# Morris Lyon Chase Coffey Greenwood

## **MLC-2 IN KANSAS**

Sexually Transmitted Infections

Quality Improvement Project

(Storyboard: May 2007–February 2008)



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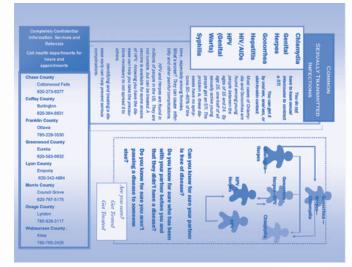
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# Snapshot Results of this Quality Improvement Project

As part of a public information campaign, the team designed and distributed this regional brochure about the importance of being tested for sexually transmitted infections.







### THE SITUATION

Sexually Transmitted Infections (STIs) are a significant health problem because of their impact on maternal and child health. STIs are associated with a number of adverse pregnancy outcomes including stillbirth, premature birth, and low birth weight. Premature birth and low birth weight are major determinants of infant morbidity.

STIs are prevalent across Kansas. One of the cornerstones of STI control is adequate case management of patients with STIs. This includes diagnosis, treatment and individual health education and counseling on disease prevention and partner notification.

In order to understand the epidemiology of STIs in the community and to improve STI services in the region, the East Central Kansas Public Health Coalition (ECKPHC) conducted a six month pilot project targeting uniform STI testing and treatment services. All Maternal and Child Health (MCH) program qualified clients were targeted for the pilot project.

The project team initially planned to monitor and improve the percentage of women who receive timely prenatal care within the region. However, after conducting the initial root cause analysis (Fishbone Diagram), the team realized there was a greater need to standardize STI testing and treatment services within the Maternal and Child Health program. By further utilizing Quality Improvement (QI) techniques such as Brainstorming, Affinity Diagram, 2 x 2 Table, and Six Thinking Hats, the team discovered that only two of the eight county health departments in the region promoted and screened for STIs outside of family planning and included the male population. The team also discovered that the lack of information and the absence of local STI prevention programs contributed to the number of STI cases in the region.

# Sexually Transmitted Infections QI Team Members:

Midge Ransom: Regional Coordinator

### **QI County Leaders:**

Cheryl Jones: Chase County
Lindsay Payer: Coffey County
Evonna James: Franklin County
Deina Rockhill: Greenwood County
Lougene Marsh: Lyon County
Ashley Hinkson: Morris County
Meredith Knowles: Osage County
Janet Wertzberger: Wabaunsee County







### STEP 1: DESCRIBE THE PROBLEM

### **Original problem statement:**

Local health departments have limited training and time to conduct community assessments. The low percentage of pregnant women who receive prenatal care is of particular concern.

### Reason selected:

The Essential Public Health Services, developed by the Centers for Disease Control and Prevention (CDC), are ten public health activities that should be undertaken in all communities. The first essential service directs public health departments to monitor health status to identify and solve community health problems.

Local health department administrators in the ECKPHC region said it was difficult to monitor health issues regionally within the MCH program because there was a lack of local needs assessments and other community data. Therefore, the ECKPHC team decided to provide training to public health departments on instrument development and data interpretation that would allow them to better monitor regional health. The team initially decided to focus their efforts on improving their ability to monitor and assess community health relative to the MCH program and, more specifically, regarding prenatal care.

### **Milestones:**

- Completed first working/learning session with a two-day QI workshop held in March 2007
- All eight departments shared a summary of the MCH services they provide and these were grouped into "Core Services" and "Additional Services"
- Team brainstormed local MCH issues and problems

# The Essential Public Health Services

- Monitor health status to identify and solve community health problems.
- 2. Diagnose and investigate health problems and health hazards in the community.
- 3. Inform, educate, and empower people about health issues.
- 4. Mobilize community partnerships and action to identify and solve health problems.
- Develop policies and plans that support individual and community health efforts.
- 6. Enforce laws and regulations that protect health and ensure safety.
- 7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
- 8. Assure competent public and personal health care workforce.
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
- Research for new insights and innovative solutions to health problems.

Source: CDC website http://www.cdc.gov/od/ocphp/ nphpsp/EssentialPHServices.htm



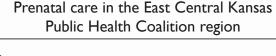


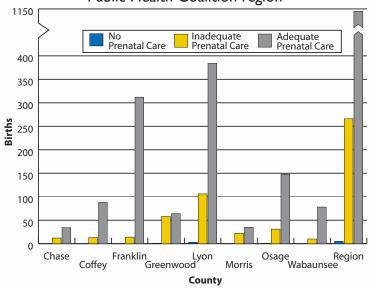


### STEP 2: IDENTIFY ROOT CAUSE(S) OF THE PROBLEM

### **Original problem statement:**

Local health departments have limited training and time to conduct community assessments. The low percentage of pregnant women who receive prenatal care is of particular concern.





