details (please see Table 2 on page 14 for a listing of proposed data fields).

**Objective 3: Help other libraries provide Web-based information on health resources and services in their communities.**

**Rationale and pertinent work:** Even though the Johnson County Library is well-supported by the community, like all libraries, the organization works diligently to provide first-class service with an economy-class budget. In order to efficiently manage public funds, all libraries must cooperate and share information, expertise, and services whenever possible. An example of this effort is the library's Web content management system which was designed to be shared with other libraries and non-profits and enhanced through a community of programmers through open source code. If libraries are to continue to be vital resources to their communities, they must continue to be vital resources to each other.

By sharing the resulting project code and associated project documentation of the proposed system, the Johnson County Library will help other libraries create regional databases of health resources and services, thereby sharing Johnson County resources with the rest of the state and others in the health information community.

## **6. Methodology**

A detailed implementation schedule, highlighting specific tasks to be performed and project personnel directly responsible is included in Table 3 on page 18.

**Table 3. Activities relating to methodologies will be completed over a course of 18 months.**

Activity	Person Responsible	2004			2005									2006					
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
<b>Ob 1: Methodology #1:</b> Utilizing the prototyping model, develop database and Web interface.																			
1. Work with JoCoHealth.net partners to complete initial analysis of desired database functionality and non-technical specifications for content management and end-user interface.	Erica Reynolds	■																	
2. Finalize contract to complete the programming.	Atabong Fombon																		
3. Purchase the server hardware and associated software.	Monique Sendze	■																	
4. Complete technical requirements and specifications.	Atabong Fombon	■																	
5. Analyze, Design, Code, and Test the software using the prototyping model.	Atabong Fombon		■	■	■	■	■	■	■										
6. Finalize technical documentation.	Atabong Fombon and contracted programmer.							■											
7. Complete database documentation (post testing and additional modifications)	Atabong Fombon															■			
<b>Ob 1: Methodology #2:</b> Develop and implement information design plan.																			
1. Design graphics and layout.	Atabong Fombon, Erica Reynolds		■	■	■	■													
2. Working with JoCoHealth.net partners, evaluate graphics and layout and respond to any concerns.	Atabong Fombon, Erica Reynolds						■												
3. Finalize and complete the layout and graphics.	Atabong Fombon, Erica Reynolds							■	■										
<b>Ob 1: Methodology #3:</b> Complete usability tests.																			
1. Draft usability test questions for content management system and develop Access database to track usability test results.	Erica Reynolds							■	■	■									
2. Draft usability test questions for end-user interface and develop Access database to track usability test results.	Erica Reynolds							■	■	■									
3. Launch beta test version of content management and end-user interface.	Atabong Fombon								■	■									
4. Enter practice data and finalize usability study documentation.	Erica Reynolds, Sarah Handgraaf								■	■									
5. Complete phase 1 usability study of content management system.	Erica Reynolds, Sarah Handgraaf								■	■	■								
6. Complete phase 1 usability study of end-user interface.	Erica Reynolds, Sarah Handgraaf								■	■	■								
7. Adjust programming as functionality or design issues are identified in either content management system or end-user interface usability studies.	Atabong Fombon									■	■	■							
8. Complete final usability study of content management system and report back to programmers and JoCoHealth.net.	Erica Reynolds, Sarah Handgraaf										■	■							
9. Complete final usability study of end user-interface system and report back to programmers and JoCoHealth.net.	Erica Reynolds, Sarah Handgraaf											■	■						
10. Adjust programming as final functionality issues are identified in the end-user interface usability studies.	Atabong Fombon												■	■					
<b>Ob 1: Methodology #4:</b> Initiate database implementation.																			
1. Work with JCL creative services to develop promotional materials.	Erica Reynolds										■	■	■						
2. Develop training materials for the content management system.	Erica Reynolds												■	■	■	■	■		
3. Train library staff on content management system and begin entering community health information data.	Erica Reynolds												■	■	■	■	■		
4. Develop training materials for the end-user interface.	Erica Reynolds													■	■	■	■		
5. Demonstrate the end-user interface and patron training materials to library staff and JoCoHealth.net partners.	Erica Reynolds														■	■	■		
6. Go-live with the public access interface. Test and fix any identified problems.	Atabong Fombon, Erica Reynolds															■	■		
7. Publicize the database and provide patron training. Train additional community partners on content management system as needed.	Erica Reynolds																■	■	
<b>Ob 2: Methodology #1:</b> Identify, coordinate, and enter information.																			
1. Working with JoCoHealth.net partners, identify community health services and resource data.	Erica Reynolds			■															
2. Develop data formatting standards and content collection procedures.	Erica Reynolds				■	■	■												
3. Collect community data, assess process for opportunities for improvement, and draft content maintenance procedures.	Erica Reynolds, Sarah Handgraaf					■	■	■	■	■	■	■	■	■	■	■	■		
4. Enter community data.	Erica Reynolds															■	■	■	
5. Complete content management procedures, including a schedule for maintenance and quality checks.	Erica Reynolds																■	■	■
<b>Ob 3: Methodology #1:</b> Share the database code and project documentation.																			
1. Provide database code and documentation in a format accessible to other organizations.	Atabong Fombon																		■
2. Provide content administration and maintenance procedures; end-user documentation; usability studies, and other project documentation in a format accessible to other organizations.	Erica Reynolds																		■
<b>Evaluation</b>																			
1. Analyze Web statistics and conduct and analyze satisfaction surveys.	Erica Reynolds																		■
2. Conduct focus groups of JoCoHealth.net partner organization front-line personnel.	Tim Rogers																		■

*Objective 1: Create a public database of community health resources and services that includes: 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.*

**Ob 1: Methodology 1. Utilizing the prototyping model, develop the database and Web interface using Microsoft .NET programming language and provide database documentation.**

The software will be developed utilizing a prototyping model. Unlike the classic life cycle model, also called the linear sequential model or waterfall method, in which each step of the development is completed before the next step begins and not a line of code is written until the software requirements analysis is finalized, the prototyping model is cyclical, and involves constant interaction between the customer and the developer. This is the most popular development model in the contemporary information technology industry. Most of the successful software products have been developed using this model. In this stage of the project, the Johnson County Library (JCL) will act as the customer, and the developer will be a contracted programmer for hire. In this model, once the initial requirement analysis is done and the prototype is drafted, the development process gets started.

Once the prototype is created to initial specifications, the programmer will give the prototype to JCL for evaluation. **Atabong Fombon, JCL Technical Development Manager**, will be responsible for serving as the JCL representative, testing the package and proving his feedback to the developer who will refine the product according to the exact specifications.

After a finite number of iterations, the final software package is given to the customer. In this methodology, the software is evolved as a result of periodic shuttling of information between the customer and developer. Using the prototyping model will ensure the proposed Community Resource Database and the associated Web interface fit the needs of the JoCoHealth.net partners and greater Johnson County community.

