Accreditation Preparation & Quality Improvement Demonstration Sites Project

Final Report

Prepared for NACCHO by the Tulsa City-County Health Department, OK

November 2008
Brief Summary Statement
The Tulsa City-County Health Department (THD) is located in north eastern Oklahoma, and serves an urban and rural population of almost 600,000. Using the NACCHO LHD Self-Assessment Tool for Accreditation Preparation and a quality improvement process, THD identified a need to develop a uniform approach to systematically incorporating quality improvement into the daily activities and planning for each program in the agency. To address this, the agency identified a consulting firm to help develop the infrastructure for a “Big QI” (Appendix B) and “Little QI” (Appendix C). Two separate QI trainings were conducted, one for the Executive Management Team (EMT) and the other for staff participating in QI projects. As a result, each division of the agency has staff that have participated in QI training and completed at least 2 cycles of the Plan-Do-Check-Act model.

Background
THD is a large city-county health department in north eastern Oklahoma. The local public health system is a hybrid of centralized state health departments, and two independent metro health departments. THD is a participating member of the Heartland Centers for Public Health & Community Capacity Development (Heartland Centers). Heartland Centers, located in St. Louis, MO, is one of fourteen public health and education training institutes based at accredited schools of public health across 45 states and funded by the U.S. Department of Health and Human Services (USDHHS), and the Health Resources and Services Administration (HRSA), Bureau of Health Professions (BHPR). In the spring of 2007, THD participated in the Heartland Centers Retreat, at which time the national movement for accreditation of LHDs was gaining momentum. The state of Missouri has been a pioneer in developing accreditation standards, and the major discussion on the table was to pilot a process for utilizing the Missouri metrics across borders. THD offered to pilot this process for the partnership and share the results with the entire group (consisting of Missouri, Oklahoma, Kansas and Kentucky). Compilation of the data to support the metrics took approximately 12 months to complete, at which point, NACCHO issued the RFP for Accreditation Preparation and a Quality Improvement Process. THD saw the NACCHO RFP as an opportunity to cross reference our local standards with the potential national standards. It was also an opportunity to subjectively evaluate our internal working knowledge of how effectively we were providing the essential public health services for our community. The process of identifying supporting documentation had established a need for a systematic way to gather information about programs and measure the progress according to strategic planning goals and objectives. The NACCHO LHD Self-Assessment confirmed what data collection had illustrated—a weakness in our internal capacity to provide essential service #9, Evaluate and Improve programs. Our goal in participating as a NACCHO demonstration site was to utilize the additional funding to provide QI training for our upper management and a cross-section of our staff and develop the infrastructure for an agency-wide quality improvement program to systematically collect program information, evaluate the information and encourage innovative and creative ideas to improve our ability to protect our public’s health.
Goals and Objectives

<table>
<thead>
<tr>
<th>Goal</th>
<th>Objective</th>
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| 1. Complete NACCHO LHD Self-Assessment Tool and provide Feedback | a. Identify differences between national standards and local standards.  
b. Identify and record differences between actual supporting data and management’s subjective evaluation of our ability to provide an essential service.  
c. Identify area to address for QI process  
d. Provide NACCHO with feedback regarding the utility of the tool. |
| 2. Develop the infrastructure to sustain an integrated QI program for the agency | a. Provide comprehensive training on QI process for upper level management in the organization.  
b. Provide comprehensive training on QI process for a cross-section of staff and management in each of our 5 divisions.  
c. Complete a small QI project for each division<sup>1</sup> |
| 3. Prepare staff for national accreditation and greater agency transparency | a. Ensure staff are consistently involved in QI processes and engaged in the development of agency-wide efforts  
b. Provide staff with relevant information regarding utility of accreditation in improving credibility of LHD in local community. |

Self-Assessment

To complete the NACCHO LHD Self-Assessment, members of the EMT group were asked to independently complete the tool over a period of two weeks. The numbers were averaged to identify the composite score for each indicator. The composite scores were recorded and returned to members of the EMT group with each indicator score range. Indicators with wide variances were selected for discussion at a meeting to reach a consensus. The entire process was approximately 4 weeks in length. The biggest barrier we faced was a lack of understanding about the services other divisions provided. For example, the division director for Environmental Health Services did not have a working knowledge of the services provided by Community Health Services and vice versa. This is not a reflection of their ability to understand, but rather a consequence of the organizational structure of our LHD. Examples such as this were repeated across the EMT group and helped to highlight the necessity for a systematic way for the EMT group to receive information from other programs and divisions in an effort to pool resources and provide more comprehensive and/or effective services to the community.

