

# Field Experience with the Geary County Health Department (GCHD)

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# Outline

- Overview of GCHD
- Learning objectives
- Field experience projects
  - Text4baby awareness program
  - Message development for sexually transmitted infections (STI) prevention
  - Disease investigation
- Experiences and academic application
- Conclusion and recommendations

# Geary County Health Department



# Background



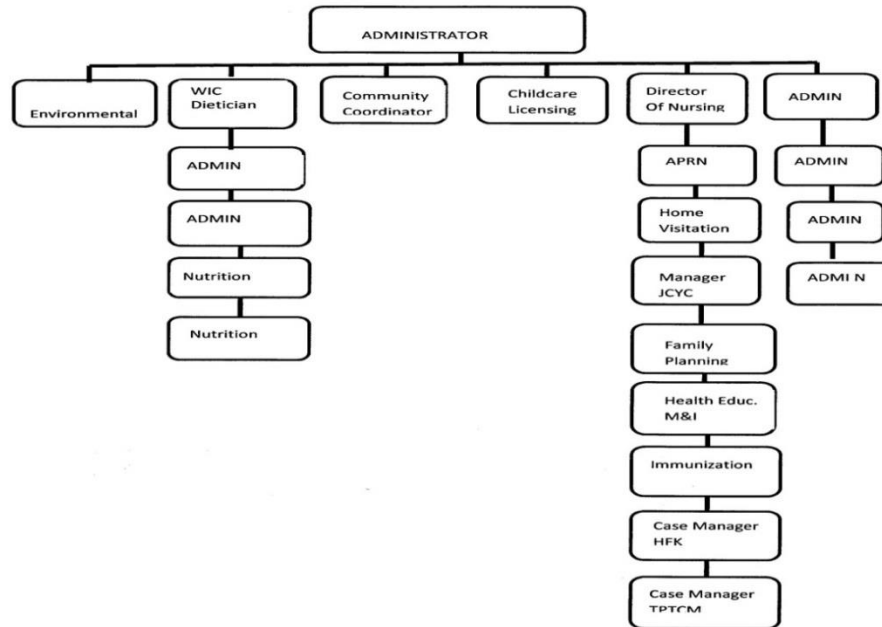
- The GCHD has been serving the Junction City-Geary County and the Fort Riley areas since 1949

# Mission statement

- GCHD seeks to improve public health, promote community well-being, prevent disease, and protect the community from public health hazards

# Organizational chart

Source: GCHD Supervisory Chart, 2013



# Services provided

- Environmental
- Childcare Licensing
- WIC
- Clinical Services
  - Family Planning
  - STD/HIV/AIDs testing
  - Immunization
  - Healthy Start Home visits
  - Junction City Youth Clinic
  - **Maternal Child Health**
  - Paternity Testing
  - Physicals
  - TB testing
- Health Education

# Learning Objectives

- 5 learning objectives were identified
  - use problem-solving skills to address complex public health problems
  - communicate public health ideas to a target population in written and verbal format
  - Demonstrate leadership in public health setting
  - 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
  - Create messages that positively influence outcomes



# Text4baby

- Designed to promote maternal and child health through text messaging
- Supported and promoted by a public-private partnership of over 1000 health departments, academic institutions, health plans, businesses, and the federal government
- Launched February 4, 2010

# Why was text4baby developed?

- The U.S. has one of the highest infant mortality rate among industrialized nations
- 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 include poverty, oppression, lack of access to health care and lack of information about better health

# How it works

- Women who text **BABY** (or **BEBE** for Spanish) to **511411** receive three free text messages a week, timed to their due date or their baby's birth date, through pregnancy and up until the baby's first birthday
- The messages address topics such as labor signs and symptoms, prenatal care, urgent alerts, developmental milestones, immunizations, nutrition, birth defect prevention, safe sleep, safety
- Text **STOP** to discontinue messages or **HELP** for help at any time

-text4baby.org



For free info for  
you and your baby

Text **BABY**  
to **511411**



text4baby

# Sample messages

## Pregnancy

- Free t4b msg: Morning sickness may be caused by a change in your hormones. Try eating crackers or dry cereal. Eat small meals often. Don't go without eating
- Free msg: Have you visited a Dr. or midwife? If not, make an appointment now. Call your health plan. Or 800-311-2229 to connect to low-cost care

