

FIELD EXPERIENCE WITH THE GEARY COUNTY HEALTH DEPARTMENT

By

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A FIELD EXPERIENCE REPORT

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Abstract

This is a report of field experience with the Geary County Health Department (GCHD) in Junction City, Kansas. The GCHD seeks to improve public health, promote community well-being, prevent diseases, and protect the community from public health hazards. Two hundred and forty hours of field experience were completed under the supervision of Barbara Berry MS, MA, APRN, BC from June 17 to July 31, 2013. The field experience involved a variety of activities including attending internal planning meetings and meetings with collaborative partners, assisting with the implementation of a Text4Baby awareness campaign, developing messages that influence behavior of target groups, reviewing the disease investigation process, and shadowing staff during their day-to-day activities. The field experience was focused on communicating ideas that promote health and prevent diseases. The GCHD has been serving the Junction City-Geary County and Fort Riley areas since 1949. Services provided by the GCHD include: environmental, child care licensing, women infants and children (WIC) services, clinical services (family planning, STD/HIV/AIDs testing, immunizations, healthy start home visits, maternal child health, Junction City Youth Clinic, paternity testing, physicals, and TB testing), and health education. This report describes the field experience with the GCHD, addresses projects completed, experiences and academic application, and offers recommendations for the GCHD.

Keywords: Public Health, Text4Baby, Infant mortality, Geary County Health Department

Table of Contents

List of Figures	vii
List of Tables	viii
Acronyms	ix
Acknowledgements	x
Chapter 1 - Field Experience	1
GCHD Organizational Chart	2
Environmental	3
Childcare Licensing	3
WIC	3
Clinical Services	4
Family Planning	4
STDs Prevention and Treatment	4
Immunizations	4
Maternal Child Health, and Healthy Start	5
Junction City Youth Clinic	5
Health Education	5
Social Services	6
Learning Objectives	7
Objectives	7
Activities to be performed	8
Anticipated products	8
Chapter 2 - Field Experience Projects	9
Main project	9
Text4baby awareness project	9
Introduction	9
What is text4baby?	9
How it works	9
Text4baby Goals	10

Behavior change theories	10
Evaluation	11
Background	13
Program Plan.....	14
Implementation	16
Logic Model.....	17
Logic model description	17
Evaluation	18
Lessons Learned.....	18
Other projects.....	19
Disease Investigation project	19
Hepatitis C	19
Investigation process.....	20
Sexually transmitted infections (STIs) prevention project	21
Introduction.....	21
Background.....	22
Project plan	23
Behavior Change Theories.....	23
Theory of Reasoned Action (TRA).....	24
Health Belief Model (HBM).....	24
Transtheoretical Model (TTM).....	24
Social Cognitive Theory (SCT)	24
Socio-ecological perspective	25
Communication approaches.....	25
Strategic Communication.....	25
Health Communication Strategy.....	25
Health Education Strategy	26
Community-based Approaches	26
Community-based Participatory Research (CBPR).....	26
Chapter 3 - Experiences and Academic Application	27
Chapter 4 - Conclusion and Recommendations.....	30

Recommendations for GCHD.....	31
Appendix A - Text4baby Mini-grant Application for Communities	34
Appendix B - Text4baby Awareness Promotion	39
Appendix C - News Release	42
Appendix D - Hepatitis C Reporting Form.....	43
Appendix E - STI Prevention Sample Messages	46
Appendix F - Kansas Chlamydia and Gonorrhea Rates by County: January-December 2011 ...	49

List of Figures

Figure 1 GCHD Organizational Chart	2
Figure 2 Social Cognitive Theory and the Health Belief Model were used to predict behavior change. Source: Evans, 2011.	11
Figure 3 Logic Model for a program to reduce high infant mortality rate in Geary County.....	17
Figure 4 News Release.....	42
Figure 5 Hepatitis C Reporting Form	43
Figure 6 Hepatitis C Reporting Form	44
Figure 7 Hepatitis C Reporting Form	45
Figure 8 State of Kansas: Chlamydia Rates by County	49
Figure 9 State of Kansas: Gonorrhea Rates by County	50

List of Tables

Table 1 Implementation timeline	16
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Acronyms

CBPR	Community Based Participatory Research
CDC	Centers for Disease Control and Prevention
ECAC	Early Childhood Advisory Council
FIRM	Fetal Infant Mortality Review Board
GCHD	Geary County Health Department
HBM	Health Belief Model
HFKCM	Healthy Family Kansas Case Management
HIV	Human Immunodeficiency Virus
HMHB	Healthy Mothers Healthy Babies
HPV	Human papillomavirus
IMR	Infant Mortality Rate
KDHE	Kansas Department of Health and Environment
KP-LAUNCH	Kansas Project Linking Action for Unmet Needs of Children's Health
KU-CPPR	University of Kansas Center for Public Partnerships Research
OB/GYN	Obstetrics and Gynecology
SCT	Social Cognitive Theory
SIDS	Sudden Infant Death Syndrome
SMS	Short Messaging Service
STIs	Sexually Transmitted Infections
STD	Sexually Transmitted Disease
TB	Tuberculosis
TPTCM	Teen Pregnancy Targeted Case Management
TRA	Theory of Reasoned Action
TTM	Transtheoretical Model
WIC	Women Infants Children

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Chapter 1 - Field Experience

This is a report of a field experience with the Geary County Health Department (GCHD) in Junction City, Kansas. The GCHD seeks to improve public health, promote community well-being, prevent diseases, and protect the community from public health hazards (Geary County Health Department, 2013). Two hundred and forty hours of field experience were completed under the supervision of Barbara Berry MS, MA, APRN, BC from June 17 to July 31, 2013.

The field experience involved a variety of activities including attending internal planning meetings and meetings with collaborative partners and webinar meetings, assisting with the implementation of the text4baby awareness campaign, developing messages that influence behavior of target groups, reviewing the disease investigation process, and shadowing staff during their day-to-day activities. The field experience was focused on communicating ideas that promote health and prevent diseases. This report describes the field experience with the GCHD, addresses projects completed, experiences, and academic application, and offers recommendations for the GCHD.

GCHD Organizational Chart

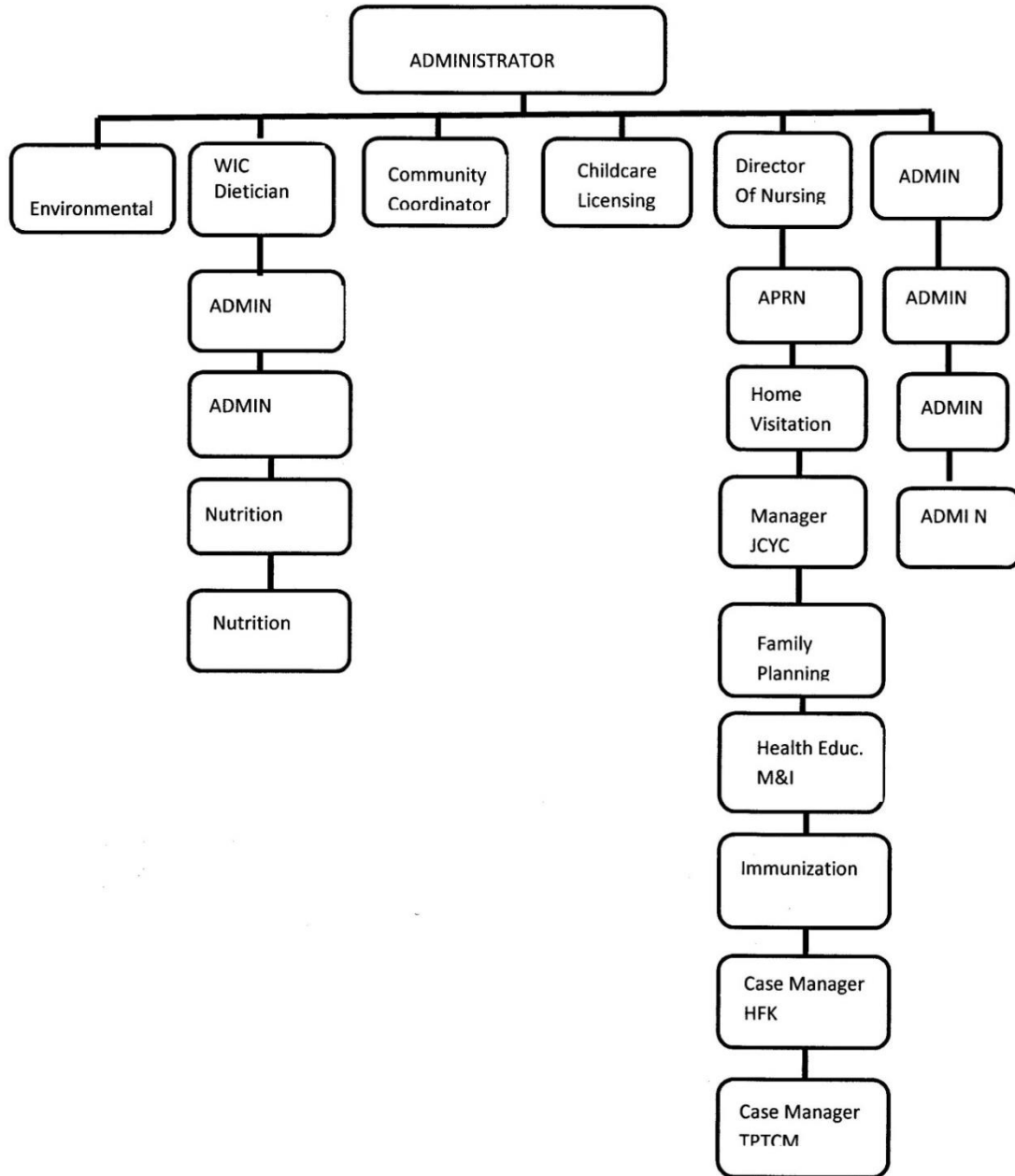


Figure 1 GCHD Organizational Chart.