Highlights from Self-Assessment Results

<table>
<thead>
<tr>
<th>Standard/Indicator #</th>
<th>Standard and Significance</th>
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| IX                   | Evaluate and Improve Programs  
  • This was an area of weakness for THD, as identified through the self-assessment. After discussion, THD felt this standard would be the best one to address through our QI process |
| X-C                  | Apply Research Results in LHD Activities  
  • This was also an area of lower scoring, but THD added it to the 5-year department improvement plan instead of addressing it in this project |
| I-C                  | Conduct or Contribute Expertise to Periodic Community Health Assessments  
  • THD was pleased to discover that we consistently and systematically contribute to and provide leadership in the development of periodic Community Health Assessments. |

<sup>1</sup> Because of the nature of the QI project selected by the Environmental Division (mosquito trapping) the QI cycle will not be completed until the spring.
Quality Improvement Process

AIM Statement:

**PLAN:** Identify an individual to coordinate an agency-wide effort to formalize a quality improvement program and identify a centralized system for reporting program evaluation data.

**DO:** Enlist the services of a consultant to help develop the infrastructure for an agency-wide program (Appendix B) and provide individual trainings to divisional teams for the completion of small QI projects (Appendix C). Work with each division to complete small QI projects according to agreed upon timelines.

**CHECK:** Results are defined by the successful completion of the PDCA cycle and timely reporting by Team Leaders to the QI Coordinator. The following timetable was utilized and successfully adhered to.

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation in QI Training (Appendix D)</td>
<td>September 15, 2008 8:00am – 4:00pm</td>
</tr>
<tr>
<td>Complete PDCA Cycle #1</td>
<td>October 3, 2008</td>
</tr>
<tr>
<td>Complete PDCA Cycle #2</td>
<td>October 17, 2008</td>
</tr>
<tr>
<td>Final QI Report</td>
<td>October 31, 2008</td>
</tr>
</tbody>
</table>

The results of each divisional QI project can be found in Appendix C.

**ACT:** Formalize the roles and infrastructure for agency-wide QI effort.

Protocol: Reporting to Oversight Committee
- Small QI projects will be conducted quarterly until all staff has participated in training and completed 2-3 PDCA cycles
  - Each new QI project must be submitted in the form of a Focusing/Issue/Problem Statement to QI coordinator at the end of each quarter and 2 weeks in advance of next scheduled EMT meeting
    - EMT will review new QI projects and make final decision
  - QI Projects are finalized in a Process Summary Worksheet and submitted to QI Coordinator to be included in the Quarterly QI report for the agency.
    - EMT will review and comment on Quarterly QI report to determine satisfactory progress towards divisional strategic planning goals.
Small QI Team Responsibilities and Support
- Small QI teams will participate in a one-day training on utilizing QI tools at the start of their first QI project
- Small QI projects will identify a team leader to serve as point-of-contact with QI coordinator and program Dashboard Committee Representative (DCR)
  - Team leader will provide additional feedback to DCR regarding metrics that may need to be included in Dashboard system
  - Team leader will facilitate necessary team meetings to complete PDCA cycles, and identify and communicate technical assistance needs to QI coordinator
  - Team leader will coordinate the completion and submission of the Focusing/Issue/Problem Statement and Process Summary Worksheet

Results
The first quarterly QI report will be submitted to the EMT group at the December meeting and submitted to our Board of Health in the same month. The unique piece of our program is the fluidity of our QI team. While the oversight group will remain the same, the QI team leaders and teams will change quarterly, offering each employee the opportunity to complete the entire process, training to implementation. We are confident that this method will ensure an integration of QI processes into everyday job applications. To date, the internet Dashboard system has not been completely integrated and is not currently being utilized as a central reporting system. Progress continues to be made steadily to that end and we are confident that it will prove to be a welcome component of the QI program.

Lessons Learned
The success of our QI program is in the buy-in from our programmatic staff. It is essential that a representative cross-section is involved in the process from idea conception to design to implementation. Without buy-in from our staff, we would have no avenue for fully implementing QI processes. Because of the length of time it takes to complete the self-assessment and the importance of QI training to ensuring staff has the right tools in their toolbox, ideally we would have completed training earlier in the grant cycle and had additional time to discuss some of the obstacles staff overcame as well as to gather results/data.

