

Quality Improvement in State Public Health
Stories from the PHAB Accreditation Beta Test

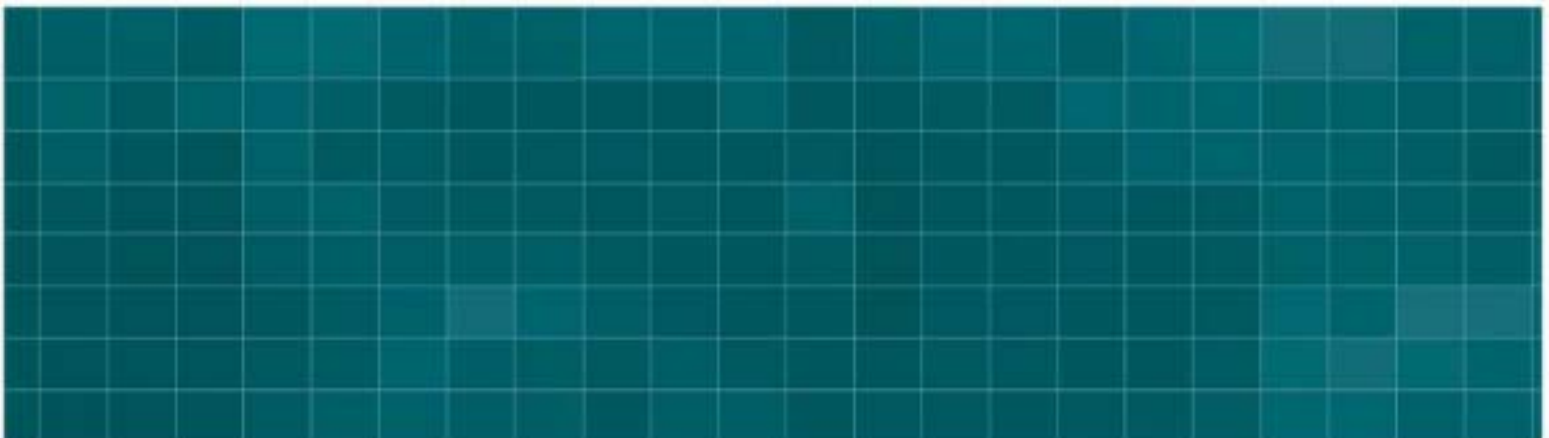




Table of Contents

Introduction: Public Health’s Quest for Quality.....	2
State Stories and Storyboards	
Florida.....	5
Iowa.....	9
Michigan.....	13
Mississippi.....	17
Ohio.....	21
Oklahoma.....	25
Washington.....	29
Wyoming.....	33
Acknowledgements.....	37



Public Health's Quest for Quality

Almost all state health departments are facing tight budget constraints, but tough economic times are not derailing a movement that has been gathering steam through much of the last decade: the campaign for quality in public health.

Challenged by Institute of Medicine (IOM) reports that stressed the importance of high standards and accountability in public health, leaders in every corner of the public health community are embracing this quality initiative, especially national accreditation, as a cornerstone of their strategy.

Moreover, two influential supporters of public health in the United States, the Centers for Disease Control and Prevention (CDC) and the Robert Wood Johnson Foundation (RWJF), have fueled this growing movement by supporting the Public Health Accreditation Board and by funding training programs for health departments in the latest quality improvement tools.

"It's time for health departments to celebrate the kinds of successes they are having in improving the quality of people's health, as well as their commitment to maximum efficiency in the use of government funds," says Jim Pearsol, Chief of Public Health Performance at the Association of State and Territorial Health Officials (ASTHO). "National accreditation in particular is an excellent vehicle for demonstrating transparency and accountability."

Partnership for Action

Along with such partner organizations as the National Association for City and County Health Officials (NACCHO), the American Public Health Association, and the National Association of Local Boards of Health, ASTHO began to seriously explore the feasibility of national accreditation in 2005.


"Two watershed IOM reports dealing with the future of the public's health had emphasized that the public health field should be accountable and measureable," says Lindsey Caldwell, Senior Director for Performance Improvement at ASTHO. "And accreditation was viewed as a means of lifting the entire field and improving health outcomes."

At first, observes Pearsol, there was some "healthy skepticism" about such issues as mandatory versus voluntary accreditation. "There was probably an even split about whether or not it was time for accreditation."

Now, six years after that initial work, support for accreditation has become virtually universal. Says Pearsol, "Once people saw the framework of the accreditation standards, which were built by their own peers in the public health community, they realized that this was work they were already doing. And why shouldn't they get credit for it?"