Source: GCHD supervisory chart, 2013

The GCHD has been serving the Junction City-Geary County and Fort Riley areas since 1949. Services provided include environmental; childcare licensing; women, infants, children (WIC); clinical; and health education (Geary County Health Department, 2013).

Environmental

The environmental (rural lake region of the GCHD) is responsible for the overseeing of private on-site waste water system installation, private domestic water supply well drilling, waste water planning, solid waste management, hazardous waste management, public water supply protection, and non-point source pollution control septic systems, and water systems (Geary County Health Department, 2013).

Childcare Licensing

The childcare licensing surveyor is responsible for surveying childcare facilities and also conducts classes at the health department for those wishing to become childcare providers (Geary County Health Department, 2013).

WIC

The goal of the WIC program is to improve the health and nutritional well-being of Kansans through access to quality nutrition intervention services by a licensed dietitian and a registered nurse, breastfeeding promotion and support, and nutrition education and referrals to other health services (Geary County Health Department, 2013). The program provides nutritional education and supplemental foods to income-eligible Kansas women who are pregnant, postpartum, or breastfeeding. Services are also provided for infants and children under the age of 5 years (Geary County Health Department, 2013). I had the opportunity to observe the WIC dietitian during three of her nutrition assessment appointments. The dietitian obtains

the child's weight and height; she then asks the parent(s) if they have met their stated goals, and then educates the parent(s) on what foods they can feed or not feed their children depending on the age of the children. For example, not to give their children fruit juices before they are nine months old due to the high content of sugar in the fruit juices which is unhealthy for the children.

Clinical Services

The clinical services program is responsible for providing family planning, STD/HIV/AIDs testing, immunizations, disease investigation, healthy start home visits, maternal child health, Junction City Youth Clinic, paternity testing, physicals, and TB testing (Geary County Health Department, 2013).

Family Planning

The goal of the family planning program is to give women the option of preventing or delaying pregnancy. Services include counseling, education, pre-conception care, screening, laboratory tests, and birth control options (Geary County Health Department, 2013).

STDs Prevention and Treatment

The health department offers confidential STD/HIV screening and counseling services. Screening covers gonorrhea, chlamydia, syphilis, HIV, HPV, and herpes (Geary County Health Department, 2013).

Immunizations

Childhood vaccinations are required for school, head start, or day care. In addition, the Centers for Disease Control and Prevention (CDC) recommend specific vaccination for entering high school or college. The GCHD provides vaccine services targeted for underinsured and uninsured children. Infants receive free vaccination, and underinsured/uninsured children 4-18

years of age can receive vaccinations with reasonable administration fee (Geary County Health Department, 2013).

Maternal Child Health, and Healthy Start

Maternal and infant health staff partner with other agencies to provide health resources, education, outreach and family support for healthy mothers, infants, children, and adolescents (Geary County Health Department, 2013).

Junction City Youth Clinic

The Junction City Youth Clinic serves clients from 6 months to 21 years of age. Services provided include minor illnesses, immunizations, health education, physicals (sports, school, day care, Kan-Be-Healthy, work, youth service, Headstart), family planning services, STD/HIV screening and counseling services, community outreach services, and general counseling and referrals (Geary County Health Department, 2013).

Health Education

Health education is any combination of learning experiences designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes (World Health Organization, 2013). SafeKids is an international organization aimed at protecting children 0 to 14 from unintentional injuries from bicycle accidents, car accidents, burns, falls, choking, etc. (Geary County Health Department, 2013). The GCHD collaborates with SafeKids to provide safety equipment and education to the residents of Geary County (Geary County Health Department, 2013). I shadowed the health educator during two of her classes to teenage parents. Classes are held at the Junction City youth clinic every Tuesday afternoon. I sat in two of the classes and observed the health educator educate a group of culturally diverse women. One of the classes was about safety tips including water safety,

bicycle safety, motor vehicle safety, and pedestrian safety. On water safety, the health educator told the clients to never take their eyes off children when in or around water, and if their child cannot swim, to be within an arm's reach so that the child does not drown. As for bicycle safety, children should wear helmets that fit properly every time they are on a bike so as to protect their heads in case they fall off of the bike. For motor vehicle safety, she told the clients that children under 4 feet, 9 inches should be in a child passenger seat on every ride and for them to know where children are when they are backing so they do not back into a running child (Geary County Health Department, 2013). These safety tips are taught at this time because during the summer months, kids spend most of the time engaging in outdoor activities. Therefore, parents need to supervise them very closely. The other class was on sexually transmitted infections (STIs) such as chlamydia, and gonorrhea. These two infections are focused on because Geary County has the highest rates of chlamydia (841/100,000 population), and second highest rates of gonorrhea (171.7/100,000 population) in Kansas (Kansas Department of Health and Environment, 2011). I had the opportunity to test the messages that I had developed for the STI prevention project with the group of teenage mothers and mothers-to-be, to see which message was effective. They all agreed that the sample messages were effective as long as there is a telephone number that one can call to get additional information.

Social Services

The GCHD also offers social services to the community. Their programs include the Teen Pregnancy Targeted Case Management (TPTCM) and the Healthy Family Kansas Case Management (HFKCM). The TPTCM assists teen moms in developing a support system, receiving supportive services needed in obtaining goals, completing basic education prior to the birth of a second child, obtaining adequate prenatal care, reducing dependency on welfare by

getting employed, and meeting parental responsibilities. The HFKCM offers outreach; prevention and early intervention services that promote positive parenting and healthy child development through the support of a family consultant who will help first-time parents in Geary County achieve their life goals (Geary County Health Department, 2013).

Learning Objectives

Prior to beginning the field experience, 5 learning objectives were identified with the assistance of my preceptor and major professor. Activities to be performed and anticipated products were also identified.

Objectives

1. Successfully use problem-solving skills to address complex public health problems
2. Effectively and persuasively communicate public health ideas to a target population in written and verbal format using a variety of media
3. Demonstrate leadership in a public health setting
4. Understand the mission of public health in the five service areas: Social and behavioral sciences, epidemiology, biostatistics, environmental health, and health service management and policy
5. Analyze determinants of morbidity and mortality and create messages that positively influence outcomes

Activities to be performed

1. Attend internal planning meetings and meetings with collaborative partners
2. Assist or lead focus groups for target populations
3. Assist in developing messages to affect behavior and influence morbidity and mortality outcomes for target groups
4. Assist in data gathering and analysis for the community assessment
5. Assist in creating displays, presentations, and other materials that can message target groups

Anticipated products

1. Community data and analysis for the community health assessment
2. Information and ideas gathered from focus groups
3. Messaging developed to influence morbidity and mortality outcomes for target groups
4. Displays, presentations, and other materials that can message target groups

The specific activities to be performed and the anticipated products changed during the field experience. However, the originally stated objectives remained and were fulfilled.

Chapter 2 - Field Experience Projects

Main project

Text4baby awareness project

Introduction

What is text4baby?

Text4baby is a free mobile information service designed to promote maternal and child health. An educational program of the National Healthy Mothers, Healthy Babies Coalition (HMHB), text4baby provides pregnant women and new moms information to help them care for their health and give their babies the best possible start in life. Text4baby is the largest national mobile health initiative to date and was launched February 4, 2010 by a group of public and private partners including the White House Office of Science and Technology Policy, U.S. Department of Health and Human Services, and the Department of Defense Military Health Systems (www.text4baby.org).

How it works

Women who sign up for the service by texting BABY to 511411 (or BEBE in Spanish) will receive three free short messaging service (SMS) text messages each week, timed to their due date or baby's date of birth. The messages address topics such as labor signs and symptoms, prenatal care, urgent alerts, developmental milestones, immunizations, nutrition, birth defects prevention, safe sleep, etc. Text4baby's power lies in its ability to get quickly and easily the most essential health information to mothers in need using a technology they regularly use. Over 91% of Americans own a cell phone, and 82% of cell phone users send or receive text messages (www.text4baby.org).

Text4baby Goals

1. To demonstrate the potential of mobile health technology to address a critical national health priority maternal and child health
2. To demonstrate the potential of mobile health technology to reach underserved populations with critical health information
3. To develop a base of evidence of mobile health interventions
4. To catalyze new models for public-private partnerships in the area of mobile health (www.text4baby.org).