Next Steps
The QI program is now formally a component of our agency wide programming. The quarterly reporting design will be evaluated for efficacy at the conclusion of the 2009-10 fiscal year to determine whether more or less frequent cycles should be utilized. Additionally, post-evaluation, the EMT group will determine if the agency is prepared to beginning utilizing the QI process for larger, inter-division projects.

Conclusions
Establishing the QI structure ensures that we have mechanisms in place to make certain we are consistently capable of delivering the 10 essential public health services to our community. Consistent and objective collection and analysis of data provides the infrastructure for the documentation necessary to gain accredited status.

Appendices
Appendix A: QI Storyboard
Appendix B: Big QI Report
Appendix C: Small QI Project Reports
Appendix D: QI Training Agenda and Notes
APPENDIX A: STORYBOARD TEMPLATE

LOCAL HEALTH DEPARTMENT NAME: Tulsa City-County Health Department
ADDRESS: 5051 S 129th E Ave, Tulsa, OK 74134
PHONE NUMBER: 918-595-4058
SIZE: Large
POPULATION SERVED: 583,000
PROJECT TITLE: Agency QI Program Infrastructure

PLAN
Identify an opportunity and Plan for Improvement

1. Getting Started
Complete the NACCHO LHD Self-Assessment tool in the spring with upper management staff and identified the need for a formalized agency process for evaluating and improving programs.

2. Assemble the Team
The EMT group identified the need for consistent involvement of upper management through oversight and approval of particular QI projects/ideas of programmatic staff. Agency QI team is comprised of small QI project team leaders (5) a QI coordinator and the EMT group. Each small QI team is comprised of 4-8 staff.

3. Examine the Current Approach
Currently, program evaluation occurs annually with strategic planning retreats programmatically. Programs do an excellent job of gathering data however, a formal process for evaluating the data for program efficacy on a more frequent basis does not exist. Additionally, guidelines for measuring program efficacy against other national best practices are not in place.

4. Identify Potential Solutions
Potential solutions included utilizing the intranet Dashboard system that will soon be in place; identifying staff in each program to participate in a committee; developing a QI infrastructure.

5. Develop an Improvement Theory
Regular evaluation of program metrics and efficacy utilizing a Plan-Do-Check-Act model will improve our ability to provide the community with the 10 essential public health services and give staff an opportunity to identify solutions to programmatic problems in a team environment with broad agency support.

DO
Test the Theory for Improvement

6. Test the Theory
Conduct QI training for EMT group and Divisional QI teams. Implement the QI infrastructure and evaluate feasibility of quarterly reporting timeline.

CHECK
Use Data to Study Results of the Test

7. Check the Results
Divisional QI Teams were able to successfully meet established deadlines for this cycle.

ACT
Standardize the Improvement and Establish Future Plans

8. Standardize the Improvement or Develop New Theory
The QI structure with quarterly reporting will continue through 2009 and be re-evaluated for continued feasibility and utility to staff.

9. Establish Future Plans
Continue infrastructure with annual evaluations until all staff have participated on a QI project, at which point explore the feasibility of completing inter-program or inter-divisional QI projects.
The Executive Management Team (EMT) convened at 8:00 AM in the Board Room. Gary Cox presented a high level overview of the recent Operational Definition metrics self-assessment. He reviewed areas of high performance and opportunities for improvement. EPHS 1 received the highest assessment at the public health system level. EPHS 9, evaluation, was an area selected for additional concentration through the recently received NACCHO Quality Improvement Demonstration Grant.

Public Health Foundation has been contracted with to assist the health department with its QI and evaluation, as part of the NACCHO grant. On behalf of PHF, Les Beitsch presented an overview of QI, dividing quality improvement into its two major constituent parts: Big QI (the enterprise-wide superstructure that supports QI across and within the entire Tulsa Health Department) and Little QI (the QI cycles that take place within each division and program to improve its performance).

Les Beitsch offered several definitions/models for Big QI (Baldrige, Turning Point, and Balanced Scorecard). Given the strong overlap among them, the structure was discussed employing the Baldrige framework as the reference. The 7 domains of Baldrige are as follows:

1. Leadership
2. Strategic Planning
3. Customer and market focus
4. The organization uses data and information systems to support key processes and manage performance
5. Human resource focus
6. The health department manages its processes
7. Business results (for public health this translates into improvements in performance and community health status)
8. Alignment of the 7 domains (Les Beitsch subsequently recommended an 8th domain be added to represent the senior management responsibility for assuring that all the 7 domains are appropriately aligned to reflect agency priorities and the strategic plan).