The effort also has received strong backing, both from CDC and the RWJF, which are providing funding for the Public Health Accreditation Board (PHAB), as well as supporting other national initiatives in public health quality improvement and performance. PHAB's mission is to advance the continuous quality improvement of state, local, tribal, and territorial public health departments. PHAB developed the framework for national accreditation, which includes just over 100 standards across 12 domains. The framework constitutes the work of state, local and tribal health departments through a collaborative effort led by public health practitioners, public health institutes and representatives from academia. PHAB's accreditation process and standards are also informed by practice-based experiences and major national efforts in public health.

To further prepare for the formal accreditation process, PHAB initiated a beta test, completed in 2010, which drew volunteers from about 150 health departments. Eight states, 19 locals and three tribes were selected to participate. Participants in the beta test conducted a self-assessment which involved the submission of documentation to show where they were in alignment with the PHAB standards and where there were gaps. The beta test also included a site visit to verify the health departments' evidence.



“The whole aspect of self evaluation is vital to this program,” says Kaye Bender, the PHAB president and a former state health department senior deputy. “National accreditation is not a top-down process. It is a voluntary, peer-driven process. We want health departments to apply because they want to, not because they are required to.”

PHAB revised its standards and measures based on feedback from the beta tests and will have application materials ready in summer 2011. Bender expects up to one third of state health departments to apply for national accreditation in the fall of 2011 and in 2012, with up to another third following suit soon after.

Important prerequisites for accreditation include a health assessment, a health improvement plan, and an agency strategic plan. “These accreditation requirements are not as daunting as health departments might think,” says Bender, “and are typically required anyway for receiving important grants.”

The PHAB President believes that accreditation is long overdue. “It will help deliver the consistent high quality standards that people expect from public health,” notes Bender, “and it demonstrates that government entities are willing to examine themselves with an eye to doing a better job.”

Bender also believes that accreditation will open the doors to additional funding for quality improvement (QI) activity. The Robert Wood Johnson Foundation has already underscored that point. As an important addition to the PHAB beta test, RWJF funded each participant to conduct a QI project. The projects were intended to provide an opportunity for each participant to apply a quality improvement process to an area of need identified from the beta test. Case studies describing the QI projects undertaken by the eight state health departments involved in the beta test can be found on ASTHO’s website. Projects ranged in a variety of topics from supporting local health departments with better data collection to improving health outcomes in newborns.

“From the very beginning of our planning for the beta tests, we envisioned doing these QI projects,” recalls Pamela Russo, Senior Program Officer at RWJF. “Public health accreditation isn’t meant to be a certificate that you hang on the wall but a process of continuous quality improvement.”

Even when accreditation is granted, explains Russo, PHAB site visitors will cite areas needing improvement, and health departments will need to explain in their annual reports the strategies for closing those performance gaps. To assist health departments as they tackle such future QI projects, RWJF is planning a new practice exchange website, which will showcase public health QI projects from around the country and serve as resources for peer health departments to apply to their own QI work.


Russo notes that the beta test QI projects, funded at about \$30,000 each by RWJF, gave health department staff valuable, hands-on experience in a whole range of QI tools. For example, most of the teams employed classic Plan, Do, Study, Act (PDSA) methodology and such tools as Pareto charts, root cause analysis, fishbone diagrams, histograms, the “five-whys”, and survey techniques. ASTHO, NACCHO and the National Indian Health Board provided training, technical assistance, and project templates for QI to the states, locals and tribes participating in the beta test

“Many individuals on the health department teams had no prior training or experience in quality improvement techniques,” says Russo, “yet they were able to achieve results that exceeded expectations, even in a very short time frame.”

“A big lesson that our QI team learned is that everything starts with gathering solid data,” says Kelly Friar, coordinator for the Ohio Department of Health accreditation beta test. “Unless you are willing to dig into the data and use it to challenge assumptions, you may go off in an entirely wrong direction.”

Moreover, the QI projects triggered a team-building process that will reap benefits as state health departments embark on the journey of continuous improvement inspired by national accreditation.