Behavior change theories

Many behavioral theories including the Socio-ecological Model, Health Belief Model, Social Cognitive Theory, Theory of Planned Behavior, and the Transtheoretical Model are relevant to mobile health promotion programs (Evans, Abrams, Poropatich, Nielsen, & Wallace, 2012).

Text4baby uses the Health Belief Model construct of text messaging serving as a cue to action with salient information for pregnant women providing tips to help improve prenatal and postpartum health care and behavior (Evans et al., 2012). It uses social cognitive theory constructs of self-efficacy, and positive outcome expectations in constructing message content to promote engagement with the program (Evans et al., 2012). It uses the theory of planned behavior in predicting a sequence of cognitive and affective changes leading to behavioral intentions and behaviors, and models messaging around the hypothesized change process (Evans et al., 2012).

The figure below represents how behavioral theory has been used in a text4baby project (Evans et al., 2012).

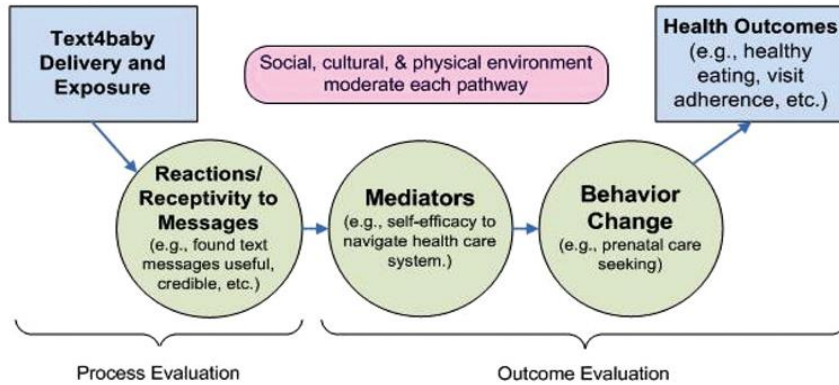


Figure 2 Social Cognitive Theory and the Health Belief Model were used to predict behavior change. Source: Evans, 2011.

Evaluation

Text4baby evaluation conducted by the National Latino Research Center and University of California San Diego, demonstrated that text4baby is “increasing user’s health knowledge, facilitating interaction with health providers, improving adherence to appointments and immunizations, and strengthening access to health services” (www.text4baby.org). A George Washington University randomized evaluation showed that text4baby participants were three times more likely to believe that they were well prepared to be new mothers (www.text4baby.org). Data from the Alliance of Chicago Community Health Service showed a lower percentage of missed appointments by text4baby users (11%) vs. non-users (17%) (www.text4baby.org).

The Early Childhood Advisory Council (ECAC) and Kansas Project LAUNCH (Linking Action for Unmet Needs in Children's Health) were seeking Kansas communities interested in creating public awareness about text4baby with the goal of increased enrollment. Mini-grants of up to \$1,000 were available (one application per community). The funds could be used to purchase local radio or television PSAs, movie advertisements, flyers, pens, buttons, onesies, bibs, or other promotional materials. Participants could host a community baby shower or health fair where funds could be used to purchase door prizes and giveaways. To be eligible for funding, the organization applying must agree to the following: begin the text4baby campaign in the target community within 30 days of award, become a text4baby partner in order to access free promotional materials, promote text4baby in OB/GYN and other health care settings in the target community, and provide follow up information as needed and work with evaluation team members. The deadline for the application was June 21, 2013. See Appendix A for information about the text4baby mini-grant application for communities. Geary County Health Department (GCHD) applied and was awarded the mini-grant on July 11, 2013. Funding for the text4baby project was provided by the Early Childhood Advisory Council (ECAC) and administered through the University of Kansas Center for Public Partnerships and Research (KU-CPPR). See Appendix A for application for funds and award letter.

I assisted GCHD in the implementation of the text4baby awareness program. For this project, I was responsible for making presentations about how text4baby answers mother's questions to different groups of people. I reviewed the text4baby website and prepared notes on what text4baby is, why it was started, and how the services work, and then presented the information first to the nursing staff of GCHD so that they can explain the services to their clients. The second presentation was to the GCHD collaborative partners during a community

meeting held at the Geary Community Hospital. These community meetings are held once a month in which members update on progress of community events in their respective organizations. The third presentation was to the WIC staff so that they can provide flyers and help promote the text4baby services to mothers who come for services. The fourth presentation was to a group of pregnant women during one of their prenatal classes. I developed a plan for this project (see program plan below). I also explained the text4baby services to fair attendees during a health fair organized by the GCHD (see Appendix B).

Background

Infant mortality is an important indicator of the health of the community or the State (Kansas Department of Health and Environment, 2012). It is also associated with a variety of factors such as economic development, general living conditions, social well-being where basic needs are met, rates of illness such as diabetes and hypertension, and quality of the environment (Kansas Department of Health and Environment, 2012b). The United States has an infant mortality rate of 6.5 per 1,000 live births and is one of the highest among most of the industrialized nations (Whittaker et al., 2012). Over 28,000 babies in the U.S. die before their first birthday and 500,000 are born too early. Causes of poor health outcome are complex and include poverty, oppression, lack of access to health care, and lack of information (Whittaker et al., 2012). According to Kansas Department of Health and Environment (KDHE), the leading causes of death among infants are birth defects, pre-term delivery, low birth weight, Sudden Infant Death Syndrome (SIDS), and maternal complications during pregnancy (Kansas Department of Health and Environment, 2012a).

Geary County is a semi-urban area with a population of 38,013 (U.S. Census Bureau, 2012; United States Census, 2012) with the following demographics: White 60.2%, Black

18.4%, Hispanic 13.1%, Native American 1.2%, Asian 3.4%, and Pacific Islander .8%. About 12.5% of Geary County's population is below poverty (U.S. Census Bureau, 2012), and 80% of the population is uninsured or underinsured (Kansas Department of Health and Environment, 2012a).

In the last century, the Kansas infant mortality rate (IMR) has decreased dramatically from 73.5 deaths per 1,000 live births in 1912 (2,795 infant deaths) to 7.0 deaths per 1,000 live births in 2011 (247 infant deaths) (Kansas Department of Health and Environment, 2012a). Although the infant mortality in Kansas reached a historic low in 2011, it still exceeds the Healthy People 2020 objective of 6.0 deaths per 1,000 live births. From 2007-2011, Geary County had an infant mortality rate of 9.9 per 1,000 live births in comparison to the Kansas rate of 7.0 for the same period. Equally challenging during this period was the considerable rate of 17.6 for mothers who smoked during pregnancy (Kansas Department of Health and Environment, 2012a). This campaign aims to decrease the infant mortality rate in Geary County. Text4baby will provide an excellent user friendly method to send consistent and repeated messages to promote maternal and infant health such as smoking cessation, early prenatal care, and keeping prenatal appointments.

Program Plan

Goal

- To decrease Geary County's infant mortality

Objectives

- Increase awareness about text4baby
- Increase the number of women who enroll in the text4baby awareness program
- Increase the number of mothers who will access information about text4baby

- Increase the number of women who will take the recommended actions

Strategy

- Promote awareness with press event in the community to announce the Geary County text4baby initiative

Tactics

- Collaborate with agency partners such as the Flint Hills OB/GYN clinic, Ft. Riley Public Health, Geary Community Health Care Foundation, Geary Community Hospital and Clinics, Irwin Army Community Hospital, Konza Prairie Community Health & Dental Center, Geary County Fetal Infant Mortality Review Board
- Send out press release about how text4baby will make a difference for moms
- Provide a presentation about how text4baby service answers mom's questions
- Add text4baby web enrollment button to the Health Department's website and promote the service on the Health Department's Facebook page
- Health Department staff to explain services to clients
- Organize baby shower for pregnant moms with a cake and small gifts and fun activities, and staff will help them sign up for text4baby
- Invite pregnant moms to the health department for face-to-face assistance
- Promote text4baby during prenatal classes
- WIC staff will provide flyers and promote text4baby services to moms who come for services

Evaluation

- Evaluation will be based on the above objectives

Implementation

Table 1 Implementation timeline for Geary County text4baby awareness program. Source: adapted from McKenzie et al., 2012

Tasks	Months						
	June	July	August	September	October	November	December
Apply for funds	X						
Develop goals and objectives	X						
Assemble necessary resources		X					
Promote the program		X					
Implement the program		X	X	X	X	X	X
Prepare final report						X	X
Submit final report							X

The target population for the text4baby awareness program is under insured/uninsured women of child bearing age in Geary County, Kansas. The implementation of the text4baby program will take a six month span in which the goals and objectives will be put into action. During the third week of June 2013, application for funding was submitted to the Early Childhood Advisory Council. During the second week of July 2013, funds were received from the Early Childhood Advisory Council. A news release was sent to the Junction City daily union newspaper introducing the text4baby program (see Appendix C). On July 27, 2013, the text4baby awareness program was officially launched by the mayor of Junction City at a health fair event organized by the Geary County Health Department. As noted earlier, I assisted in the implementation of the text4baby awareness program by delivering presentations to a variety of

population, and also explaining the text4baby services to fair attendees during the launching of the program (Appendix B). Appendix A outlines the action steps for implementing the text4baby awareness program. The staff of the Geary County Health Department will continue to promote the text4baby program and enroll pregnant women and mothers with children under one year of age until December 31, 2013.