The remainder of the marathon meeting was directed at defining what a Big QI structure would look like for THD.

**Big QI Oversight**

Much of the discussion centered on what might be the best approach for THD. The following were among the thoughts shared:

- Leadership has to set the tone that they are committed
- there should be close association with the EMT in order not to build another new and separate silo
- input from field staff (those closest to the work) is critical for the QI system to function effectively
- senior management must establish and nurture both a top down and bottom up approach for a new QI culture to thrive
- this process offers an opportunity to model a well rounded leadership style
  - allow employees to experiment and make mistakes in a supportive atmosphere
  - develop leadership capacity of “new blood” and avoid possible inbreeding
• as Little QI is developed it should feed into the goal system and strategic planning already in place
• size of the Big QI oversight group is an important consideration
  o if the Director Advisory Committee (DAC) functions as the Quality Council, then it may be large and unwieldy with approximately 25 members
• how we engage and communicate with the next level down within the organization will go a long way in determining the acceptance of a QI culture
  o even when information is shared, staff do not always “hear” it
• sometimes our jobs get in the way-- we need to establish QI as a priority, and as part of our jobs

Options Discussed
• EMT also sits as the organization wide Quality Council
• at the other end of the continuum, EMT serves as the “boundary setters”
  o a subsidiary group guides Big QI and reports regularly to the EMT
  o this group is “deputized” by the EMT to serve as the Quality Council
    • it serves as a clearinghouse for new QI ideas and projects
  o another alternative recognizes roles for DAC and Employees Committee, a sort of trilogy
• vesting Big QI authority with a group selected for their knowledge of EPHS and accreditation
• there appeared to be general consensus that regardless of structure selected, ultimate responsibility for leadership falls to EMT
• Strategic Planning domain already set in place with a formal structure.
• How would various options be operationalized?
  o EMT sets the “what”
  o a new Quality Council determines the “how”
  o EMT establishes organizational QI priorities (what), then turns to Quality Council and asks them to formulate appropriate strategies (how)
  o membership could be representative from each Little QI project underway
  o membership could be DAC minus EMT plus QI team representatives
  o membership could alternatively be EMT plus another representative from each division
  o EMT could sit on a larger committee or council and serve in an ex officio capacity
    o boundaries also set by EMT
• once structure established, remaining domains and their alignment would be determined

Additional Recommendations
Les Beitsch made some additional recommendations for consideration by the EMT.
• Baldrige be strongly considered as the basis for the Big QI framework for THD
  o Baldrige is public domain, and materials, training, and technical assistance are available at moderate costs
  o Each state has its own Baldrige type process and so resources are available within the state
• If the Baldrige recommendation is accepted, consider undertaking the first level Baldrige recognition or challenge (Oklahoma version) approximately one year from now
• The Tulsa Board of Health undertake the use of the governance instrument of the National Public Health Performance Standards in order to compare results with the
other assessments recently completed and to enhance Board understanding of current standards, QI, and accreditation activities.
APPENDIX C: SMALL QI REPORTS

Family Planning—QI Project Name
Unsure of patient compliance regarding teaching to began prenatal care received at time of positive pregnancy test

QI Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Title, Department or Role</th>
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<tbody>
<tr>
<td>Tammy Goodman</td>
<td>RN</td>
</tr>
<tr>
<td>Sharon Barnes</td>
<td>Administrative assistant</td>
</tr>
<tr>
<td>Cherlyn Hiner</td>
<td>RN</td>
</tr>
<tr>
<td>Haydee Monet</td>
<td>Interpreter</td>
</tr>
<tr>
<td>Roxana Shea</td>
<td>Administrative assistant</td>
</tr>
<tr>
<td>Maria Munoz</td>
<td>Outreach worker</td>
</tr>
<tr>
<td>Anabel</td>
<td>Interpreter</td>
</tr>
<tr>
<td>Pat</td>
<td>Consumer protection</td>
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What were you trying to accomplish?
Determine if patients are following instructions provided by RN to schedule PNC within 2 weeks of receiving a positive pregnancy test and if they are taking PNV provided by RN on day of test.