**Ob. 1: Methodology 2. Develop and implement an information design plan for content management and end-user interface.**

While the software is being designed by the contracted programmer, the actual look and feel of the content management and end-user interface will need to be planned, designed, and formatted. The Technical Development Manager will work with **Erica Reynolds, Web Content Manager**, to develop and implement an effective information design scheme, with particular attention to Web

accessibility issues, ease of use, and optimal functionality. This process will begin shortly after the proposed project starts, and the initial design phase will be completed in early 2005. Once the initial design phase is complete, JoCoHealth.net partners will evaluate the graphics and layout during a regularly scheduled partnership meeting, and discuss concerns and additional suggestions. The graphics and Web interface layout will be finalized approximately six months after the project start date, coordinated with the contracted software development end-date. The completion of these two activities set the stage for the beta-test launch of the content management and end-user interface in late spring 2005.

**Ob. 1: Methodology 3. Complete usability tests of the content management and end-user interface functionality and design.**

In order to ensure a user-friendly and fully functional system, **Sarah Handgraaf, Web Content Developer**, will assist the Web Content Manger to draft and implement separate usability studies of the content management and end-user interfaces utilizing methodology developed by international usability expert, Jakob Nielsen. Separate Access databases will be created in order to track the results of the study and facilitate quick reports. A template for this database is already in use, as the Web Content Team continues to conduct usability studies of the library's various Web sites and applications.

Consistent with Dr. Nielsen's recommendations, each usability study during the proposed project will consist of four to five volunteers, and will focus on the essential tasks and functionality of each interface. It is expected that after the extensive testing involved in the prototyping model of software development, and internal staff evaluations and testing of the software, approximately two usability studies of the content management system will be needed, and possibly three usability studies of the end-user interface will be necessary. The end-user interface is more complicated and will likely require more attention than the content management interface. Because of the possible need for additional end-user interface tests, and because it is good practice to run a usability study after each "final" adjustment to ensure existing functionality is not adversely affected by remedies to problems identified in the testing, it is expected that the content management system will be completed and ready for data entry by October 2005, and the end-user interface will be completed in December 2005.

**Ob. 1: Methodology 4. Initiate database implementation through training, data input, promotion, and use.**

As the graphics, formatting, and design of the Web-based interface will be completed by late spring, the project personnel can begin meeting with the Johnson County Library Creative Services department in July of 2005 to develop the promotional materials including a pamphlet, bookmark, and digital promotional materials, such as graphics that can be added to partnership Web sites and other external sites as a link back to the JoCoHealth.net Community Resource Database.

After the final usability tests are completed, and adjustments to the system have subsided, the training materials will be developed for the content management system, library staff will be trained on the system, and entry of the community health information will commence.

Similarly, once the testing and adjustments have concluded for the Web-based end-user interface, training materials will be developed, and the Web Content Team members will demonstrate the end-user interface and patron training materials to library staff and JoCoHealth.net partners.

After the data has been entered, and the partners have evaluated the public-access version of the database, the official “Go-live” will occur in January 2006. The site will be active to the public, but large-scale promotions will not begin until the system is tested in the Internet environment and any additional problems have been remedied. Major promotion of the Community Resource Database, resources such as MedlinePlus, and of JoCoHealth.net in general will begin in February 2006 and continue beyond the end of the proposed funding period. Identified personnel from select JoCoHealth.net partner organizations needing access to edit information in the system will be trained on the content management system, and project personnel will visit community groups to promote the new database and provide demonstrations.

*Objective 2: Expand the content of the database to include information on health resources and services available to all Johnson County residents.*

**Ob. 2: Methodology: Identify, coordinate, and enter information on the health resources and services available to Johnson County residents.**

If funded, project personnel will immediately start working with JoCoHealth.net partners to identify the best strategy for identifying community health services and gathering resource data. All project partners have committed to assisting with this process. Data formatting standards and content collection procedures will be developed prior to the collection of community data. After an



initial batch of community data is collected, project personnel will assess the process for opportunities for improvement, and draft content maintenance procedures.

Once the database and the content management system have been development, the data entry of community information should begin November 2005 and be completed by the end of December 2005. Although the proposed project will develop a system that allows partner organizations to edit data as needed, for the original launch of the program, the majority of the data will be entered by members of the Johnson County Library Web Content Team, under the supervision of Erica Reynolds. Because the library has the staff and institutional commitment to maintain this project, the option to edit or update data will be available to partner organizations, but it will not be necessary for organizations to update their own information electronically or commit personnel to this task. Beyond the initial project period, the team will continue to update data, and create a maintenance and quality check schedule to ensure data is accurate and reliable. The schedule will include a biannual reminder system in which agencies listed within the database will be prompted to verify that information regarding their organizations remain accurate and provide updates to services or contact information. The entry and maintenance of community data will be on-going and stretch beyond the funding period as is necessary for a sustained and up-to-date health information resource. After evaluating the initial collection development and entry process, content management procedures, including a schedule for maintenance and quality checks will be finalized and documented in a report presented to the JoCoHealth.net partners.

*Objective 3: Help other libraries provide Web-based information on health resources and services in their communities.*

**Ob. 3: Methodology: Share the database code and project documentation to allow other libraries to provide a similar service to their communities and improve access to quality health resources and services.**

While a number of libraries would be thrilled to provide their communities with a database of local health services and resources, the programming, planning, development, and testing all demand a great deal of time—particularly when libraries are also working to enhance and maintain other electronic resources. By sharing programming code, associated documentation, and expertise, JCL will help other libraries provide Web-based information on health resources and services. To achieve this, the database code and associated documentation will be stored in a format accessible to other organizations along with the content administration and maintenance procedures, end-user documentation, training materials, usability studies, and other project documentation.

## **7. Evaluation Plan**

Evaluation techniques will be implemented to help refine and improve the database and the JoCoHealth.net Web page and to better understand if the Community Resource Database has helped to improve access to quality health information in Johnson County. On-going evaluation strategies, such as the usability studies, are integrated throughout the project methodologies and action items to ensure progress toward the goal of improving access to quality health resources and services in Johnson County and helping other libraries provide similar services to their communities. Additionally the evaluation plan includes strategies to be conducted after the database is available to the public in order to measure satisfaction with the interface and to guide continued development of the content.