Logic Model

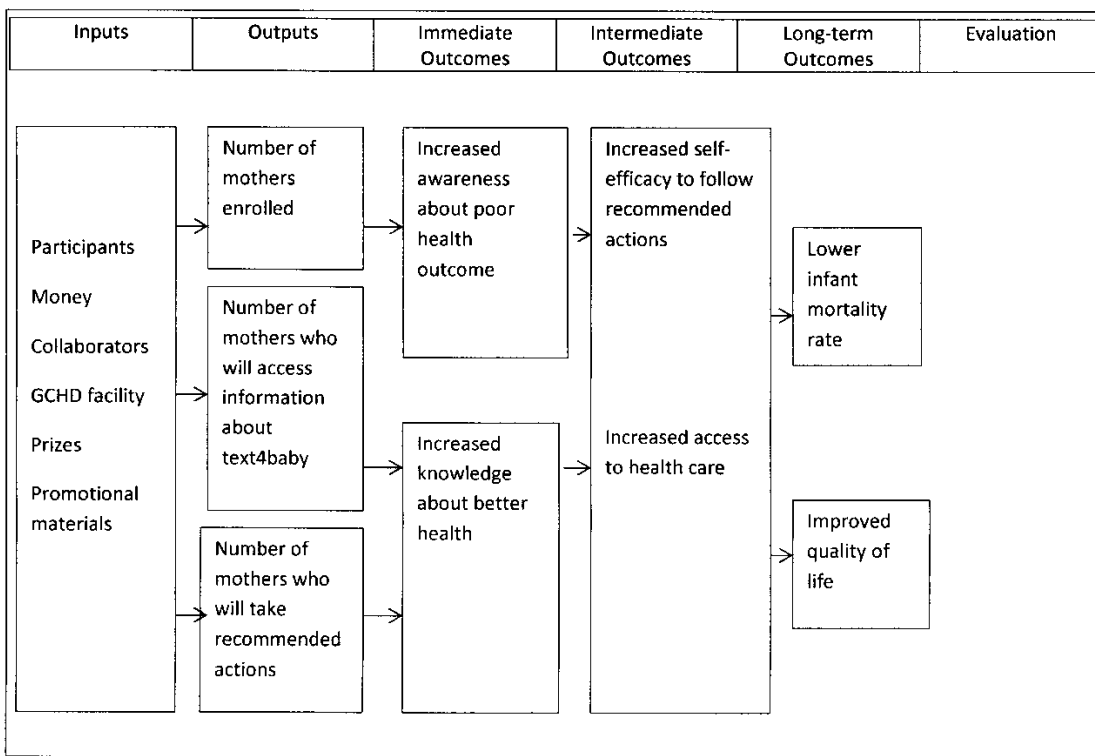


Figure 3 Logic Model for a program to reduce high infant mortality rate in Geary County. Source: adapted from McKenzie et al., 2012

Logic model description

The text4baby program requires a number of inputs and outputs in order to ultimately reach the program outcomes. Program inputs are the resources that are required to implement the program. The text4baby program logic model begins with the necessary resources to achieve

the program's objectives. Participants, money, collaborators, GCHD facility, prizes, and promotional materials are inputs that will be required to implement the text4baby health program. These inputs will be utilized to accomplish the outputs of number of mothers enrolled, number of mothers who will access information about text4baby, and number of mothers who will take recommended actions. Utilization of the outputs will lead to the intended results of immediate outcomes, intermediate outcomes, and long-term outcomes.

Evaluation

This program will be evaluated by the Early Childhood Advisory Council and the University of Kansas Center for Public Partnership and Research after December 31, 2013 after receiving a final report from the Geary County Health Department.

Previous evaluation conducted by the National Latino Research Center and University of California San Diego, demonstrated that text4baby is increasing user's health knowledge, facilitating interaction with health providers, improving adherence to appointments and immunizations, and strengthening access to health services (text4baby.org)

Lessons Learned

Messages focus on topics critical to the health of moms and babies: including immunizations, nutrition, seasonal flu, mental health, smoking and alcohol, oral health, and safe sleep. More than 500,000 babies are born prematurely each year in the U.S., the risk of premature birth can be reduced if mothers take care of themselves and their babies during pregnancy and prenatal. Ensuring that mothers are connected to health knowledge and services as early as possible can help avoid expensive and harmful complications at birth and in the baby's first year of life.

Other projects

Disease Investigation project

The purpose of disease investigation is to understand the patterns that exist in the occurrence of different diseases. Investigations help epidemiologists find out how to control a current outbreak of a disease and to prevent further outbreak of the disease. Communicable diseases that are investigated by the Geary County Health Department include: Hepatitis B and C, Tuberculosis, and some zoonotic diseases such as Tularemia and Ehrlichiosis. During my field experience, I reviewed the disease investigation process, and shadowed the disease investigator during the disease investigation process. The disease investigator investigated more than ten cases of Hepatitis C, an active case of Tuberculosis, and one case of Ehrlichiosis. I also reviewed documentation on Hepatitis C. I wanted to know more about Hepatitis C because it was the most investigated communicable disease during the duration of this field experience.

Hepatitis C

Hepatitis C is a liver disease that results from infection with the Hepatitis C virus (Centers for Disease Control and Prevention, 2013). Hepatitis C is usually spread when blood from a person infected with the Hepatitis C virus enters the body of someone who is not infected. People become infected with Hepatitis C by sharing needles or other equipment to inject drugs. Before 1992, when widespread screening of blood supply began in the U.S., Hepatitis C was commonly spread through blood transfusions and organ transplants (Centers for Disease Control and Prevention, 2013).

Hepatitis C can either be acute or chronic. Acute Hepatitis C occurs within the first six months after someone has been exposed to the Hepatitis C virus. Chronic Hepatitis C can result

in long-term health problems including death. There were an estimated 16,000 acute Hepatitis C virus infections reported in the U.S. in 2009, and an estimated 3.2 million persons in the U.S. have chronic Hepatitis C (Centers for Disease Control and Prevention, 2013). There is no vaccine for Hepatitis C, therefore, the best way to prevent Hepatitis C is by avoiding behaviors that can spread the disease especially injection drug use (Centers for Disease Control and Prevention, 2013).

Investigation process

Cases are sent electronically by the KDHE epidemiologist to the Geary County disease investigator. The disease investigator then contacts the physician who ordered the testing to confirm the diagnosis and to determine the reason for testing. The investigator then asks the physician/nurse if case is aware of diagnosis and if case has been referred to a gastroenterologist. The investigator then collects the cases' demographic data and contact information (birth date, sex, race/ethnicity, occupation, phone number). The investigator then contacts the case and confirms contact information and asks if the case had any symptoms such as abdominal pain, fatigue, dark urine, etc. The investigator also asks if the case had received blood transfusion prior to 1992, and also if the case knew anyone who had Hepatitis C that might have exposed them to the bacteria, and so on (see appendix C for Hepatitis C reporting). In discussion with the case, the investigator explains the mode of transmission and provides information about prevention, for example not to share personal items such as razors. Cases were willing to answer the investigator's questions, and were willing to accept recommendations as well. The investigator then closes the case and reports the information via the Kansas electronic surveillance system. The disease investigation helped me gain insight of the investigator/physician/nurse/case interaction in order to control a disease outbreak.

Sexually transmitted infections (STIs) prevention project

Introduction

Mobile phone technologies (mhealth) have been shown to be effective in several public health domains such as promoting smoking cessation, weight loss, physical activity, diabetes management, sexually transmitted disease (STD) prevention and treatment, and hypertension treatment (Evans et al., 2012).

Sexually transmitted infections (STIs) or (STDs) are infections that are passed from person to person through intimate sexual contact (U.S. Department of Health and Human Services, 2009). STIs are serious public health problems. In the United States, sexually transmitted diseases (STDs) or sexually transmitted infections (STIs) are among the most commonly reported infectious diseases (Paschal, Oler-manske, & Hsiao, 2011). Although STIs affect all population groups (Paschal et al., 2011), sexually transmitted infections disproportionately affect poor African American adolescents, placing them at elevated risk for acquiring and transmitting HIV as well as increasing their vulnerability to infertility, unfavorable pregnancy outcomes, and cervical cancer (Sznitman et al., 2011). There are about 19 million new infections that occur each year in the United States, and almost half of these infections are among people ages 15-24 years old (U.S. Department of Health and Human Services, 2009). Effective strategies for reducing STI risk include: abstinence, mutual monogamy, vaccination, reducing the number of sexual partners, and correct and consistent use of the male latex condom (Centers for Disease Control and Prevention, 2012).