1. PLAN: What was the state of affairs when you began?
We have started by collecting all charts for patients that have had positive pregnancy test since 09/01/08.

What change could be made that would result in improvement?
We do not have improvement theory because we do not know if anything needs to be improved as of yet.

2. DO: How was the test implemented?
2 weeks after clinic visit client will be contacted via phone to assess if they have appt for PNC and if they are taking PNV. If unable to be reached by phone outreach worker will attempt to contact patient by doing a home visit.

3. CHECK: Did it work?
The data collected so far looks like the clients are following instructions and are getting timely PNC

4. ACT: What are the next steps?
No new approach was implemented in our study. The numbers show that patients are following the instructions given by the nurse to start taking prenatal vitamins and to schedule prenatal care within two weeks of obtaining proof of pregnancy therefore no other tests are needed.

Include any specific tools, diagrams or processes used—fishbone, affinity, process mapping, logic models, 5W’s, etc.
QI Project Name—Planning and Epidemiology/Emergency Preparedness Group

QI Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Title, Department or Role</th>
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<tbody>
<tr>
<td>Nicole Schlaefli</td>
<td>Epidemiologist</td>
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</tbody>
</table>
Patrick Hilton  Epidemiologist
Chanteau Orr  Coordinator, Planning and Epidemiology
Joann Calloway  Administrative Assistant
Kelly VanBuskirk  Health Planner
Linda Muirheid  Mass Medication Coordinator
Brenda Dale  Pandemic Flu Coordinator

What were you trying to accomplish?
The group is trying to increase the availability of informational sources available to the public.

1. PLAN: What was the state of affairs when you began?
Current methods for distribution of information mainly involve in the public coming to directly
to us at the James Goodwin Health Center. When a concerned individual or group requires
knowledge about a disease or preparedness, they currently can: call up the appropriate
department and ask for information; request information be mailed to them; log on to the
Tulsa City County Website; or the concerned member of the public can come to the front
desk of the James Goodwin Health Department.

What change could be made that would result in improvement?
QI team staff will identify new distribution locations within the different Tulsa Health
Department locations by visiting each site to determine the best location for the information
to be placed. In addition, seasonal information will be provided throughout the year along
with everyday information. Also, the seasonal information will be provided throughout the ear
along with the everyday information.
The THD mascot (the kangaroo) will be utilized at one of the locations each month (rotating
locations each month) to distribute information to individuals.

2. DO: How was the test implemented?
Team members scouted locations during the week of Sept 22-26, took pictures of all of the
potential locations in which kiosks could be placed.
During the week of Oct 6-10, work orders will be placed to install kiosks in needed locations
and brochures are going to be edited and created if needed. Brochures orders are going to
be placed to the printer so both the P&E dept and EPD divisions are ensured to have
enough fliers to fill the kiosks.
See attached “Fliers per Site” for a list of what is being placed at each site and “Site
Pictures” for the potential locations for each site kiosk.

3. CHECK: Did it work?
Kiosks will be filled during the week of Oct 13-17. Each brochure was numbered so the P&E
department could count how many of each brochure was taken.

4. ACT: What are the next steps?
After filling all the kiosks, monitoring which information was more utilized, and recounting to
see how many brochures in all were taken, several issues were raised and corrected. The
two main areas of improvement that are now being addressed are 1) providing information in
accordance with the season (i.e. West Nile Virus in the summer and cold/flu information in
the winter) and 2) providing information in Spanish (or other second language). Originally,
no Spanish brochures were distributed at Central Regional Health Center and Expo Health
Center. When a team member went back to refill the brochures and count them, several
disease topics brochures that had been translated into Spanish were used in the refill of the
kiosks.

Include any specific tools, diagrams or processes used—fishbone, affinity, process
mapping, logic models, 5W’s, etc.