You can learn more about state health department quality improvement efforts and the national accreditation process by consulting these sources:



Association of State and Territorial Health Officials (ASTHO)
<http://www.astho.org/Programs/Accreditation-and-Performance/>

Public Health Accreditation Board
<http://www.phaboard.org/>

Centers for Disease Control and Prevention (CDC)
Division of Public Health Performance Improvement
<http://www.cdc.gov/ostlts/about/DPHPI.html>

Robert Wood Johnson Foundation
Public Health Programs
<http://www.rwjf.org/publichealth/pg.jsp>

Institute of Medicine's "The Future of the Public's Health in the 21st Century."
http://books.nap.edu/openbook.php?record_id=10548



Florida: Polishing the Online Public Health Message

These days, no matter what your business or service, if you are not communicating effectively on your website, you simply are not communicating.

That fact hit home to Performance Improvement staff at the Florida Department of Health (DOH) last year, as they participated in a voluntary beta test to prepare for national accreditation from the new Public Health Accreditation Board (PHAB). Weaknesses in the department's website jumped out as a key concern, both in the beta test self assessment process, where staff assess the department's performance against PHAB standards, as well as in the site visit report from PHAB. Among other things, the website fell short in communicating the department's message and in providing clear contact information.

To address those shortcomings, the Florida DOH chose improving its website as the target for a quality improvement (QI) project, designed as an adjunct to the beta test and funded by the Robert Wood Johnson Foundation with support from ASTHO. Like the QI projects undertaken by the seven other states involved in 2010 beta tests, Florida's project would have to be accomplished in an accelerated timeframe.

"We felt that improving the website was a doable project in the short time we had available," recalls Donna Marshall, acting director of the DOH Office of Performance Improvement. "And, if successful, the project could also have organizational impact, since all the 67 local health departments in our system have websites as well."

Roots of the Problem

With strong backing from department leadership, including information technology (IT), the QI team came together in mid-September to begin the project. With Laura Reeves, a DOH Operations Manager, serving as facilitator, the team consisted of representatives from communications, information technology, and DOH program areas such as environmental health, disease control, and performance improvement.

As the team began to execute its "Plan, Do, Study and Act" (PDSA) process, they first had to resolve some early issues involving team dynamics, notes Reeves, such as concerns about time commitment and the team's purpose, as well as the need to clarify how the project was chosen and how it would be documented. "When you are doing a QI project as a team," observes Reeves, "you must take into account everyone's experience and learning curve."


After resolving those concerns, the team discussed the potential opportunities for improving the website that were identified in the self assessment. They also brainstormed other problems, such as outdated content, navigation shortcomings, and lack of standardization in content development.

To gather baseline data in advance of their actions steps, team members participated in a peer-to-peer assessment survey in which they rated pages from four different areas of the external DOH website on 10 different characteristics. On a scale of 1 (lowest) to 5 (highest), they assessed such characteristics as: relevant and consistent content, understandable language, sufficient highlighting of key services, properly dated pages, and clear contact information. The survey resulted in an average rating of 2.6 for webpages from the epidemiology, performance improvement, lead poisoning, and environmental public health medicine program areas.

Why these disappointing results? The team turned to several QI tools for answers, including a flow chart that showed the current process for updating the external DOH website, as well as a fishbone diagram to analyze the root causes of the site's perceived weaknesses.

Setting the Target

By mid November, the team had arrived at a revised aim statement that would propel remedial action: Increase the overall website content and accessibility rating in external webpages in four DOH program areas from that the earlier score of 2.6 to 3.5.



To achieve that goal, the team discussed four different improvement theories. The one that they deemed most likely to make the most impact involved creating a standardized checklist for content being considered for Web posting. That list would address the five criteria that fell below the 2.6 average in the peer-to-peer survey:

- Targeted public health messages
- Highlighting current issues
- Adding appropriate metadata (adding key words/themes to increase relevancy to search engine results)
- Clear referral of site visitors to local services
- Properly dated webpages

“Most of our programs do not have staff specifically hired to update the Web,” explains Reeves. “That work is just one part of a larger public health job, and standardization in the way Web content is updated was a huge issue. So having a common checklist could potentially make a big difference.”

Adds Marshall: “Regardless of who might be doing Web updating, the checklist could ensure the kind of consistency that we wanted.”

To put the theory to work, QI team members from the program areas updated designated pages of their websites, based on the checklist. They also recorded the number of hours required in that process, and took note of possible revisions to the checklist. Finally, the IT department posted the revamped pages, and the QI team participated in another peer-to-peer survey on the revised content. The result was the overall average score jumped to 4.5, a 73% increase from the baseline rating of 2.6.

Wrapping the Project

“Many of us are used to QI projects that take a long time to complete, but this project proved that you can make a difference even in a short time frame” says Marshall. “This is how you get people hooked on QI.”