Background

Reports from the Kansas Department of Health and Environment (KDHE) indicate that Geary County had the highest Chlamydia rate in Kansas, and was second only to Wyandotte County for the highest rate of gonorrhea (Kansas Department of Health and Environment, 2011). From January to December 2012, Kansas Chlamydia rate was 387.9 per 100,000 Population while the Chlamydia rate for Geary County was 761.5 per 100,000 Population. The Gonorrhea rate for Kansas was 77.9 per 100,000 Population, while the Gonorrhea rate for Geary County was 206.7 per 100,000 Population (KDHE, 2012). There is therefore urgency among the Geary County Health Department (GCHD) staff to lower the high sexually transmitted infection (STI) rates in Geary County (Kansas Department of Health and Environment, 2013). GCHD staff plan to use mobile phones to send text messages about STI prevention to their clients.

For this project, I was responsible for developing messages for prevention of STIs that the GCHD staff would use to educate the target population through text messaging. GCHD staff intends to send the messages to their current clients via text messaging with the hope of creating awareness about STI prevention among Geary County youth. The target population for this project is uninsured/underinsured Geary County young adults (18-28 years of age) who are current clients of the GCHD. I searched data bases for articles about sexually transmitted infections (STIs) prevention: Keywords for the search included: Text messaging for STI prevention, mobile health and STI prevention, strategic health communication and STI prevention. I summarized information and developed the STI prevention messages (see Appendix E for STI prevention sample messages). Messages were then reviewed by field experience preceptor for accuracy. As stated earlier, 13.1% of Geary County's population is Hispanic and that means that Spanish is the second most spoken language in Geary County.

Therefore, the messages about STI prevention were then translated into Spanish using the online translator, translate.google.com.

Project plan

Goal

- Prevention of further spread of STIs

Objectives

- Visit Geary County Health Department for services
- Increase number of young adults who use condoms for prevention of STIs
- Prevent re-infection of the already treated target group in 12 months

Strategies

- Encourage weekly visits for counseling services at the Geary County Health Department
- Empower the target group to be peer educators for prevention of STIs through educational seminars

Evaluation

- Evaluation will be done in one year and will be based on the above objectives

Behavior Change Theories

Theories are very valuable for understanding factors that influence health behavior change and how they work together. Understanding the influential factors that can affect health behavior change can assist in the design of effective interventions to change health behavior (McKenzie et al., 2012, p. 166). Examples of behavior change theories include: Theory of Reasoned Action/Planned Behavior, Health Belief Model, Transtheoretical Model, Social Cognitive Theory, Socio-economical Perspective, etc. (McKenzie et al., 2012, p. 166).

Theory of Reasoned Action (TRA)

Attitudes and subjective norms influence behavioral interventions which in turn influence behavior (McKenzie et al., 2012, p. 171).

Health Belief Model (HBM)

The Health Belief Model (HBM) is a conceptual frame work used to understand health behavior and possible reason for non-compliance with recommended health action (Hayden, 2009, p. 38). The HBM addresses four major components for compliance with recommended health action: Perceived barriers of recommended health action, perceived benefits of recommended health action, perceived susceptibility of the disease, and perceived severity of the disease (Hayden, 2009, p. 38). The likelihood of action is influenced by the perceived susceptibility and perceived threat of the disease/condition as well as the perceived benefits and perceived barriers to engaging in the health behavior that would prevent the disease/condition (McKenzie et al., 2012, p. 174).

Transtheoretical Model (TTM)

TTM uses theories, constructs, and ideas from multiple sources to understand how people progress toward adopting and maintaining health behavior changes. One key contribution of the TTM is recognizing that behavior change occurs in stages (McKenzie et al., 2012, p. 181).

Social Cognitive Theory (SCT)

SCT recognizes that environments influence individuals, but also individuals can influence their environments and regulate their own behavior (McKenzie et al., 2012, p. 188).

Socio-ecological perspective

The socio-ecological perspective recognizes that behavior has multiple levels of influences. It “emphasizes the interaction between and the interdependence of factors within and across all levels of health problems: that is to say, individuals influence and are influenced by their families, social networks, the organizations in which they participate, communities in which they are a part of, and societies in which they live” (McKenzie et al, 2012, p. 166).

Communication approaches

Strategic Communication

Strategic communication involves audience segmentation (Muturi, 2005). Objectives of strategic communication should focus on attitude change and awareness, and knowing the attitudes of the audience at the start of the project; their stage of understanding; the appropriate ways of reaching them, including consideration of culture and other matters that are competing for their attention. Appropriate strategies may include various public health interventions, behavior change communication, marketing and mobilization strategies, and counseling (Muturi, 2005).

Health Communication Strategy

Health communication is defined as “the study and use of communication strategies to inform and influence individuals and community decisions that affect health” (Schiavo, 2007, p. 5). The goal of health communication programs is to increase knowledge and understanding of health-related issues and to improve the health status of the intended audience (Muturi, 2005). Messages must be concise and to the point, credible, relevant to the intended audience, consistent, simple, and easy to remember. Message repetitiveness and frequency are also important factors in health communication (Schiavo, 2007, p. 313).

Health Education Strategy

Health education is defined as “any planned combination of learning experiences designed to predispose, enable, and reinforce voluntary behavior decisions conducive to health in individuals, groups, or communities” (McKenzie et al., 2012, p. 219).

Community-based Approaches

Community-based Participatory Research (CBPR)

Community-based participatory research (CBPR) is an action research approach that emphasizes collaborative partnership between community members, community organizations, health care providers and researchers to generate knowledge and solve local problems (Berge, Mendenhall, & Doherty, 2009).

Chapter 3 - Experiences and Academic Application

I performed the following activities during the field experience: attended two community meetings with agency collaborative partners such as the Geary Community Hospital and Clinics, the Flint Hills OB/GYN clinic, Irwin Army Community Hospital, Konza Prairie Community Health and Dental Center, Pawnee Mental Health, and Geary County Fetal Infant Mortality Review Board (FIMR), attended 4 internal planning meetings, attended two webinar meetings (one on sexually transmitted infections (STI) prevention, and the other was on national shortage of tuberculin vials for TB skin test), reviewed the disease investigation process and shadowed the disease investigator during the disease investigation process and reviewed documentation on Hepatitis C. I wanted to know more about Hepatitis C because it was the most investigated communicable disease during the duration of the field experience. The disease investigator investigated more than ten cases of Hepatitis C. I developed two program plans: one for a sexually transmitted infection (STI) prevention project and the other for a text4baby awareness program; I observed the WIC dietitian during nutrition assessment appointments and shadowed the “Healthy Start” home visitor during home visits; and delivered four presentations about text4baby to a variety of audiences. Text4baby is a mobile educational program of the Healthy Mothers Healthy Babies coalition designed to promote maternal and infant health through text messaging. The first presentation was to the nursing staff of GCHD, the second was to GCHD collaborative partners, the third was to the WIC staff, and the fourth presentation was to a group of teenage mothers and mothers to be. I also developed messages for STI prevention and tested the messages during a presentation about STIs to GCHD clients to see which messages were effective.

Courses relevant to this field experience included Introduction to Epidemiology, Fundamental Methods of Biostatistics, Administration of Health care Organizations, Social and Behavioral Basis of Public Health, Fundamental Concepts of Emerging Pathogenic Diseases, Multidisciplinary Thought and Presentation, Global Health Issues, Program Planning/Evaluation, and Strategic Health Communications all taken at Kansas State University. During the field experience, I integrated the knowledge obtained from the classroom through critical thinking in the development of public health interventions, communication and leadership skills, as well as knowledge of theory-based models of program planning and applied it in the development of interventions that influence morbidity and mortality outcomes for target groups; creating displays and presentations; and development of messages that impact behavior of target population.

Participating in the meetings with the collaborative partners gave me the opportunity to see the importance of sharing public health ideas. One of the main projects that I worked on was assisting the GCHD with promoting a text4baby awareness campaign. Text4baby is a free mobile informational service of the Healthy Mothers Healthy Babies Coalition (HMHB) that is designed to promote maternal and child health through text messaging. The goal of this project is to decrease Geary County's high infant mortality rate. I used my knowledge of program planning, implementation, and evaluation to develop a plan for this project. Another responsibility I had was to develop messages that influence behavior in a target group. I developed twelve messages for prevention of STIs for young adults' ages 18-28 years old. I utilized my knowledge of theory-based program planning and developed a plan for this project. I also used my knowledge of strategic health communication to develop the messages. Messages need to be concise and to the point; they have to be relevant, consistent, simple, and easy to

remember. My field experience was focused on communicating ideas that promote health and prevent diseases. Epidemiologic principles and the concept of risk was utilized in the disease investigation; the concept of how behavior relates to health outcome was utilized in the STI prevention project through interventions of health communications and health education by focusing on re-enforcing positive behaviors such as use of condoms during sexual contact in order to prevent infecting or re-infecting others with a STI.