Process Mapping – Flow Charting:
- AS IS:

Public Contacts P&E / EPD

Internal & External Clients

Call back from someone previously

Request presentation and health fairs
Customer questions answered?
- No
- Yes
- Stop

1. Public contacts P&E / EPD
   a. Internal & External clients
   b. Call back from someone previously contacted
   c. Request for presentations and health fairs
      i. Direct to appropriate website or mail appropriate information
      ii. Direct to lobby for printed literature

**Cause and Effect Diagrams:**

- Inadequate availability of information in public
  - Zero/limited access to website
  - No designated areas for information

- Lack of manpower
  - Hiring freeze
  - Budget constraints

- Preconceived Erroneous Knowledge
  - Handouts/literature in appropriate language
  - Cultural sensitivity
  - Age appropriate & Educational level materials

- Language/cultural problems

- Increase Public Knowledge

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**Kiosk Stands Internal**
- Place in all THD Clinics & satellite locations
- Utilize 595-4EPD
- EPD Newsletter

**Kiosk Stands External**
- Community Partners
  - Kangaroo Mascot – Story Time
  - EPD Newsletter

**Increase Availability of Information**
### Gantt Chart:

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Week Ending</th>
<th>Assign To</th>
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<tbody>
<tr>
<td>1. Visit THD Clinics/Satellite locations</td>
<td>9/18/08</td>
<td>Patrick Hilton/Brenda Dale</td>
</tr>
<tr>
<td>2. I.D. External Partners for newsletters</td>
<td>10/10/08</td>
<td>Kelly VanBuskirk</td>
</tr>
<tr>
<td>3. Translating Resources</td>
<td>10/17/08</td>
<td>Linda Muirheid</td>
</tr>
<tr>
<td>4. Transcribe QI training notes from 9/15/08</td>
<td>9/18/08</td>
<td>Joann Calloway</td>
</tr>
<tr>
<td>5. Literature Review</td>
<td>10/10/08</td>
<td>Chanteau Orr / Nicole Schlaefli</td>
</tr>
<tr>
<td>6. Complete PDCA1</td>
<td>10/3/08</td>
<td>Nicole Schlaefli</td>
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<tr>
<td>7. Complete PDCA2</td>
<td>10/17/08</td>
<td>Nicole Schlaefli</td>
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<tr>
<td>8. Final Report to NACCHO</td>
<td>10/24/08</td>
<td>Nicole Schlaefli</td>
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**QI Project Name:** Human Resources Technology Applications

<table>
<thead>
<tr>
<th>Name</th>
<th>Title, Department or Role</th>
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<tbody>
<tr>
<td>John Gogets</td>
<td>Director, HR</td>
</tr>
<tr>
<td>Esther Fourkiller</td>
<td>Administrative Assistant, HR</td>
</tr>
<tr>
<td>Ingrid Alvarez</td>
<td>Administrative Aide, HR</td>
</tr>
<tr>
<td>Kathy Cooper</td>
<td>Accounts Supervisor, PHS</td>
</tr>
<tr>
<td>Rick Myscofski</td>
<td>Safety/Loss Prevention Coordinator, HR</td>
</tr>
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**What were you trying to accomplish?**
Reduce the time for Human Resources personnel to forward quality employment applications to the hiring manager with the use of technology.

1. **PLAN: What was the state of affairs when you began?**
   - Human Resources staff reported that existing services to hiring managers could be improved.
   - Human Resources formed a quality improvement team to improve existing services, research issues for clearer understanding and determine the scope of the project.
   - Team members attended quality process training facilitated by the Public Health Foundation.
   - Follow-up team meetings were scheduled. Team member roles and responsibilities were assigned. The team mission or focus was clarified. Current and future states of the problem were discussed. A problem statement was determined. The work process was discussed (see process flow chart for description).

2. **What change could be made that would result in improvement**
   - The improvement theory uses computer technologies such as document scanners and groupware software to provide fast, secure online delivery of employment applications to hiring managers.
   - Increases in Human Resources staff and hiring manager satisfaction verify process improvement.

3. **DO: How was the test implemented?**
   - The team analyzed the current work process (S-I-P-O-C) and used a flow chart to visually represent the work process.
   - The team used Force Field Analysis as well as Fishbone Cause and Effect/Solution Diagrams to define the problem, identify positive and negative influences.
   - The team identified and prioritized root causes of problems and solutions.
   - The team used the Plan-Do-Check-Act improvement cycle.
   - The test solution included: a) purchase of a document scanner; b) equipment installation and staff training by ITS personnel; c) use of new equipment to scan qualified employment applications; and d) distribution of applications to hiring managers via the THD Intranet.
   - No implementation obstacles were reported. A high level of inter-department cooperation was observed.

3. **CHECK: Did it work?**
   - Data collection was not necessary to implement the improvement strategy.
   - Observed results match expectations and include: a) less staff time required to distribute qualified employment applications due to operational efficiencies; b)
convenient access to employment applications by hiring managers; and c) available secure online tracking capabilities for distributed employment applications.