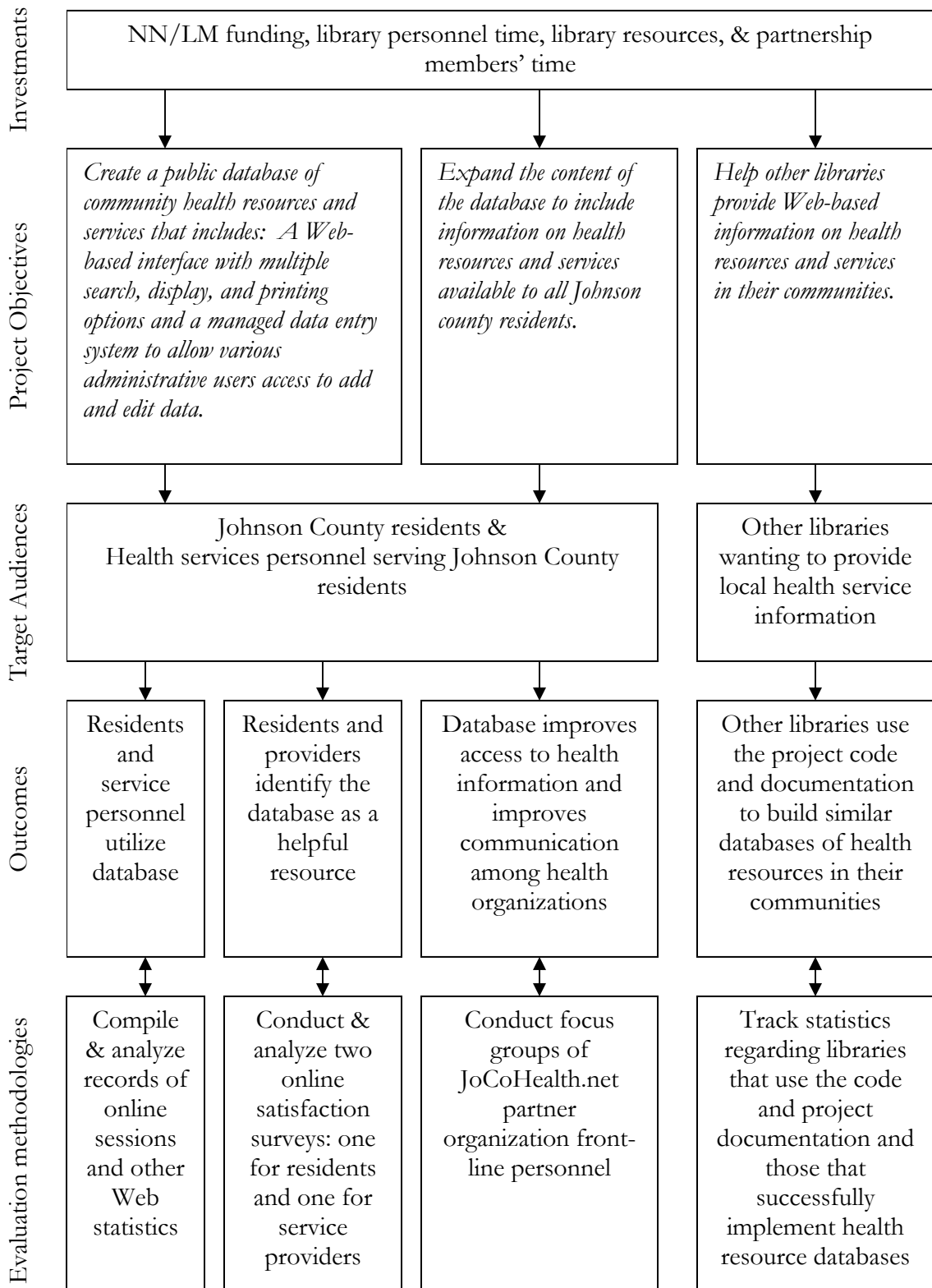
### **Overall evaluation objectives include:**

- 1. To assess the success of the project according to the objectives established.**
- 2. To help guide continued development of content and online health information services via JoCoHealth.net**

Chart 1 on page 24 details the logic model of the project and associated evaluation plan. To measure the number of community members and service providers utilizing the database, records of online sessions and other Web statistics will be compiled and analyzed after the database is released to the public. Statistics will track total sessions and total users (tracked by IP address), and also trends such as heaviest traffic by time, heaviest traffic by day of week, and return users.

Additionally, to measure satisfaction with the interface and to help guide continued content development, two online surveys will be developed: one will be developed for community members and posted on the JoCoHealth.net site. A separate online survey will be developed for health services providers, including the staff of JoCoHealth.net partner organizations, and sent specifically to health service providers. Both surveys will be formatted using Zoomerang, an online survey tool that tracks and graphs results and provides various comparison options, such as cross-tabulation. The online survey tools will be developed to measure satisfaction with the database interface, content, reasons for use, and intentions to use.

**Chart 1. Evaluation methodologies are closely tied to the project objectives and outcomes.**



In order to provide a level of impact analysis and determine if the project has successfully improved access to health information and communication among health organizations, focus groups will be conducted with the front-line personnel of the JoCoHealth.net partner organizations to determine how the database and JoCoHealth.net resources are being utilized and how they could be further enhanced.

Finally, in order to determine if the project has helped other libraries provide similar health information services to their communities, statistics regarding use of the code and project documentation and how many libraries have successfully implemented programs using the JoCoLibrary.net database as a template will be collected. Additional anecdotal evaluation will occur when the project team provides demonstrations of the database to community groups and partner organizations. At the conclusion of the evaluation plan, results will be analyzed and compiled into the final report submitted to NN/LM.

## **8. Publicity/Promotion**

In order to promote the expanded and redesigned database of health community services and increase access to and awareness of the health information available through MedlinePlus, the following actions will be taken by the JoCoHealth.net partnership:

- Promotional materials, including a pamphlet and bookmark, will be designed and printed to promote the JoCoHealth.net Web site, associated database of community resources, and access to quality health information through subscription-based and free resources such as MedlinePlus.
- The pamphlets and bookmarks will be made available to all JoCoHealth.net members to be displayed in their public services areas and distributed during associated community presentations or while participating in community health fairs and events.
- JoCoHealth.net partners will give internal presentations to their respective organizations to ensure all public services staff and health providers were aware of the expanded and redesigned database and could both utilize the resource for their own professional use and refer community members.
- JoCoHealth.net will solicit invitations to community health fairs and established group meetings, and provide community demonstrations of the database of community resources, access to MedlinePlus, and other JoCoHealth.net services.

- JoCoHealth.net will work with CHAP and other organizations to identify community health providers to be contacted directly with information on the database of community resources and be encouraged to request pamphlets to be displayed in their public service areas and schedule a demonstration of the database, MedlinePlus, and other services available through JoCoHealth.net for their organizations.
- Links to JoCoHealth.net and the associated database of community resources will be included on every partner's parent organization Web site.
- The site will be optimized to ensure a high ranking in external search engines for searches of health information or health services in Johnson County or any of the cities within the county.
- Information regarding the availability of source code and associated project documentation will be promoted through professional listservs and at professional meetings to reach the libraries interested in creating similar community health resource databases.

## 9. Personnel

Project personnel are identified below with a narrative summary of qualifications as they relate to the proposed project. All project members have extensive experience working with the target populations through the past work with the JoCoHealth.net partnership. Please note the estimated hours of project work and percentage of total hours work in Table 4 on page 27. Curriculum vitae for project team are included in the appendix, pages A6-A14.