-text4baby.org

## New Baby

- Free msg: It's time for baby's 1-month Dr.'s visit. Your baby had blood tests right after she was born. At this visit, ask your Dr. for the results
- Free msg: Not sure if your car seat is installed right? Get it inspected. Department of Transportation can help. Call 888-327-4236 for locations near you

-text4baby.org

# Promotional materials



For free info for  
you and your baby  
Text **BABY**  
to **511411**



text4baby™  
A free service of the  
National Healthy Mothers, Healthy Babies Coalition



text4baby™  
A free service of the  
National Healthy Mothers, Healthy Babies Coalition



Healthy Mom = Healthy Baby



Envía **BEBE**  
al **511411**



text4baby™  
A free service of the  
National Healthy Mothers, Healthy Babies Coalition



Consejos para  
mamás y  
futuras mamás



text4baby™

Recibe mensajes de texto gratis acerca de:

- El cuidado antes del parto
- La salud del bebé
- Crianza de los hijos y más

Regístrate ahora



Tips 4 Mom  
and Mom 2B



text4baby™

Get FREE text messages on:

- Prenatal Care
- Baby Health
- Parenting & More!

Sign Up Now



text4baby™  
A free service of the  
National Healthy Mothers, Healthy Babies Coalition

text4baby.org

Envía **BEBE**  
al **511411**

recibe mensajes **GRATIS**  
en tu teléfono que te  
ofrecerán ayuda durante  
tu embarazo y el primer  
año de tu bebé.

# Benefits of text4baby

- Sends important and timely health information directly to mothers in short, text length messages
- Gives reminders about doctor visits and immunizations
- Messages are customized based on the mother's pregnancy timeline
- Research has shown timely health information leads to improved health for mothers and babies

# Geary County Text4baby Awareness Program

**HEY MOM,  
It's 4U!**



Text **BABY** to **511411**

Get **FREE** tips on your cell phone to help you through your pregnancy and your baby's first year.



Powered by **VOXIVA**

Text4baby is a program of the National Healthy Mothers, Healthy Babies Coalition.

[text4baby.org](http://text4baby.org)

# Geary County Text4baby Awareness Program

- The Early Childhood Advisory Council (ECAC) and Kansas Project LAUNCH were seeking for Kansas communities interested in creating public awareness about text4baby to apply for a mini-grant of up to \$1,000
- GCHD applied and was awarded the mini-grant on 7/11/13 by the University of Kansas Center for Public Partnership and Research (KU-CPPR)
- Campaign to begin within 30 days of award
- Final report to be submitted December 31, 2013



# Background

- The United States has an infant mortality rate of 6.5 per 1,000 live births (Whittaker et al., 2012)
- Kansas has an infant mortality rate of 7.0 per 1,000 live births (KDHE, 2012)
- Geary County's infant mortality rate is 9.9 per 1,000 live births (KDHE, 2012)
- GCHD staff seek to decrease infant mortality rate in Geary County through the text4baby awareness program (GCHD, 2013)

# Program plan

- Goal: to decrease Geary County's infant mortality rate
- Objectives
  - Increase awareness about text4baby
  - Increase the number of women who enroll by 500
  - Increase the number of mothers who will access information about text4baby
  - Increase the number of women who will take the recommended action

# Program plan contd.

- Strategy: promote awareness with press event (health fair) in the community
- Tactics
  - Collaborate with agency partners
  - Send out press release
  - Provide presentations
  - Explain services to clients
  - Promote text4baby during prenatal classes