Chapter 4 - Conclusion and Recommendations

In conclusion, the field experience at the GCHD exposed me to a variety of activities including attending internal planning meetings and meetings with collaborative partners and webinar meetings, assisting with the implementation of the text4baby awareness campaign, delivering presentations about the text4baby program to target groups, developing messages that influence behavior of a target population, reviewing and understanding the disease investigation process and shadowing the disease investigator during the disease investigation process, attending a health fair and explaining text4baby services to fair attendees, participating in a fire drill, shadowing the WIC dietitian during nutrition assessment appointments, and shadowing the Healthy Start Home Visitor during home visitation appointments.

I am thankful for the knowledge that I gained from this field experience. The field experience has provided me the opportunity to apply the knowledge and skills learnt in the classroom as requirement for the Master of Public Health program at Kansas State University into practice. Courses that were relevant to this field experience included Epidemiology, Fundamental Methods of Biostatistics, Administration of Healthcare Organization, Social and Behavioral Basis of Public Health, Fundamental Concepts of Emerging Pathogenic Diseases, Multidisciplinary Thought and Presentation, Global Health Issues, Program Planning/Evaluation, and Strategic Health Communication all taken at Kansas State University. I enjoyed taking part in all aspects of the field experience. The original activities and products to be performed changed at the start of the field experience. However, the original stated objectives remained and were fulfilled.

Recommendations for GCHD

1. Develop data collection system to identify STI risk factors and geographic distribution of these STIs in Geary County.
2. Send out a survey to target population to see if it is okay for them to be contacted via text messaging.
3. Implement interventions known to prevent STI, adapting them to the target audience. Prevention program should be based on evidence and should be pre-tested prior to implementation.
4. Develop a plan outlining specific actions and measurable outcomes.
5. Evaluate the intervention to determine success of the program.
6. Use strategic communication and participatory methodologies to engage communities in the STI prevention process. Audience feedback on prevention initiatives both enhances communication efficacy and increases knowledge retention and positive attitudes among participants.
7. Address health disparities in Geary County. Demographic trends indicate that minorities and people of low socio-economic status are at greater risk for STIs. Therefore, as socio-economic inequalities continue, the gaps in STI rates between the most affluent and the most marginalized will expand. To address this disparity in Geary County, access to affordable health care for all is necessary.

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Appendix A - Text4baby Mini-grant Application for Communities



Mini-grant Application for Communities

Text4baby is a free mobile information service designed to promote maternal and child health. An educational program of the National Healthy Mothers, Healthy Babies Coalition (HMHB), text4baby provides pregnant women and new moms information to help them care for their health and give their babies the best possible start in life. Women who sign up for the service by texting BABY to 511411 (or BEBE in Spanish) will receive free SMS text messages each week, timed to their due date or baby's date of birth. Text4baby's power lies in its ability to get the most essential health information to mothers in need quickly and easily using a technology they regularly use. Over 85% of Americans own a cell phone and 72% of cell users send or receive text messages.

*The Early Childhood Advisory Council and Kansas Project LAUNCH are seeking Kansas communities interested in creating public awareness about text4baby, with the goal of increased enrollment. Minigrants of up to \$1,000 are available (one application per community). These funds could be used to purchase local radio or television PSAs, movie advertisements, flyers, pens, buttons, onesies, bibs, or other promotional materials. Participants could host a community baby shower or health fair, where funds could be used to purchase door prizes and giveaways! With your help, Kansas could win the 2013 national Text4baby State Enrollment Contest.

To be eligible for funding, the organization applying must agree to the following:

- begin the text4baby campaign in the target community within 30 days of award
- become a text4baby partner in order to access free promotional materials
- promote text4baby in OB/Gyn and other health care settings in the target community
- provide follow-up information as needed and work with evaluation team members
- complete the brief application (see below) and submit to Cristi Cain via e-mail at ccain@ku.edu (contact Cristi to set up other arrangements if you are unable to submit the application electronically)

The deadline for submission of applications is **Friday, June 21st at 5:00 p.m.** Applications should be no longer than two pages in length.

Contact Cristi Cain via e-mail at ccain@ku.edu or by phone at 785-864-9639 with any questions or for additional information. For more information about the campaign, visit <https://text4baby.org/>. We appreciate your interest in this important project!

Target Community Geary County's underserved pregnant women

Applicant Organization Geary County Health Department

Organization Contact Person Barbara Berry, Director of Nursing

Address 1212 West Ash Street; P.O. Box 282

City Junction City **Zip Code** 66441

Phone Number 785 762-3303

E-mail Address bberry@gcphd.org

Provide brief demographics for your community (e.g. % low income, ethnicity distribution, etc.)

Geary County is a semi-urban area with a population of 38,013 per US Census 2012; with the following demographics: White 60.2%, Black 18.4%, Hispanic 13.1%, Native American 1.2%, Asian 3.4%, and Pacific Islander .8%. According to the census, about 12.5% of Geary County's population is below poverty, and KDHE reports that about 80% of the population is uninsured or underinsured. The Kansas Blue Ribbon Panel on Infant Mortality conducted a statewide evaluation and identified Geary County as one of Kansas' communities with the combination of high infant mortality rates and a significant birth numbers. Due to the county's significant Hispanic population, Spanish is the 2nd most frequently spoken language in Geary County, and the health department has bilingual staff.

Indicate the key community organizations/partners that will be involved in the campaign.

The following are Geary County Health Department partners in improving infant health, and will assist in promoting text4baby:

Geary County Perinatal Association with the following members:

- Flint Hills OB/GYN Clinic
- Ft. Riley Public Health
- Geary Community Healthcare Foundation
- Geary Community Hospital & Clinics
- Irwin Army Community Hospital
- Geary County Health Department
- Konza Prairie Community Health & Dental Center
- Kansas Department of Health and Environment
- March of Dimes
- USD 475 Geary County Schools

Geary County Fetal Infant Mortality Review Board (FIMR)

Geary County Breast Feeding Coalition (with over 70 members)

Kansas Department for Children and Families (Geary County office)

Community churches; health clinics; grass roots organizations, and businesses

How many pregnant women and new mothers do you anticipate will sign up for text4baby in your community?

Our goal is to sign up 500 or more women under the Geary County text4baby initiative. Geary County typically has the highest or among the highest birth rates in Kansas; with about 1400 infants born at the Geary Community and Ft Riley Hospitals annually. About 700 of these pregnant women receive services annually through the health department's Maternal Child Health (MCH) nurse who case manages pregnant women; and the health department's Women Infant Children (WIC) Program.

What strategies do you plan to use to increase awareness about text4baby in your community?

1) The Text4baby Committee will plan a press event in the community to announce the Geary County text4baby initiative with the following action steps • Invite an elected or government official to attend along with other community partners • Send out a press release about how text4baby will make a difference for moms • Provide a presentation about how the text4baby service answers mom's questions and provides valuable information. 2) The breastfeeding peer counselor and Maternal Child Health Nurse will help participants enroll in text4baby directly at the health department and show moms how to utilize appointment reminders. 3) WIC will also provide flyers and promote the services. 4) Staff will post text4baby promotional flyers in doctor's offices and throughout the community: businesses, hair salons, restaurants, waiting rooms. 5) The health department staff will be trained and knowledgeable about text4baby; and will be able to explain services to clients. 6) The IT staff will add the text4baby web enrollment button to the health department's website, and promote the service on the health department's face book page. 7) Staff members will remind text4baby moms about the appointment reminder service and to arrange transportation through Kan Care. 8) The health department will have a text4baby promotional "baby shower" for pregnant moms with cake, small gifts, fun activities, and staff to help them sign up for text4baby. 9) Health department staff routinely call pregnant moms in the health department's database to promote pre-natal classes, will also promote text4baby. Staff will help moms through the on-line registration by phone; or invite them into the health department for face-to-face assistance. 10) Prenatal class instructors will promote Text4baby in prenatal classes.

How would the text4baby mini-grant funding benefit your community?

The text4baby mini-grant will assist in the health department's initiative and community collaborative to lower infant mortality in Geary County. From the years 2007-2011, Geary County had an infant mortality rate of 9.9 in comparison to the Kansas rate of 7 for the same period. Equally challenging during this period was the considerable rate of 17.6 for mothers who smoked during pregnancy. Text4baby will provide an excellent user friendly method to send consistent and repeated messages to promote maternal and infant health such as smoking cessation; early prenatal care, and keeping prenatal appointments.

If funded, we agree to:

- x begin the text4baby campaign in our community within 30 days of award
- x become a text4baby partner in order to access free promotional materials
- x promote text4baby in OB/Gyn and other health care settings in our community
- x provide follow-up information as needed and work with evaluation team members

Barbara Berry

From: Cain, Cristi [ccain@ku.edu]
Sent: Thursday, July 11, 2013 10:52 AM
To: bberry@gcphd.org
Subject: text4baby minigrant
Attachments: W-9 Form 2013.pdf

Importance: High

July 11, 2013

Barbara Berry
Geary County Health Department
1212 West Ash St.
Junction City, KS 66441

Congratulations! The University of Kansas Center for Public Partnerships and Research (KU-CPPR) is pleased to award a minigrant in the amount of \$1000.00 to Geary County Health Department for the text4baby public awareness project as proposed by Barbara Berry.