4. ACT: What are the next steps?
   o New approach adopted. Additional technology options to permit greater flexibility discussed.
   o Next steps for improvement include:
     • Standardize the application process.
     • Leverage benefits of future technology for advanced human resources applications.

Include any specific tools, diagrams or processes used—fishbone, affinity, process mapping, logic models, 5W's, etc.
Qi Initiative/HR Project
Cause and Effect Diagram (Solution)

Machines
- Purchase equipment #1
- PC
- Scanner
- Train employees on new equipment & software

Materials
- Purchase HR analytical software
- Notice to website users to update Adobe Acrobat

People
- Solicit IT support
- Install PC kiosk at JSGC for applicants #2
- Clarify vague job requirements
- Clarify manager expectations

Methods

Reduce the time to forward qualified applications using technology.
QI Project Name:  Community Health Services WIC WAITING ROOM

QI TEAM MEMBERS:

<table>
<thead>
<tr>
<th>NAME</th>
<th>TITLE</th>
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<tbody>
<tr>
<td>Elaine Wyatt</td>
<td>WIC clerk</td>
</tr>
<tr>
<td>Anne Majsterek</td>
<td>WIC nutritionist</td>
</tr>
<tr>
<td>Cheryl Schendt</td>
<td>WIC manager</td>
</tr>
<tr>
<td>David Sellers</td>
<td>Manager, Maintenance and Operations</td>
</tr>
</tbody>
</table>

What were you trying to accomplish?
To make a plan to rearrange the WIC waiting room to provide more privacy at the WIC intake windows and a safer environment for clients.

1. PLAN: What was the state of affairs when you began?
CURRENT PROCESS: We completed the project and used the Gantt chart.

What change could be made that would result in improvement?
We used theory #1: Rearrange the room and dispose of tables, replacing them with chairs. An evaluation tool, a tally sheet, was made by Anne to record comments about the new waiting room arrangement. The tally sheet will be inner office mailed to QI Coordinator.

2. DO: How was the test implemented?
David and his staff moved the waiting room chairs and removed tables, replacing them with chairs.
Anne made the evaluation tool, a tally sheet to document comments about the new chair arrangement.
Elaine and Anne recorded data on the evaluation tool.
Cheryl and Elaine discussed the information on the evaluation tool.
There were no obstacles to the QI process or the evaluation tool.

3. CHECK: Did it work?
Please see evaluation tool for data collected. The results were positive in meeting our goals of having a more private area around the WIC windows and a safer room for clients. We will continue to use the room as it is arranged presently, and an ongoing evaluation will be done. The results matched our expectations. The new arrangement is an improvement over the previous arrangement.

4. ACT: What are the next steps?
The new waiting room arrangement will continue, as it is working well. We will continue to monitor comments about the room from staff and clients. We may install a sign, which stands from a base on the floor to further direct clients to the WIC window. It would say “please wait here until called”, or some words similar to those.
Include any specific tools, diagrams or processes used—fishbone, affinity, process mapping, logic models, 5W’s, etc

COMMUNITY HEALTH

- POSITIVE:
  PRIVACY
  SAFETY
  LESS CLIENT AND STAFF STRESS
  TEAMWORK WITH IMMUN. CLINIC

- NEGATIVE:
  BUDGET EXPENSE
  TIME MOVING COMPUTER

Poor arrangement of waiting room

SOLUTION AND EFFECT

PROVIDE A SAFE WAITING ROOM FOR CLIENTS:

- REMOVE TABLES
- CAP ENDS OF CHAIRS
- EVALUATE BY A CHECKLIST

HIPPA CLIENT PRIVACY:

- REARRANGE CHAIRS
- SIGN IN SHEET
- EVALUATE BY A CHECKLIST

TASKS | DATES | ASSIGN TO
--- | --- | ---
9/19 | 9/26 | 10/03 | 10/10 | 10/17 | 10/24
Talk to Becky G XX | | | | | Cheryl
Order Chairs & Caps XX | | | | | David
Move Chairs XX | | | | | David
Eval. XX | | | | | Elaine
Group Meeting XX | | | | | Committee
Final Report XX | | | | | Cheryl

GANTT CHART

Date | North Window Crowding Result + (pos) or - (neg) | South Window Crowding Result + or - | North Clerk Stress Result + or - | South Clerk Stress Result + or - | Safety Issues
--- | --- | --- | --- | --- | ---