# Geary County text4baby awareness promotion



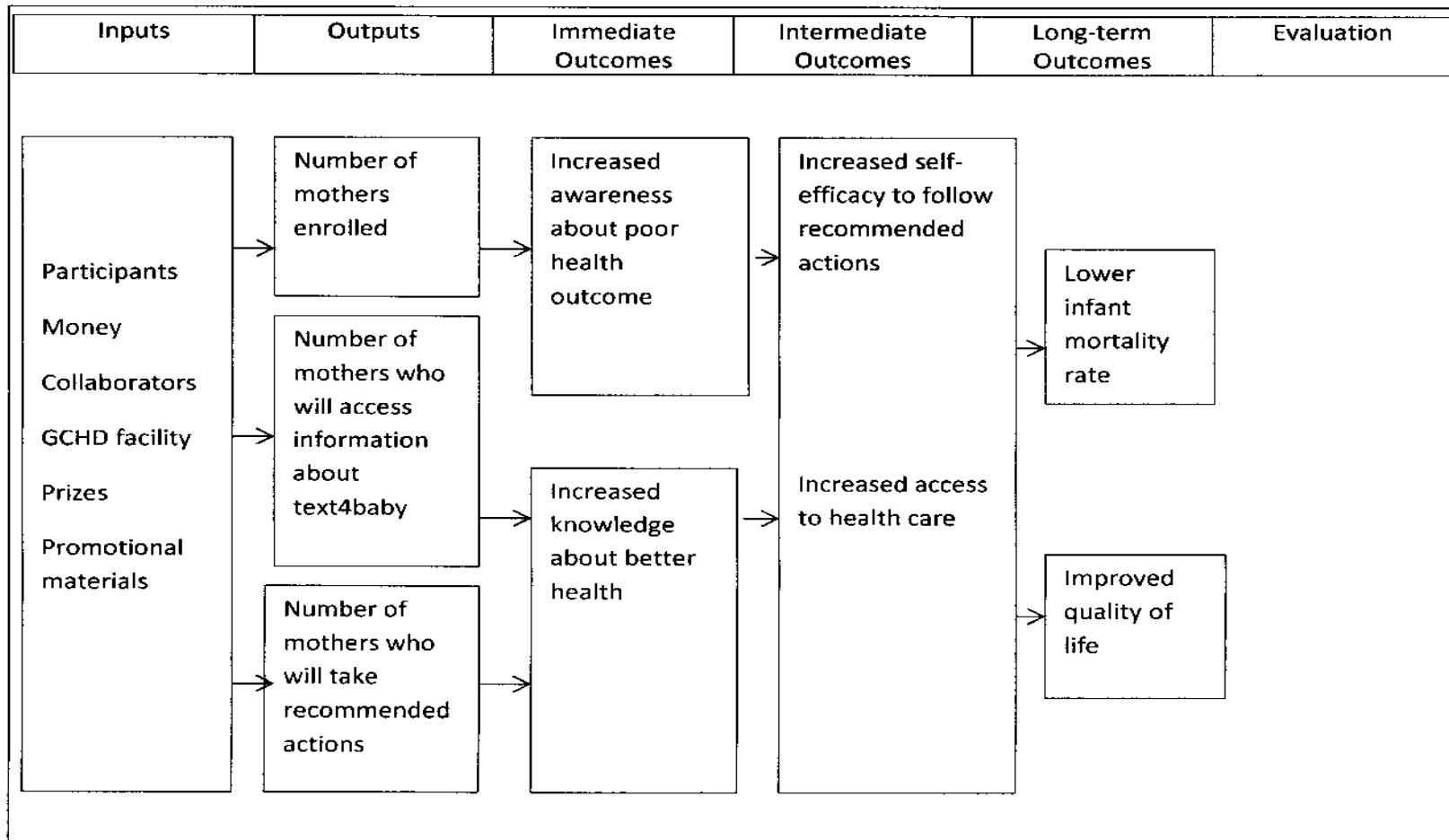
# Implementation timeline

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

# Logic model for a program to decrease infant mortality rate

Source: adapted from McKenzie et al, 2012



# Logic model

- Program resources (inputs) are converted into program outputs
- Outputs in turn produce intended results (outcomes)

# Evaluation

- Evaluation will be conducted by the Early Childhood Coalition Council
- Previous text4baby evaluation 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 mothers and babies: Including immunizations, nutrition, seasonal flu, mental health, smoking & 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
- Ensuring that mothers are connected to health knowledge and services as early as possible. Catching problems early can help avoid expensive and harmful complications at birth and in the first year of life

# Message development for sexually transmitted infections (STIs) prevention

- About 19 million new infections occur each year in the U.S. (U.S. Department of Health and Human Services, 2009)
- Geary County had highest rate of chlamydia and second highest rate of gonorrhea in Kansas in 2011 (KDHE, 2011)
- GCHD staff plan to use mobile phones to send text messages about STI prevention to their clients (GCHD, 2013)