**Tim Rogers, JCL Associate Director of Operations**, will serve as the principal investigator and will be responsible for the overall project oversight. Mr. Rogers has over twelve years of library administration and project management experience, and has been in charge of the library's information technology department since 2000. Under his leadership, the library has completed two major, long-term information technology projects, including the migration of the library's online public access catalog, circulation, and acquisitions systems from DRA to Sirsi and the implementation of print management in all thirteen library locations. Mr. Rogers has an M.L.S. from Indiana University, and served as the director of two different libraries before joining the Johnson County Library.

**Monique Sendze, JCL Information Technology Manager**, will be responsible for directing the design, testing, implementation, operation, and maintenance of the information systems software and hardware. Ms. Sendze has a master's degree in Education from the University of Yaounde, Cameroon, and is currently seeking her second master's degree in Management

Information Technology from the Colorado Technical University, Colorado Springs, CO with an expected graduation date of August 2005. She is experienced in the acquisition of management information systems and software project management, including requirements analysis, design, systems-level integration, and test engineering, and has earned the following certifications: MCSE (Microsoft Certified Systems Engineer), Comptia A+, and Comptia Network+.

**Atabong Fombon, JCL Technical Development Manager**, will be responsible for the programming and implementation of the database and end-user systems, ensuring the content maintenance and end-user interfaces meet the needs of the patrons, partners, and staff, and coordinating the work of the contracted programmer. Mr. Fombon has a B.S. in Software Engineering from the University of Missouri-Kansas City and since joining the Johnson County Library in 2001, he has developed numerous databases for staff and patrons and designed and implemented the library’s Web content management system. He has over five years experience designing, developing, managing and implementing technological solutions.

**Erica Reynolds, JCL Web Content Manager**, will be responsible for the community resource data identification and input, the usability studies, and training patrons and staff on the systems. She will also assist with the development of the database specifications and design of the content management and end-user interfaces. Ms. Reynolds has a master’s degree in English with an emphasis in professional writing from University of Missouri-Kansas City, an M.L.S. from Emporia State University’s School of Library and Information Management, eight years of experience in Web site development and end-user training, and has been employed as both a consumer health and clinical medical librarian.

**Sarah Handgraaf, JCL Web Content Developer**, will be responsible for assisting with the community resource identification and input, implementing the usability studies, and training partners and staff on the system. Ms. Handgraaf has a master’s degree in communication from Pittsburg State University and three years experience in web layout and design. In addition, she has worked with many non-profit organizations to improve their marketing and advertising tools.

**Table 4. Estimated hours of project work and percentage of total hours worked**

<b>Project personnel</b>	<b>Role</b>	<b>Percent effort on project</b>	<b>Number of months on project</b>	<b>Estimated hours of project work</b>
Tim Rogers	Principal Investigator	5%	18	156
Monique Sendez	Information Technology Manager	5%	18	156

<b>Project personnel</b>	<b>Role</b>	<b>Percent effort on project</b>	<b>Number of months on project</b>	<b>Estimated hours of project work</b>
Atabong Fombon	Technical Development Manager	30%	18	936
Erica Reynolds	Web Content Manager	30%	18	936
Sarah Handgraaf	Web Content Developer	30%	18	936

**10. Facilities/Institutional Support**

The library strongly supports its information technology and content development staff, and ensures personnel have the tools, resources, and equipment necessary to build and maintain high-quality Internet applications and deliver exceptional Web-based information services. All project staff are geographically located within the Central Resource Library, and administratively located within the same department. Additionally, letters committing institutional support from the County Librarian and the JoCoHealth.net partners are available in the appendix, pages A2-A5.

There is strong institutional support for this proposal, as it builds on projects and goals to which the library has already committed. In the library’s strategic plan, *Connections: Enriching Lives-Building Communities*, one of the five outcomes supporting the vision of the library is to ensure that “People easily find quality, balanced information personalized to their needs.” Partnering with community organizations to develop locally-relevant, content-rich Web sites is identified as one of the main strategies to be employed in order to achieve that outcome.

The library is dedicated to working with community partners in order to providing reliable, quality health information and developing locally relevant online content and will provide the facilities and resources necessary to support the project during and after the proposed funding period has been completed.

**11. Continuation of Activities After Project Completion**

The Johnson County Library is fully committed to continued development and maintenance of the proposed Community Resource Database and continued work with the JoCoHealth.net partnership. Additionally, as stated in Objective 3, the database code and project documentation will be shared with other libraries in order to improve access to quality health resources and services in other communities.

**12. Other NLM or NN/LM Support**

The Johnson County Library has not received funding from National Library of Medicine, nor does the organization have any proposals pending review or additional proposals being prepared for submission.



## **II. Cost Proposal in response to RFP: Access To Electronic Health Information 2004**

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### **A. Cover Sheet information**

**Lead institution:** Johnson County Library

**Principal Investigator:** Tim Rogers  
Associate Director of Operations  
Johnson County Library  
Box 2901  
Shawnee Mission, KS 66201  
Ph. (913) 495-2459  
Fx. (913) 495-2441  
[rogerst@jocolibrary.org](mailto:rogerst@jocolibrary.org)

**B. Budget Form**

Submitted by: Johnson County Library

Date Submitted: June 4, 2004

Period Covered: October 1, 2004-March 31, 2006

<b>EXPENDITURE CATEGORY</b>	<b>AMOUNT</b>
Personnel*	\$0
Equipment	\$5,000
Supplies	\$0
Communications	\$0
Reproduction	\$2,000
Other Costs**	\$33,000
<b>TOTAL</b>	<b>\$40,000</b>

\*Personnel costs totaling \$82,846 will be funded by the Johnson County Library, and are committed to the project as in-kind contributions.

\*\*Other Costs include software licenses and contracted programming. Details provided in the budget narrative.

## **C. Budget Narrative**

### **1. Personnel**

All personnel costs are to be committed in-kind by the Johnson County Library. Salaries and benefits (calculated at 20% of salaries) for the associated personnel, with the percent of effort listed below calculates to \$82,846.

#### **Tim Rogers, JCL Associate Director of Operations, 5% effort over 18 months**

Principal investigator and responsible for the overall project oversight.

#### **Monique Sendze, JCL Information Technology Manager, 5% effort over 18 months**

Responsible for directing the design, testing, implementation, operation, and maintenance of the information systems software and hardware.

#### **Atabong Fombon, JCL Technical Development Manager, 30% effort over 18 months**

Responsible for the programming and implementation of the database and end-user systems, ensuring the content maintenance and end-user interfaces meet the needs of the patrons, partners, and staff, and coordinating the work of the contracted programmer.

#### **Erica Reynolds, JCL Web Content Manager, 30% effort over 18 months**

Responsible for the community resource data identification and input, the usability studies, and training patrons and staff on system. She will also assist with the development of the database specifications and design of the content management and end-user interfaces.

#### **Sarah Handgraaf, JCL Web Content Developer, 30% effort over 18 months**

Responsible for assisting with the community resource identification and input, implementing the usability studies, and training partners and staff on the system.