Funding for the text4baby public awareness project is provided by the Early Childhood Advisory Council (ECAC) and administered through KU-CPPR. Text4baby, an educational program of the National Healthy Mothers Healthy Babies Coalition, provides pregnant women and new moms information to help them care for their health and give their babies the best possible start in life. With your assistance, we can increase the number of Kansas women who enroll.

The terms of the minigrant are as follows:

Project activities and acceptance

Geary County Health Department will:

- begin the text4baby campaign as described in the application submitted by Barbara Berry in the target community within 30 days of receipt of funds
- participate in a short webinar which will provide further information about the campaign on either July 26th at 2:00 p.m. <https://www4.gotomeeting.com/register/474348079> or July 29th at 11:00 a.m. <https://www4.gotomeeting.com/register/965137967>
- become a text4baby partner in order to access free promotional materials by going to <http://my.text4baby.org/page/s/formal-partner-sign-up>
- promote text4baby in OB/Gyn and other health care settings in the target community

No significant changes to the project shall be made without first seeking the approval of KU-CPPR.

Award payment: Geary County Health Department will receive \$1000.00 to be used as described in your application. In order to process the payment, please send a completed W-9 (see attached) to the attention of Cristi Cain, ccain@ku.edu. Please complete the W-9 form, sign it, scan it, save it, and return it via e-mail. In your e-mail, please include the mailing address and name of the person to whom the check should be sent.

Reporting and documentation:

- You must submit a brief final report by December 31, 2013. An online form will be provided.
- You are encouraged to document your project activities with photos, video clips, and scanned copies of media coverage when possible.

Congratulations on being a Kansas text4baby minigrant recipient! We look forward to working with you and hearing about your successes.

Sincerely,

Janine Gracy, ECAC Director
and
Cristi Cain
Project Coordinator, Center for Public Partnerships and Research
University of Kansas
1122 West Campus Road #624
Lawrence, KS 66045
785-864-9639
ccain@ku.edu

Appendix B - Text4baby Awareness Promotion







The Daily Union. Tuesday, July 23, 2013

Mini-Grant awarded for local texting project

**SPECIAL TO THE
DAILY UNION**

m.editor@thedailyunion.net

The Geary County Health Department recently awarded a mini-grant to support a local project promoting text4baby.

This new award will assist the local health department in promoting expecting and new mom's participation in the free education service designed to help parents through the baby's first year.

"If you are pregnant or have a baby under one year, you can sign up for free text messages sent directly to your cell phone through text4baby," officials stated in a news release. "Three messages

are sent each week and are timed to your due date or baby's birthday."

Messages start in pregnancy and go through the baby's first year. Tips provided include prenatal and infant care, immunization, postpartum depression, nutrition, oral health, abandoning smoking and safety.

The educational program of the National Healthy Mothers Healthy Babies Coalition, provides pregnant women and new moms information to help them care for their health and give their babies the best possible start in life.

Text4baby protects your privacy. Information collected at sign up only is used to send text messages

and information is not sold or shared with anyone for any commercial purpose.

The Health Department is partnering with the Geary County Perinatal Association, Geary County Breastfeeding Coalition, Flint Hills OB/GYN, Geary Community Healthcare Foundation and other community stakeholders for this project.

The University of Kansas Center for Public Partnerships and Research (KU-CPPR) awarded the minigrant and funding for the text4baby public awareness project is provided by the Early Childhood Advisory Council (ECAC) and administered through KU-CPPR.

Figure 4 News Release

Appendix D - Hepatitis C Reporting Form



Hepatitis C virus, past or present Supplemental Reporting Form

INTERVIEW

EpiTrax # _____ Interviewer Name: _____

Number of Call Attempts: _____ Follow-up Status: Interviewed Refused Interview Lost to Follow-Up*

Date of Interview (must enter MM/DD/YYYY): _____

*At least three attempts at different times of the day should be made before the considered lost to follow-up.

Respondent was: Self Parent Spouse Other, Specify: _____

DEMOGRAPHICS

County: _____ Birth Gender: Male Female Date of Birth: _____ Age: _____

Hispanic/Latino Origin: Yes No Unknown

Race: White Black/African American American Indian/Alaska Native Asian Native Hawaiian/Other Pacific Islander
 Other _____ Unknown

CLINICAL

What date did you start to have symptoms of illness? Onset Date: _____

Date diagnosed: _____

Were you hospitalized? Yes No Unknown Were you hospitalized for hepatitis? Yes No Unknown

Hospital Name: _____ Total Days Hospitalized: _____

Admit Date: _____ Discharge Date: _____

Died? Yes No Unknown If Yes, Date of Death: _____ Died of hepatitis? Yes No Unknown

EPIDEMIOLOGICAL

Occupation: _____

Health care worker?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<ul style="list-style-type: none"> Does position involve direct contact with human blood? Frequency of direct blood contact Specify health field: 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Frequent <input type="checkbox"/> Infrequent <input type="checkbox"/> Unknown
Public safety officer?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<ul style="list-style-type: none"> Does position involve direct contact with human blood? Frequency of direct blood contact Specify employment field: 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Frequent <input type="checkbox"/> Infrequent <input type="checkbox"/> Unknown
Correctional facility?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<ul style="list-style-type: none"> Association Does position involve direct contact with human blood? Frequency of direct blood contact 	<input type="checkbox"/> Employee <input type="checkbox"/> Incarcerated <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Frequent <input type="checkbox"/> Infrequent <input type="checkbox"/> Unknown
Group living?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Day care association?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown

Figure 5 Hepatitis C Reporting Form

If yes to any, list details for each below:

Facility Name(s):	
Address(es):	
Phone Number(s):	

If yes to any above, did you work or attend while ill? Yes No Unknown

If Yes, Dates Worked or Attended/Notes:

INVESTIGATION

A. Symptoms & Signs

Reasons for testing (check all that apply):	<input type="checkbox"/> Symptoms of acute hepatitis <input type="checkbox"/> Screening of asymptomatic patient with reported risk factors <input type="checkbox"/> Screening of asymptomatic patient with no risk factors (e.g. patient requested) <input type="checkbox"/> Prenatal screening <input type="checkbox"/> Evaluation of elevated liver enzymes <input type="checkbox"/> Blood/organ donor screening <input type="checkbox"/> Follow-up testing for previous marker of viral hepatitis <input type="checkbox"/> Unknown <input type="checkbox"/> Other (specify): _____
Are you symptomatic?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
• Dark urine?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
• Diarrhea?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
• Anorexia?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
• Abdominal pain?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
• Clay stools?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
• Fatigue?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
• Other symptoms? ○ If yes, specify:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown _____

Figure 6 Hepatitis C Reporting Form

B. Liver Enzymes Levels at Diagnosis

ALT [SGPT] Result	ALT upper limit normal	Date of ALT result
AST [SGOT] Result	AST upper limit normal	Date of AST result

C. Exposure—Risk Factors

These questions pertain to the time period 2 weeks to 6 months prior to onset of symptoms.

<p>Are you a contact of a person with a confirmed or suspected acute or chronic hepatitis C virus infection?</p> <ul style="list-style-type: none"> If yes, type of contact 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Sexual <input type="checkbox"/> Household <input type="checkbox"/> Unknown Other, specify: _____
<p>What is your sexual preference?</p> <p>How many male sex partners have you had?</p> <p>How many female sex partners have you had?</p>	<input type="checkbox"/> Heterosexual <input type="checkbox"/> Homosexual <input type="checkbox"/> Bisexual <input type="checkbox"/> Unknown <input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2-5 <input type="checkbox"/> >5 <input type="checkbox"/> Unknown <input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2-5 <input type="checkbox"/> >5 <input type="checkbox"/> Unknown
<p>Have you ever injected drugs not prescribed by a doctor even if only once or a few times??</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<p>Did you ever use drugs not prescribed by a doctor, but not injected, even if only once or a few times??</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<p>Did you receive a tattoo?</p> <ul style="list-style-type: none"> If yes, where was the tattooing performed? 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Commercial parlor/shop <input type="checkbox"/> Correctional facility <input type="checkbox"/> Private residence <input type="checkbox"/> Other (specify):
<p>Did you have any part of your body pierced (other than ear)?</p> <ul style="list-style-type: none"> If yes, where was the piercing performed? 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Commercial parlor/shop <input type="checkbox"/> Correctional facility <input type="checkbox"/> Private residence <input type="checkbox"/> Other (specify):
<p>Did you have acupuncture?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<p>Did you receive a blood transfusion prior to 1992?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<p>Did you receive an organ transplant prior to 1992?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<p>Did you receive clotting factor concentrates produced prior to 1987?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
<p>Were you ever on long-term hemodialysis?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown

Figure 7 Hepatitis C Reporting Form

Appendix E - STI Prevention Sample Messages

SAMPLE MESSAGES FOR PREVENTION OF SEXUALLY TRANSMITTED INFECTIONS (STIs)