One of the keys to success, adds Reeves, is to “keep it simple” and ensure that quality tools proceed logically from one another and move the process forward.

Still, the work isn’t finished. In the spring of 2011, the QI team planned to get others responsible for updating the Web within DOH’s 11 divisions to evaluate the checklist, including content matter experts and Web managers. Local health departments will also provide their views. By the end of 2011, Marshall expects to recommend that this uniform checklist be standard policy for DOH and the local health departments.

What is the DOH QI agenda for the future? In early March, the department completed an extensive evaluation and justification review, which identifies a list of opportunities for improvement. In the coming months, the department’s new Surgeon General, Frank Farmer, MD, will be reviewing that report and setting priorities. Chief among them: completing a state health improvement plan and improving organizational performance.

You can learn more about the Florida Department of Health’s accreditation beta test QI project by reviewing the QI team’s storyboard found on the next page. To view the full size storyboards go to:

[http://www.astho.org/Programs/Accreditation-and-Performance/Accreditation/.](http://www.astho.org/Programs/Accreditation-and-Performance/Accreditation/)

PLAN

1. Getting Started

The Florida Department of Health participated in the Public Health Accreditation Board's National Voluntary Public Health Accreditation Beta Test. Using results from the accreditation self-assessment tool and site visit report, a list of organizational strengths and opportunities for improvement were developed.

From the list of identified opportunities for improvement, a QI project was selected to focus on improving the information provided through the Florida Department of Health (DOH)'s external website.

A schedule for the QI project, including the number of team meetings and specific deliverables was developed.

2. Assemble the Team

Upon approval of the QI project by the Acting Director of the Division of Information Technology, subject matter experts were chosen that reflected the potential areas for improvement, including: maintenance requirements and procedures for the department's website; messaging (communication) required for the DOH external website; messaging the use/role of local health departments for reporting disease and health conditions (environmental health and disease control); and performance improvement.

The Team was presented with three potential opportunities for improvement related to the DOH website identified during the completion of the self-assessment tool and the site visit report.

- (1) Lack of clarity on how current content is on the website;
- (2) Lack of clarity on who to report a disease or notifiable condition to within DOH; and
- (3) Need for a brief, clear agency mission description.

The team brainstormed additional website problems related to appropriate and effective content, ease of access to information, lack of standardization for content, and maintenance of websites.

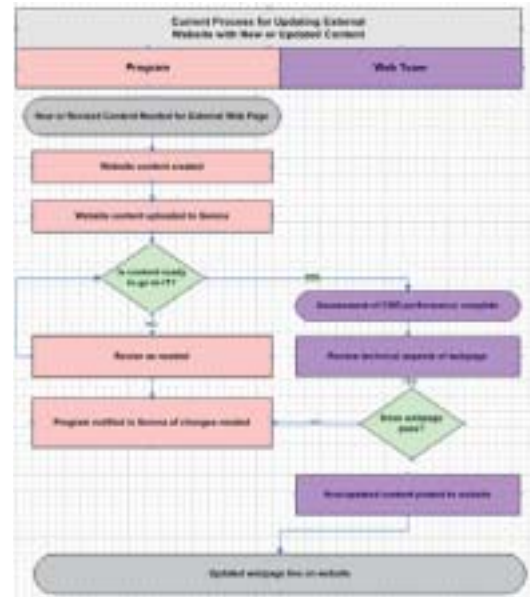
After collecting baseline data, the aim statement was: *By November 12, 2010, increase the website content and accessibility overall average rating for a sample of external web pages for four DOH Programs from 2.6 to 3.5.*

3. Examine Current Approach

In order to examine the current approach, each team member shared the process they currently used to post new or updated website content, which included content development. The results revealed that the process is not standardized within the department, with each project member providing a different interpretation of their process for updating and posting website content.

Review of team members' process information revealed common steps each program followed when posting new or updated content to websites.

The team used a fishbone diagram to further analyze the problem and identify root causes. The analysis of the causes identified across the five major categories revealed a consistent theme about lack of standards for web content.



CAUSE AND EFFECTS DIAGRAM



4. Identify Potential Solutions

Several potential improvement theories to address the lack of standards for web content were identified and considered. These included: (1) use of a standardized content review checklist to create or update website content; (2) centralized, dedicated staff to create and update web content in the Communications Office; (3) dedicated staff in each division primarily focused on web quality assurance; and (4) development of DOH policies and procedures on appropriate web page content.