### **2. Equipment \$5,000**

SQL Database Server hardware: \$5,000

The database server will serve to store the data in a manageable format. The server has the capacity to handle around 40Gb of information, but the proposed project is expected to only utilize about 1Gb of the space, leaving plenty of room for future expansion. However, the cost of space is not the defining issue. The cost of the server is due to the processor which ensures patrons are able to access the information quickly and effectively. The server will contain two 3 GHz processors.

### **3. Communications**

No communication charges are associated with the proposed project. Johnson County Library staff have ready access to phone, postage and other communication services, provided through the library.

### **4. Reproduction \$2,000**

The printing of high-quality, 4-color pamphlets and bookmarks will help promote the JoCoHealth.net Community Resource Database and MedlinePlus. The marketing materials will be designed by the Johnson County Library's Creative Services department. The \$2,000 requested costs will purchase approximately 10,000 tri-fold, 8 1/2" x 11" brochures and 10,000 bookmarks.

**5. Other Costs \$33,000**

**Software and Licenses \$7,000**

Windows 2000 Server License - \$250

The Windows 2000 Server License provides the operating system for the server.

Microsoft SQL Server License (For dual processor) - \$5, 000

The SQL Server License provides the database software to store the community resource information.

Backup License - \$1750

The Backup License provides the software to back up the community resource data, to prevent loss of data in case of a server failure or other technological problem.

**Contracted fee for services: Programming, \$26,000**

Programming is anticipated to be contracted at @ \$25 per hour for 6 months (26 weeks \* 1000 per week). The contracted programming constitutes a fee-based service and will include implementing the database specifications and Web interface using Microsoft .NET programming language. As required by the County, the library will submit an RFP for the work. This will be completed by July 15, 2004, so that bids can be obtained and a contract completed in time to start work by the November 1, 2004 programming start-date, if the proposed project is funded.

**Total project costs: \$122,846**

**Total in-kind contributions: \$82,846**

**Total requested from NN/LM: \$40,000**

## Appendix

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Letters of commitment from lead and partner institutions.....A2-A5

### Curriculum vitae for proposed personnel

Tim Rogers, PI..... A-6

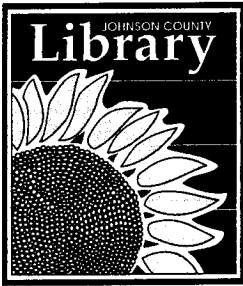
Monique Sendze..... A-8

Atabong Fombon .....A-10

Erica Reynolds .....A-12

Sarah Handgraaf .....A-14

Area Map.....A-15



Johnson County Library  
P.O. Box 2933  
Shawnee Mission, KS  
66201-1333

Administration/Switchboard:  
(913) 495-2400

Fax:  
(913) 495-2460

May 21, 2004

Claire Hamasu, Associate Director  
NN/LM MidContinental Region  
Spencer S. Eccles Health Sciences Library  
University of Utah  
10 North 1900 East Bldg 589  
Salt Lake City, UT 84112-5890

Re: NN/LM RFP: Access to Electronic Health Information

Dear Ms. Hamasu,

As the County Librarian of Johnson County Library, I want to express the library's full commitment to the JoCoHealth.net partnership and to the proposed Community Resource Database project.

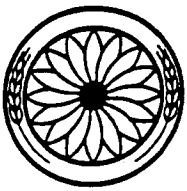
Web-based information services are particularly well-suited to Johnson County, as the majority of the population is highly educated and internet savvy. A 2001 county survey conducted by the ETC Institute found that 90 percent of respondents had a computer at home, 86 percent indicated they had Internet access at home, and 50 percent said they would be likely to use the county's Web site to find information about health services. Additionally, due to Johnson County's increasing poverty rate, a searchable database of health resources that includes descriptions of services available to the underinsured would greatly benefit the public and nonprofit agencies serving the community, as well as benefit all residents of Johnson County.

I am confident that the library's past success in collaborating with partner organizations and developing technological solutions to address the needs of the community will benefit the project. In support of the Community Resource Database proposal, the library will commit \$82,846 through in-kind contributions.

We look forward to continued collaboration with the partners of JoCoHealth.net. If I can provide additional information, please do not hesitate to contact me.

Sincerely,

Mona Carmack  
County Librarian



# JOHNSON COUNTY HEALTH DEPARTMENT

dedicated to the prevention of disease and promotion of wellness for our community

May 21, 2004

Claire Hamasu, Associate Director  
NN/LM MidContinental Region  
Spencer S. Eccles Health Sciences Library  
University of Utah  
10 North 1900 East Bldg 589  
Salt Lake City, UT 84112-5890

Dear Ms. Hamasu,

On behalf of the Johnson County Public Health Department and the Community Health Assessment Process, I am pleased to express our commitment to the JoCoHealth.net Community Resource Database project, submitted in response to the NN/LM RFP: Access to Electronic Health Information.

As county agencies, the Public Health Department and the Johnson County Library have collaborated on a number of successful projects, including the development of the Community Health Assessment Process (CHAP) database, a publicly accessible Web-based database of services and resources for Johnson County's uninsured and underinsured residents. As the forerunner of the proposed Community Resource Database, the CHAP database was developed in 2001 and remains a valuable tool for health providers and an important resource for residents in need of low-cost health services.

This proposed database would build on the lessons learned in creating and maintaining the CHAP database, and provide expanded content, enhanced search options, and an improved user interface to better serve not only the county's uninsured and underinsured residents, but to improve access to local health resources for all county citizens.

Our agency fully supports this proposal and will participate fully in the collection, coordination, and maintenance of information on health services and resources available to the residents of Johnson County.

If you have any questions or need additional information, please do not hesitate to contact me at 913-477-8364.

Sincerely,

*Barbara D. Mitchell*

Barbara D. Mitchell  
Division Director, Health Education  
Johnson County Health Department

A-3

Health at the Highest Level

11875 South Sunset • Suite 300 • Olathe, Kansas 66061 • (913) 894-2525 • fax (913) 477-8048



6000 Lamar Ave.  
Suite 130  
Mission, KS 66202  
(913) 831-2550  
Fax: (913) 826-1608

OTHER SERVICE  
LOCATIONS

1125 W. Spruce St.  
Olathe, KS 66061  
(913) 782-2100  
Fax: (913) 782-1186

Community Support  
Services  
6440 Nieman Rd.  
Shawnee, KS 66203  
(913) 962-9955  
Fax: (913) 962-7843

Regional Prevention Center  
1125 W. Spruce St.  
Olathe, KS 66061  
(913) 715-7880  
Fax: (913) 715-7881

Adolescent Center  
for Treatment  
301 N. Monroe St.  
Olathe, KS 66061  
(913) 782-0283  
Fax: (913) 782-0609

Adult Detoxification  
2205 W. 36 Ave.  
Kansas City, KS 66103  
(913) 897-6101  
Fax: (913) 897-6802

After Hours  
Emergency Service  
(913) 384-3535  
Fax: (913) 826-1617

May 21, 2004

Claire Hamasu, Associate Director  
NN/LM MidContinental Region  
Spencer S. Eccles Health Sciences Library  
University of Utah  
10 North 1900 East Bldg 589  
Salt Lake City, UT 84112-5890

Dear Ms. Hamasu,

As the Executive Director of the Johnson County Mental Health Center, and on behalf of the Regional Prevention Center, I am delighted to express our support of the JoCoHealth.net Community Resource Database proposal, submitted in response to the NN/LM RFP: Access to Electronic Health Information.