### **Analyze the causes:**

The initial root cause analysis brought another important issue to the team's attention. The analysis indicated that Sexually Transmitted Infection (STI) testing and treatment services provided within the region lacked uniformity. The team, therefore, decided to shift their focus to improving STI services within the region. This is an example of how the use of QI tools, such as the Fishbone Diagram, can help redefine a problem statement.

### Root causes of inconsistent STI testing in the East Central region:

- Local health department (LHD) staff members were unaware of state programs to assist with STI testing and treatment.
- LHD staff members lack sufficient level of training regarding performing STI testing and treatment.
- Information about STI testing is not readily available for the public.
- LHDs have not previously directed efforts to educate the public regarding the importance of STI testing and screening.
- The region does not have uniform printed materials about the STI testing and treatment.
- There is limited funding outside of family planning.





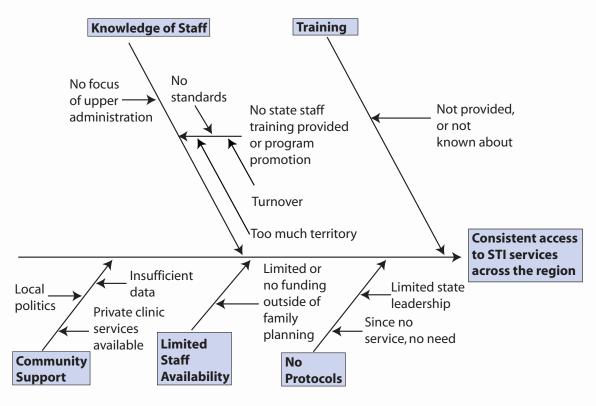


### **STEP 2: CONTINUED**

### New problem statement:

Sexually Transmitted Infection (STI) testing and treatment procedures are not provided uniformly throughout the region.

Cause and Effect ("Fishbone") Diagram: Root causes for nonuniform STI testing and treatment services in the East Central Kansas Public Health Coalition region



### **Milestones:**

 To improve STI testing and treatment services in the region, the ECKPHC team initially planned to address the following barriers: Insufficient STI data, lack of staff training, and limited funding for STI prevention services. "The Centers for Disease Control and Prevention (CDC) recommends screening all sexually active adolescents younger than 25 years of age for STIs."

— Source: CDC website

- 2. After conducting a root cause analysis
  (Fishbone Diagram) of the possible
  reasons for nonuniform STI testing and treatment services, the team found out that
  an overlapping issue in various categories was the lack of STI protocols.
- 3. Regional QI training was conducted.



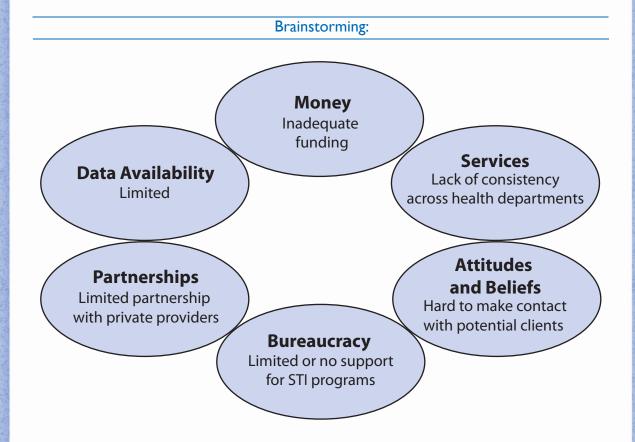




### **STEP 2: CONTINUED**

### Among the team's findings:

- STIs are prevalent across Kansas.
- STIs have a great impact on birth outcomes and fertility.
- Only two of the eight health departments in the region regularly screen for STIs.
- The region lacks quality and uniform services.
- STI testing and treatment protocols are different for each local health department.
- STI testing and screening is not done outside of the family planning program.
- STI testing and screening does not include the male population.



**QI tools used in this step:** Six Thinking Hats, Brainstorming, Right and Left Brain Thinking







### STEP 3: DEVELOP A SOLUTION AND ACTION PLAN

By incorporating several QI tools in the project — Fishbone Diagram, Brainstorming,  $2 \times 2$  Table, Affinity Diagram, Six Thinking Hats, and Right and Left Brain Thinking — the team explored the root causes of the lack of uniform STI testing and treatment services. They found multiple areas that could be improved, but decided to limit their focus to the area they felt was most important, which was the lack of STI protocols.

### **Milestones:**

- Accessed information and statistics about STI rates
- · Conducted regional training in four sessions:
  - Information was presented about KDHE STI and HIV program
  - Male STI exams
  - Female STI exams
  - Presentation by field staff on STIs and LHD practices
- Reviewed local and state protocols

### **Measures of project success:**

- 1. Increase access to STI services within the region
- 2. Develop a regional protocol and program brochure for STI testing and treatment
- 3. Establish a uniform basic level of STI testing and treatment in all eight health departments by January 1, 2009
- 4. Increase the number of STI tests provided in the region by local health departments by January 1, 2009
- 5. Increase the number of detected positive cases of Gonorrhea and Chlamydia in the region by January 1, 2009
- 6. Establish a data tracking system for STI incidents in the region
- 7. Increase awareness of the target population and the need to continue educating and promoting STI screening to this population
- 8. Increase collaboration between local health departments and private providers
- Learn and utilize QI techniques to strengthen the regional capacity for providing certain public health service functions that could not be easily provided by each individual local health department







### **STEP 4: IMPLEMENT THE SOLUTION**

The team's analysis of root causes led them to conclude that, rather than insufficient STI data, lack of staff training, and limited funding for STI prevention services, the lack of STI protocols was the most important factor in their region.