# Message development

- Messages need to be:
  - Concise and to the point
  - Relevant
  - Consistent
  - Easy to remember

-Shiavo, 2007, p. 317

# Sample messages

- 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
- 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

# Disease investigation

- Understand patterns that exist in occurrence of different diseases
- Helps epidemiologists find out how to control a current out break and to prevent further out break of a disease
- Communicable diseases investigated by GCHD include hepatitis b and c, tuberculosis, and some zoonotic diseases

# Disease investigation process

- Cases sent electronically by KDHE epidemiologist to the GCHD disease investigator
- Investigator contacts the physician who ordered testing to confirm diagnosis and determine reason for testing
- Investigator asks if case is aware of diagnosis, and if case is receiving treatment, or if has been referred to a specialist

# Investigation process contd.

- Investigator collects case's demographic data and contact information (birthdate, sex, race/ethnicity, occupation, phone number)
- Investigator contacts case and asks questions included in the disease investigation guideline depending on the disease being investigated
- Investigator then closes case and reports the information via the Kansas electronic surveillance system

# Hepatitis C reporting form

## 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 _____



# Hepatitis C reporting form

## 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"> <li>If yes, type of contact</li> </ul>	<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"> <li>If yes, where was the tattooing performed?</li> </ul>	<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"> <li>If yes, where was the piercing performed?</li> </ul>	<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

# Experiences and academic applications

- Attended internal meetings and meetings with collaborative partners
- Assisted with the implementation of a text4baby awareness campaign
- Developed messages that influence behavior of target groups
- Reviewed and understood the disease investigation process
- Shadowed disease investigator, WIC dietician, Healthy Start home visitor, and health educator during their day-to-day activities

# Experiences and academic applications contd.

- Delivered presentations about the text4baby awareness program
- Developed plans for the text4baby awareness program and the STI prevention programs
- Participated in a health fair
- Participated in a fire drill

# Experiences and academic application contd.

- Attending meetings with collaborative partners gave me the opportunity to see the importance of sharing public health ideas
- Knowledge of program planning, implementation/evaluation was utilized in developing plans for the text4baby awareness program and the STI prevention program
- strategic health communication was utilized in the STI prevention project
- Epidemiologic principles and the concept of risk was utilized in disease investigation
- The concept of how behavior relates to health outcome was utilized in the STI prevention project through the interventions of health communication 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

# Conclusion

- The field experience has provided me the opportunity to apply the knowledge and skills learnt in the classroom into practice
- Relevant courses included epidemiology, fundamental methods of biostatistics, administration of health care 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

# Recommendations for GCHD

- Develop data collection system to identify STI risk factors and geographic distribution of these STIs in Geary County.
- Send out a survey to target population to see if it is okay for them to be contacted via text messaging
- 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.
- Develop a plan outlining specific actions and measurable outcomes.
- Evaluate intervention to determine success of the program

# Recommendations for GCHD contd.

- 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
- 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

# Acknowledgements

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  - Pat Hunter, GCHD Administrator for giving me the opportunity to pursue my field experience at the GCHD
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  - Barta, Stevenson MPH program assistant for her guidance
  - My husband Dr. Cesar Guvele, for his encouragement and support



The end!



QUESTIONS?

# References

- Geary County Health Department, 2013, from <http://gcphd.org>
- Kansas Department of Health and Environment. (2012). Kansas Information for Communities, 2013, from <http://kic.kdhe.state.ks.us/kic/index.html>
- McKenzie, J. F., Neiger, B. L., & Thackeray, R. (2012). *Planning, implementing, and evaluating health promotion programs: A primer*. (pp. 166-219)
- Muturi Nancy W. (2005). Communication for HIV/AIDS Prevention in Kenya: Social-Cultural Considerations, *Journal of Health Communication*, 10: 1, 77-98
- Schiavo, R. (2007). *Health communication: From theory to practice* Jossey-Bass.
- Whittaker, R., Matoff-Stepp, S., Meehan, J., Kendrick, J., Jordan, E., Stange, P., et al. (2012). Text4baby: Development and implementation of a national text messaging health information service. *American Journal of Public Health*, 102(12), 2207-2213.
- Text4baby. Retrieved 7/31/13 from <https://www.text4baby.org/index.php/about>