The Mental Health Center and Regional Prevention Center, along with other JoCoHealth.net partners, are part of a network of local public agencies and institutions charged with sustaining a safe and healthy community. The safety net provided in serving those who frequently have no place else to turn for mental health services is one of the most important ways we seek to meet that responsibility.

The need for mental health services in Johnson County is escalating. For example, in 2001 the number of people with severe and persistent mental illness receiving help jumped 9 percent from the previous year. However, as the population of the county is expected to expand by at least 20 percent by 2020 and the demographic of the county grows increasingly diverse, the need for health services is not expected to subside.

This proposed Community Resource Database would improve the area's access to quality health-related services. Furthermore, such a database will improve communication across sectors of health service organizations and serve as a resource to health providers, particularly as they work to focus on community education and preventative services.

Our agency fully supports this proposal and will participate fully in the collection, coordination, and maintenance of information on health services and resources available to the residents of Johnson County. If I can provide additional information, please do not hesitate to contact me.

Sincerely,

David Wiebe  
Executive Director



May 21, 2004

Claire Hamasu, Associate Director  
NN/LM, MidContinental Region  
Spencer Eccles Health Sciences Library  
University of Utah  
10 North 1900 East Bldg 589  
Salt Lake City, UT 84112-5890

Dear Ms. Hamasu,

Saint Luke's Health System, one of the founding partners of JoCoHealth.net, is pleased to support the Community Resource Database proposal, submitted in response to the NN/LM RFP: Access to Electronic Health Information.

Saint Luke's, a national leader in health care and 2003 recipient of the Malcolm Baldrige National Quality Award, has served the Kansas City metropolitan area for more than 120 years. For the last ten years, Johnson County has had the highest rate of growth in the metro area, with large gains in both the under-18 and over-65 age segments. To accommodate the county's significant health care needs, Saint Luke's opened its first hospital in Johnson County, Saint Luke's South, in 1998.

To help meet the needs of the growing Johnson County population, Saint Luke's has committed to the JoCoHealth.net Community Resource Database project and will participate by providing and helping to maintain information on local health services and resources.

We look forward to building upon the success of the JoCoHealth.net partnership and improving access to quality health information and services. If I can provide additional information, please do not hesitate to contact me.

Sincerely,



Karen Wiederaenders, M.L.S.  
Director of Library Services  
Saint Luke's Hospital of Kansas City

## **Tim Rogers, Associate Director for Operations**

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Johnson County Library  
P.O. Box 2901, Shawnee Mission, KS 66201-1301  
[rogerst@jocolibrary.org](mailto:rogerst@jocolibrary.org) Tim Rogers  
Ph. (913) 495-2459

### **EXPERIENCE**

2003-present

Associate Director for Operations, Johnson County Library

2000-2003

Associate Director for Technology and Bibliographic Services, Johnson County Library,

1997-2000

Technical Services Manager, Johnson County Library

1994-1997

Library Administrator, Coffey County Library

1992-1994

Reference/Bibliographic Instruction Librarian, Mohawk Valley Community College

1992-1994

Library Director, Oneida Library

1991-1992

Reference Librarian, National Baseball Hall of Fame Library

### **EDUCATION**

1991 M.L.S., Indiana University

1989 B.A., Linguistics, State University of New York at Buffalo

### **PROFESSIONAL ACTIVITIES**

#### Seminars, Lectures, and Workshops

- Speaker (Panel), *Future of Digital Collections*, Tri-Conference, Wichita, KS 2002.
- Speaker (Panel) *Cataloging and Technical Services Roundtable Discussion*, Tri-Conference, Wichita, KS 2002.
- Facilitator, *Strategic Planning for State QPA*, Piper School District, Piper, KS, 2002.
- Facilitator, *FIRO-B for Teams*, Johnson County Library, 2002.
- Speaker, *Discussion Group for Collection Development Issues*, ALA Annual, Atlanta, 2002.
- Trainer, *Skills Training to Enhance Performance for Johnson County Government*, Olathe, KS, 1999-2001.
- Speaker, *Myers-Briggs Type Indicator*, Staff Day for Hutchinson Public Library, Hutchinson, KS, 2000
- Speaker, *Myers-Briggs Type Indicator*, Pre-conference for Tri-Conference, Salina, KS, 2000.
- Speaker, *Hooking the Big One – Collection Development Planning*, PLA Conference, Charlotte, NC, 2000.

- Speaker, *Hooking the Big One – Collection Development Planning*, Tri-Conference, 1999
- Facilitator, *Idea Generation for Planning for the Kansas Library Association*, Lawrence, KS, 1998.
- Speaker, *Legislative Agenda Update*, Tri-conference, 1995-1999

Service to Professional Associations

- American Library Association, 1990-to date.
- *Association for Library Collection and Technical Services*, 1997-to date.
- Administration of Collection Development Committee, 1999-to date.
- *Library Administration and Management Association*, 1994-to date.
- *Library Information Technology Association*, 2000-to date.
- Legislative and Regulation Committee, 2002-to date.
- *Public Library Association*, 1993-to date.
- Library Services Cluster, Community Information Services, 2002-to date.
- Kansas Library Association, 1994-to date
- *Legislative Committee*
- Chair/Co-Chair, 1995-1999
- *Kansas Library Month Committee*
- New York Library Association, 1991-1996
- Indiana Library Association, 1990-1991

## **Monique Sendze, Information Technology Manager**

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Johnson County Library  
P.O. Box 2901, Shawnee Mission, KS 66201-1301  
[Sendzem@jocolibrary.org](mailto:Sendzem@jocolibrary.org)  
Ph. (913) 495-7519

### **QUALIFICATIONS**

Effective Information Systems Manager with five years of proven leadership experience. Demonstrated results in the management of high-dollar projects in multi-platform environments. Comprehensive experience in the acquisition of management information systems and software project management, including requirements analysis, design, systems-level integration, and test engineering. Major accomplishments include:

- Used information Technology to enable process improvement and increase efficiency
- Customized the help desk software to allow users to visually track project priorities, increasing internal customer satisfaction.
- Managed the development of a new web-based time entry management system that allowed staff to accurately record their time and have it approved by their supervisor for quicker processing by HR payroll staff.
- Re-engineered the Information Technology Support Desk services through an implementation of Service level agreements, improving communication and providing a structure for a previously informal process.
- Managed the development of a web-based Incident report management system for use in the Library.
- Implemented quality software evaluation processes following the Software Engineering Institute's Capability Maturity Model.
- Completed a successful rollout of a reservation and print recovery system for all 12 library locations.
- Implemented a tape library backup system for all servers in the JCL network.
- Implemented Active Directory on both of the Library's Domains.
- Major role in the Technical team for the migration to a new ILS system.
- Implemented a migration of Fundraising Database software for use by the Foundation and Friends of the Library from Raiser's Edge to Donor Perfect.
- Implemented a staff photo identification Database System

### **EXPERIENCE**

2004-present

Information Technology Manager, Johnson County Library

Manage the operations of all computer and data communications systems for the Johnson Library. Direct the design, testing, implementation, operation, and maintenance of information systems software. Develop long-range operating plans and departmental policies. Manage all aspects of automation within the department, including mobile data computer components, and remote access security. Manage the human resources of the Library's Information Technology Department. Provide and oversee the information technology support desk services to assist all users with software, hardware, and training issues. Manage the maintenance and enhancement of the library's computer network and desktop environment Provide database and web-based services. Coordinate,

plan and implement department activities and project work. Communicate with staff and public users about the Library's technology.

2001-2004

Technical Customer Support Coordinator, Johnson County Library

Manage technical customer support. Perform systems analysis based on user requests and service metrics, and design solutions that meet specified technical and functional requirements. Develop, implement, and analyze security standards for individual PC workstations and associated devices. Provide IT project management. Participate in the development and implementation of library-wide short and long-range workstation installation and replacement strategies. Provide leadership and departmental oversight and participate in professional development. Create project documentation including project plans, feasibility studies, decision matrixes, and project assessment and impact reports, as per IT policies and procedures, and as is appropriate for project. Provide system-wide technology support. Provide budget preparation assistance and leadership with focus on data communications and local and wide area network systems. Establish and perform departmental service quality reviews using service and equipment standards and adopted industry best practices. Coordinate and provide technical direction, advanced support, and training to appropriate external and internal staff. Plan for and oversee the implementation of all PC and PC-related hardware and software, servers and server-related hardware and software. Participate in the development of policies and procedures for use of network facilities and then ensure implementation

2001-1999

IT Analyst, Johnson County Library

Provide technical support to internal and external customers through Support Desk. Respond to all phone, e-mail, and walk-in trouble reports made by customers using the Support Desk policy and procedures. Install PCs and related equipment and software at library locations as assigned by supervisor. Participate in project scheduling and management by actively and appropriately communicating and problem-solving with library staff.

Complete new hardware and software configurations and report results as specified by departmental policy and procedures. Provide an informal instruction / training for customers regarding new and upgraded equipment. Submit written documentation for all new methods and procedures as assigned by supervisor.

## **EDUCATION**

(2005) M.S., Management Information Technology, Colorado Technical University

1993 M.A., Education, University of Yaounde, Cameroon

1990 B.A., French and English, University of Yaounde, Cameroon

## **CERTIFICATIONS**

MCSE (Microsoft Certified Systems Engineer)

Comptia A+

Comptia Network+

## **Atabong Fombon, Technical Development Manager**

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Johnson County Library  
P.O. Box 2901, Shawnee Mission, KS 66201-1301  
[fombona@jocolibrary.org](mailto:fombona@jocolibrary.org)  
Ph. (913) 495-9146

### **QUALIFICATIONS**

Four years experience designing, developing, managing and implementing technology in an enterprise environment.

### **EXPERIENCE**

2001-present

Technical Development Manager, Johnson County Library

Initial duties were to develop a new web content management system to support 30+ staff members creating and publishing content to the web. It needed to be robust, fast, stable and easy to use. Also lead the project to migrate website content and 30+ staff members to the web content management system. Position evolved and acquired more responsibilities:

- Develop and maintain a group of sites to help achieve the Library's goal of developing and providing more community oriented services.
- Provide technical expertise in implementing technology based projects, such as migrating to a new Integrated Library System.
- Maintain the web interface to the Integrated Library System.
- Active backup network administrator for the Library's Network infrastructure (Windows Active Directory Domain).
- Primary Graphic designer for the Library's Web Page and all other Community and Collaborative Web Projects.

2000-2001

Web Administrator, Mpower Communications.

Developed and maintained several production web servers, running Un\*x/NT. Created and scheduled planned web server upgrades, while minimizing customer downtime. Monitored drive usage, and illegal content through perl scripts. Designed a solution to provide backup for all Web Servers in KC. Migrated the backup system from a production web server to a non-production web server while minimizing customer down time. Developed Administration scripts to automate web administration.

- Perl scripts for Un\*x, create/delete users, virtual web servers and directories all from a web interface.
- ASP+ADSI scripts for NT, provide the same support as the Unix to provide for user and web server administration.
- Provide a common interface layer that masked the system it was implemented on (this utilized such resources as an SQL 2000 database).

Developed tools to migrate NT based web Servers from multiple IP hosting, to a single IP virtual server solution.

- Single click migration interface for NT administration. Useful when a customer is hosted on a server that does not support cold fusion, but now requests for Cold fusion support.

Monitored overall server security, but especially monitor client security.

- Frequently parsed client scripts for poor coding standards, and open security holes.

Provided advanced/final technical support for customer issues.

- Functionality Requests (installing server modifications)
- Blame resolution (i.e. I can't do it so it must be your fault)
- Code solutions (i.e. How do I use server side includes?)
- Debugged code(Java, PERL, vbScript, JScript, HTML)

1999-2000

Ecommerce Operator, SLMSoft.com

Monitor ATM functionality and report its respective Bank, any malfunctions or errors. Member of a 24/7 ATM monitoring team. Provided E-commerce support for Internet banking. Developed scripts to further automate the ecommerce administration. Developed PERL to automate report generation.

## **EDUCATION**

1999 Bachelor's of Science, Software Engineering  
University of Missouri-Kansas City, Kansas City, MO.

## **Erica Reynolds, Web Content Manager**

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Johnson County Library  
P.O. Box 2901, Shawnee Mission, KS 66201-1301  
[reynoldse@jocolibrary.org](mailto:reynoldse@jocolibrary.org)  
Ph. (913) 495-2429

### **QUALIFICATIONS**

Eight years of experience with library and academic Web site design, implementation, maintenance, and content management. Web sites developed and maintained include:

- Content Management of the Johnson County Library site and partnership sites, Johnson County Library
- Research Web site, University of Missouri-Kansas City (UMKC)
- School of Graduate Studies Web site, UMKC
- Sponsored Programs & Research Support Web site, UMKC
- Graduate Faculties & Research Web site, UMKC
- PreAward Services Web site, UMKC
- Health Sciences Library Web site, UMKC
- Primary Care, VA Medical Center Intranet site
- Learning Center, VA Medical Center Intranet site
- Consumer Health Library, VA Medical Center Intranet site

### **EXPERIENCE**

2003-present

Web Content Manager, Johnson County Library

Responsible for the oversight of development and enhancement of the Library's Web sites, intranets, and extranets. Specific responsibilities include: Act as Editor-in-Chief of all Library-developed and supported Web sites. Manage the daily operations of the Library's Web Development Team. Manage the human resources of the Web Content Development staff to ensure that the work environment is one in which all members feel valued and committed to excellence. Develop and manage an awareness program to ensure that all Library staff have an understanding of the Library's Web services. Act as informational resource to the public, staff, and other professionals about Web-related issues. Coordinate, plan and implement department activities and project work and participate in department projects and backup procedures.