### In order to address this area of need, the team took the following steps:

- Step 1: Reviewed local and state STI investigation guidelines, protocols, forms, and documentation worksheets for STI testing and treatment
- Step 2: Adopted regional STI protocols for testing and treatment based on national and state guidelines and standards
- Step 3: Adopted regional STI examination form

Next, the team decided to focus on outreach activities to increase public awareness regarding the importance of STI testing and treatment.

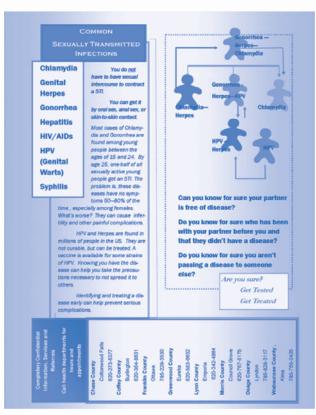
As part of the outreach strategy, the team designed and printed a brochure.

- The regional brochure included the following material:
  - Common STIs
  - Common signs and symptoms of STIs

### **Milestones:**

- Reviewed evidence and recommendations for decreasing STI rates in the region
- Identified locations suitable for outreach activities
- Developed a regional STI testing and screening protocol
- Adopted a regional STI examination form
- Designed and printed regional promotion brochure of STI testing and screening
- Distributed print campaign materials
- Planned public information campaign for local newspapers and radio stations

**QI tools used in this step:** Fishbone Diagram, Six Thinking Hats, Brainstorming, Right and Left Brain Thinking









# STEP 5: REVIEW AND EVALUATE RESULTS OF THE CHANGE

### **Results:**

- Established a uniform, basic level of STI testing and treatment in all eight health departments
- Developed a regional protocol and a regional program brochure for STI testing and treatment
- Equipped and trained all health departments to provide STI testing and treatment services as planned, beginning no later than January 1, 2008
- Increased collaboration between local health departments and private providers
- LHD staff members learned how to use QI techniques in order to strengthen the regional capacity for providing certain public health service functions that could not be easily provided by each individual local health department

### **Milestones:**

 Reviewed Fishbone Diagram on lack of STI protocols, and identified that most causes had been addressed by the team

"Accomplishing the regional uniformity with good collaboration demonstrated the feasibility and effectiveness of a regional approach to quality improvement and addressing standards."

 Midge Ransom, East Central regional coordinator

### **CDC** Guidelines

The prevention and control of STIs are based on the following five major strategies:

- Education and counseling of persons at risk on ways to avoid STIs through changes in sexual behaviors;
- Identification of asymptomatically infected persons and of symptomatic persons unlikely to seek diagnostic and treatment services;
- Effective diagnosis and treatment of infected persons;
- Evaluation, treatment, and counseling of sex partners of persons who are infected with an STI; and
- Preexposure vaccination of persons at risk for vaccinepreventable STI.

Source: CDC website







### STEP 6: REFLECT AND ACT ON LEARNINGS

### Some challenges identified by the team:

- Dedicating staff to full attendance at team meetings
- Insufficient time to complete quality improvement initiative within the project period
- Obtaining, handling and processing data to support QI efforts
  - Difficult to obtain timely data to use both in the planning (e.g., baseline) and checking (e.g., evaluation) stages
- "I learned that you don't have to have a lot of expensive equipment or extensive training to perform the STI testing. I believe that once the word gets out, clients will seek this service more readily and without hesitation..."
- East Central Kansas Public Health Region pilot project participant
- Data are scattered throughout multiple systems that have difficulty communicating with each other, and the information is often outdated and hard to abstract
- · Establishing a QI culture within the everyday work of public health practice
- Lack of information on evidence-based programs
- No connection between state and local practitioners

### **Lessons learned:**

The project greatly benefited the region as it facilitated an understanding of the existing quality improvement opportunities and helped local health departments learn how to identify the root causes of problems and successfully overcome barriers. As part of this project the team learned the following lessons:

- Adoption of quality improvement principles and processes in the public health system requires a cultural shift
- Additional practice and reinforcement are needed to become comfortable with QI tools and to utilize them routinely
- Additional technical assistance is needed to support the planning and implementation of quality improvement efforts
- Consistency in meeting attendance is critical to efficiently use time and understand the direction the group is moving
- The importance of QI training for project staff
- The critical role of the project coordinator
- Benefits to networking or opportunity to share experiences within the project team
- Training and technical assistance may need to be restructured to include more face-to-face opportunities