- STIs can prevent you and your partner from having a baby. Call the Geary County Health Department at (785) 762-5788 for more information
- Sexually transmitted infections (STIs) can increase the risk of getting HIV. Visit the Geary County Health Department website @ <http://www.gchd.org> for more information
- Did you know that you can be re-infected with STI if you do not use protection? Call the Geary County Health Department at (785) 762-5788 for more information
- Get tested at the Geary County Health Department to know your STI and HIV status. Call (785) 762-5788 for clinic hours
- Talk to your partner about practicing safer sex
- Did you know that STIs can cause cancer? Visit the Geary County Health Department website @ <http://www.gchd.org> for more information
- Unprotected sex can lead to unintended pregnancy and STIs
- Get STI and HIV counseling at the Geary County Health Department. Call (785) 762-5788 to set up an appointment
- Limit the number of sexual partners
- Always use condoms to lower your chance of getting STI
- Use condoms correctly to reduce the spread of STIs
- Did you know that young people are more likely to come into contact with someone who has STI? Visit the Geary County Health Department website @ <http://www.gchd.org> for more information

- Sex without a condom increases the risk of getting an STI or passing it onto someone else

MENSAJES DE MUESTRA PARA LA PREVENCIÓN DE LAS INFECCIONES DE TRANSMISIÓN

SEXUAL

- Las ITS pueden evitar que usted y su pareja de tener un bebé. Llame al Condado al Departamento Geary Salud (785) 762-5788 para obtener más información
- Infecciones de transmisión sexual (ITS) pueden aumentar el riesgo de contraer el VIH. Visite el sitio web del Departamento de Salud del Condado Geary @ <http://www.gchd.org> para más información
- ¿Sabía que usted puede ser re-infectado con ITS si no se utiliza protección? Llame al Condado al Departamento Geary Salud (785) 762-5788 para obtener más información
- Hágase la prueba en el Departamento de Salud del Condado de Geary para conocer su estado de VIH y las ITS. Llame (785) 762-5788 para los horarios de la clínica
- Hable con su pareja acerca de la práctica de sexo más seguro
- ¿Sabía usted que las ITS pueden causar cáncer? Visite el sitio web del Departamento de Salud del Condado Geary @ <http://www.gchd.org> para más información
- El sexo sin protección puede conducir a embarazos no deseados y infecciones de transmisión sexual
- Obtener asesoramiento de ITS y VIH en el Departamento de Salud del Condado de Geary. Llame (785) 762-5788 para hacer una cita
- Limite el número de parejas sexuales
- Siempre use condón para disminuir la posibilidad de contagio de infecciones de transmisión sexual
- Use condones de manera correcta para reducir la propagación de las ITS

- ¿Sabía usted que los jóvenes son más propensos a entrar en contacto con alguien que tenga STI?
- Visite el sitio web del Departamento de Salud del Condado Geary @ <http://www.gchd.org> para más información
- Sexo sin condón aumenta el riesgo de contraer una ITS o pasarlo a otra persona

Appendix F - Kansas Chlamydia and Gonorrhea Rates by County: January-December 2011

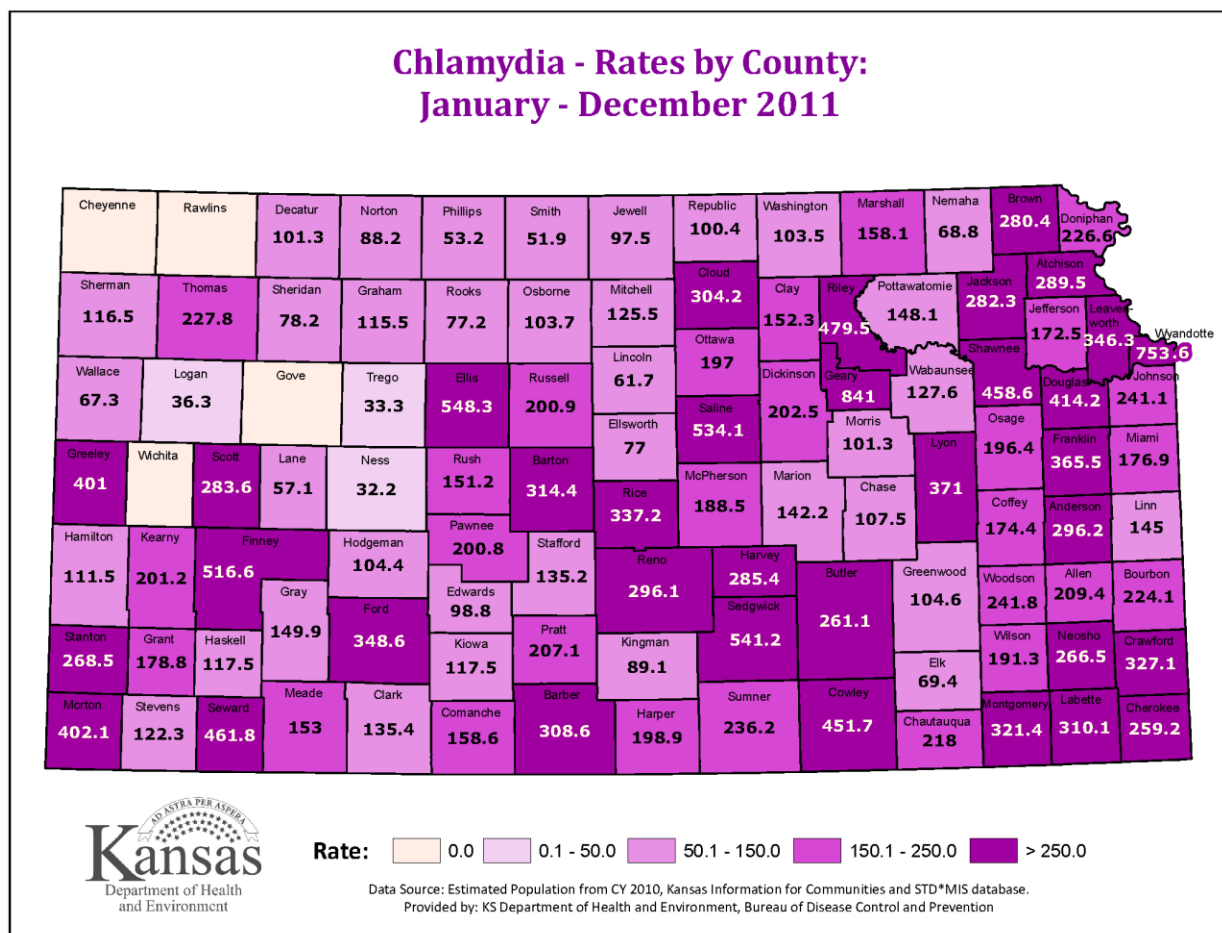
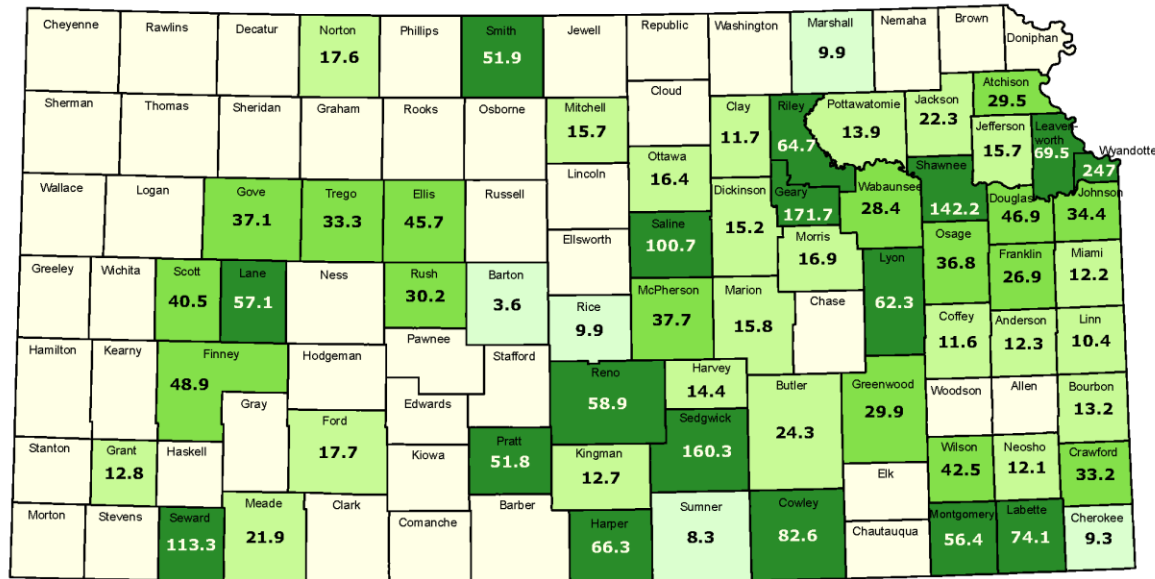


Figure 8 State of Kansas: Chlamydia Rates by County

Gonorrhea - Rates by County: January - December 2011



Rate: 0 < 10.0 10.1 - 25.0 25.1 - 50.0 > 50.0

Data Source: Estimated Population from CY 2010, Kansas Information for Communities and STD*MIS database.
 Provided by: KS Department of Health and Environment, Bureau of Disease Control and Prevention

Figure 9 State of Kansas: Gonorrhea Rates by County