2001-present

Program Director, Sponsored Programs & Research Support, University of Missouri-Kansas City (UMKC)

Responsible for promoting and overseeing grant and contract proposal development and submission for the University. Specific responsibilities include oversight of the UMKC Research Web; Web content development for proposal services; proposal and award reporting; presentation of semester seminar series in research and proposal development; development and management of electronic research administration systems; and oversight of all aspects of faculty and staff proposal development support.

2000-2001



Research Associate, Sponsored Programs & Research Support, UMKC

Responsibilities included identifying and disseminating funding opportunities; conducting faculty-specific funding opportunity searches; developing, conducting and advertising workshops in proposal development and project management; providing research-database instruction to faculty and staff; assisting in proposal team coordination for multi-disciplinary, multi-institutional efforts; assisting in the review, development, packaging, and submission of proposals; and designing and maintaining departmental and Graduate Faculties and Research Web sites.

1999-2000

Clinical Medical Librarian, Health Sciences Library, UMKC

Responsibilities included providing reference services to Health Sciences Library patrons; attending daily internal medicine rounds; providing medical information to docent teams; instructing medical students and other UMKC affiliates to access medical information; supporting the Health Sciences Library with input on strategic priorities, collection development, and special projects relating to health sciences librarianship; and designing and maintaining Health Sciences Library Web site.

1997-1999

Primary Care Education Coordinator, VA Medical Center, Kansas City, MO

Position responsibilities included coordinating mandatory and continuing education for all Primary Care clinicians and administrative staff; teaching information technology classes; providing computer software support; coordinating volunteers; serving on Medical Center-wide committees for curriculum development, patient education, marketing, and volunteer services; and designing and maintaining Primary Care Intranet site.

1997-1998

Learning Center Interim Manager, VA Medical Center, Kansas City, MO

Position responsibilities included reorganizing the consumer health information library, designing area and services, serving on the Learning Center staff search committees, serving as team leader for Learning Center staff, and managing all aspects of consumer health information dissemination in the Medical Center.

1996-1997

Patient Health Education Resource Center Intern, VA Medical Center, Kansas City, MO

Position responsibilities included creating and directing resource center, developing collection, providing reference services, designing patient health pamphlets, creating and maintaining web pages, cataloging and monitoring collection, and marketing resource center services.

## **EDUCATION**

2003 M.A., English: Professional Writing, University of Missouri-Kansas City

1998 M.L.S., School of Library Science and Information Management, Emporia State University

1995 B.A., English, University of Kansas

## **Sarah Handgraaf, Web Content Developer**

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Johnson County Library  
P.O. Box 2901, Shawnee Mission, KS 66201-1301  
handgraafs@jocolibrary.org  
Ph. (913) 495-2427

### **QUALIFICATIONS**

Four years of experience in web content research and development, usability, design, and maintenance. Web sites developed and/or maintained include:

- Johnson County Library
- Chapel of the Cross Lutheran Church
- Little Balkans Quilt Guild
- Pittsburg State University English Department
- Bob Wilson Grant County Community Hospital
- *The Wayne Stater* Staff, Wayne State College

### **EXPERIENCE**

2003-present

Johnson County Central Resource Library, Web Content Developer

Prepares text and graphics to be included on the JoCoLibrary.org Web site. Maintains writing quality and monitors JoCoLibrary.org and JoCoHealth.net Web site content for appropriate style. Updates home pages regularly and keeps content on assigned pages up to date. In addition, develops pages for staff Intranet. Writes procedural documents for teammates on topics such as, updating the home page; content configuration system tips, and page creation.

2002-2003

Little Balkans Quilt Guild, Webmaster

Responsible for redesigning Web site for quilt guild as part of Masters Program. Conducted survey with guild members regarding their preferences for the Web site. Met with guild board of directors and members monthly to gather up-to-date information to be posted on Web site. (i.e. developed calendar of events that listed upcoming meetings and workshops.)

2002

Bob Wilson Grant County Memorial Hospital, Communications Coordinator

Designed newsletter, newspaper advertisements, and Web site for local hospital and adjoining family clinic. Developed new slogan, (“Quality Care for the Community”) to help improve image of the facility. Met with hospital management team to access web needs of the patients, their families, and employees. (i.e. provided page of hospital and clinic services in addition to a “Meet the New Staff” page.)

### **EDUCATION**

2003 Master of Arts; Communication, Pittsburg State University

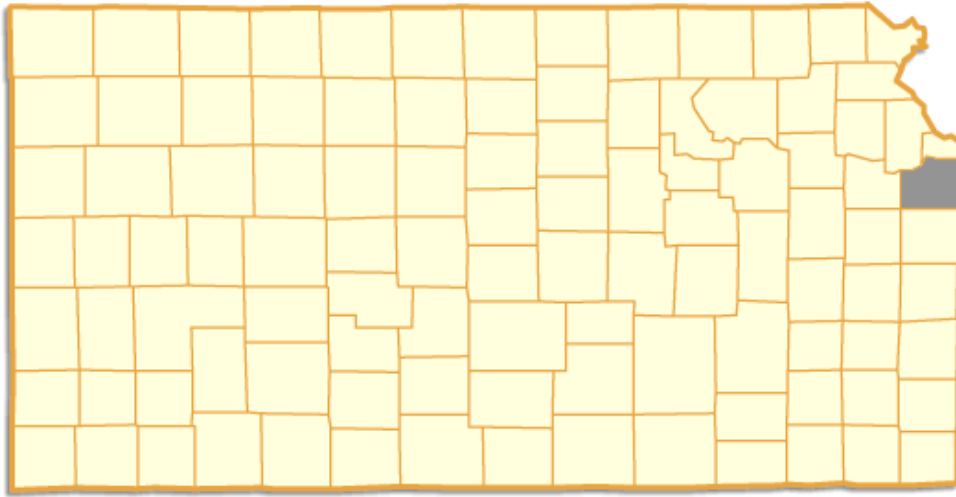
2001 Bachelor of Science; Mass Communication: Wayne State College

1999 Associate of Arts; Journalism, Colby Community College

## Area Map

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Johnson County is located in the northeastern Kansas.



Johnson County is located on the Kansas side of the Kansas City metropolitan area.