<table>
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<th>Time</th>
<th>North</th>
<th>South</th>
<th>North</th>
<th>South</th>
<th>South</th>
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<td>+</td>
<td>+</td>
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<tr>
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<tr>
<td>10:10</td>
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QI Project Name: Environmental Health Services—Reduce Inconsistency Mosquito Trapping

QI Team Members:

<table>
<thead>
<tr>
<th>Member</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott Meador</td>
<td>Env. Specialist</td>
</tr>
<tr>
<td>John Zima</td>
<td>Supervisor</td>
</tr>
<tr>
<td>Bernard Dindy</td>
<td>Sr. Env. Specialist</td>
</tr>
<tr>
<td>Lois Swanson</td>
<td>Lab Supervisor</td>
</tr>
<tr>
<td>Vicki Silva</td>
<td>Administrative Assistant</td>
</tr>
<tr>
<td>John Baker</td>
<td>Manager</td>
</tr>
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</table>

1. Plan: What was the state of affairs when you began?
We as a division had various (up to 6) different ways of site selection, setting up and collection of mosquito traps. We needed to have a uniform method of collection to ensure that number of mosquitoes per site was valued equally. The process has been unchecked since the inception of the program many years ago. Now that we are using more data to determine use of pesticides, more complete data is needed. The current approach was that each collector used the methods that best met their needs and physical abilities. Simply stated the current state of the program is in disarray.

Improvement could be made in the areas where the mosquito traps are placed, the water used for the traps, and which types of batteries are used to capture the mosquitoes. We looked at every piece of the trap and all the elements of the trap to check which parts could be consolidated and/or made uniform.

2. DO: How was the test implemented?
Each collector was asked to list the things that they thought were important to maintain with the current procedure. Then they expressed any concerns they had with upcoming changes. This included any scientific differences they may have and any physical limitations they may have.

Many differences were found with the amount of time that we were to use for the collections.

We did not implement any of the new ideas because the end of the mosquito season was near and any changes at that time would have been useless.

3. CHECK: Did it work?
We were unable to begin the process of checking if any of our new procedures would work. The time of the QI process was the same time as the end of our mosquito season. We were unable to continue because also there are no mosquitoes this time of year. The process will begin with the new trapping season that begins in April 2009.

4. ACT: What are the next steps?
The new procedure will be tested and most likely be implemented in the 2009 mosquito season. We are currently researching the data from the 2008 season. One of the inspectors used most of the methods that we are implementing in the future. The mosquitoes collected by that collector was the highest numbers, so the evidence is clear that this can work.

<table>
<thead>
<tr>
<th>Elements</th>
<th>Control</th>
<th>Implement</th>
<th>Involve &amp; Influence</th>
<th>Outside Our Control &amp; Influence</th>
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<td>Within</td>
<td>Within</td>
<td>In</td>
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<td>Within</td>
<td>Within</td>
<td>Need influence</td>
<td>In</td>
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<td>Batteries</td>
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<td>Within</td>
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<td>In</td>
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<td>Need influence</td>
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For each element check with column(s) apply
APPENDIX D: QI TRAINING AGENDA

PHF Quality Improvement Workshop
Tulsa Health Department
NACCHO Quality Improvement Initiative
September 15, 2008
8:00 AM:
- Welcome Remarks
- Introductions
- Overview of the NACCHO Process
- Why we are here?

8:30 AM
- Introduction QI Process
- Review Problem Statements with Teams
- Discuss process for team problem solving process

Plan:
- Review Current and Future State Problem Statement
- Force Field Analysis on problem statement
- Maximize opportunities, minimize barriers
- Understand the benefits
- Review team Outputs

10:00 AM  Break
10:20 AM  Do:
- Map the process - High level flow chart of the Current State
- Develop a Cause and Effect Diagram on selected areas of improvement

12 Noon  Lunch
1:00 PM  Do: (continued)
- Complete Cause and Effect Diagram
- Review team outputs
- Map the process - High level flow chart of the Future State
- Develop a Cause and Effect Diagram on selected areas of improvement

3:00 PM  Break
3:20 PM  Check:
- How will we know if we are successful?
- What are the indicators of success?

Act:
- Project planning for November, 2008
- Develop a Gantt Chart of activities and tasks

4:30 PM  What's next?
5:00 PM  Adjourn