After discussion, the team selected the creation and utilization of a content review checklist, since it was the most practical method to apply given the timeframe and resources available.

5. Develop an Improvement Theory

To set a realistic improvement goal, evaluation of the current web content and accessibility of information on selected program web pages was

conducted. The results indicated that the (peer-to-peer) overall average rating on content and accessibility of information was 2.6.

An analysis of the peer-to-peer ratings showed there were specifically five criteria with overall average scores below the overall average of 2.6.

The team hypothesized that if each of the pilot programs addressed the five criteria listed above on their selected web pages, then the rating of those selected web pages would increase, thus increasing the overall average rating.

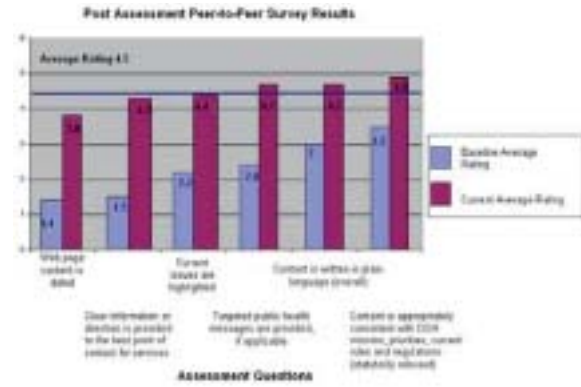
helpful, and complete a peer-to-peer assessment for each of the four programs.

CHECK

7. Check the Results

The team reviewed the results of the pilot improvement. The content checklist feedback indicated that overall, the version piloted was a great resource. Some minor changes were suggested.

The results of the process timeframes were varied. First, the team reviewed the results for updating content. Secondly, the team reviewed the time to edit, review, and post updated web pages. One unintended outcome was the discovery of the substantial amount of time it took one program to update the content on their web pages, primarily due to design changes made as a result of the assessment and the involvement of a new web manager.



ACT

8. Standardize the Improvement or Develop New Theory

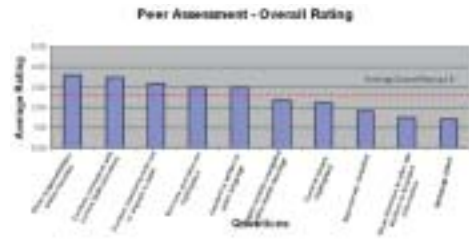
The team recommended the content checklist be finalized and additional qualitative and quantitative data be gathered prior to department-wide implementation. This would allow a broader perspective to be gained through a retest, to ensure the tool would work for the majority of the organization.

The next steps will allow the Office of Performance Improvement to monitor improvements made to web site content over time, and to assess frequency of updates, which will further inform department-wide implementation.

9. Establish Future Plans

As a result of the QI project, the following actions are proposed to be implemented:

- Request additional qualitative feedback from those outside the QI Team (web managers and other content/subject matter experts) (suggested completion date of 1/7/11).
- Use results from feedback to identify potential programs who might consider participating in another pilot, using the content checklist (suggested completion date of 3/31/11).
- After further piloting of the content checklist and any necessary revisions made, it is recommended that policy direction be given to the department that the content checklist be used to update DOH web pages (suggested completion date of 6/30/11).



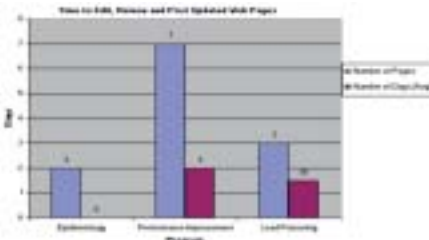
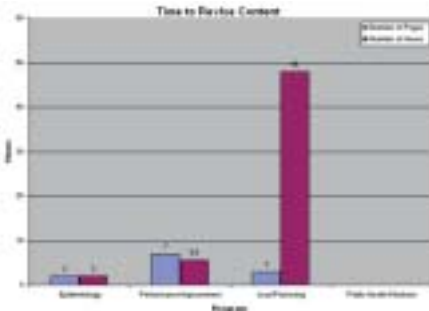
DO

6. Test the Theory

The theory was tested from November 2-16, 2010 through the following actions:

- Developed a content review checklist to update selected web pages (suggested completion date of 3/31/11).
- Communicate policy direction to the department that the content checklist should be used to update DOH web pages (suggested completion date of 6/30/11)
- Used the content review checklist to assess and update website content and accessibility for selected web pages from four programs following the "Current Process for Updating External Website with New or Updated Content" for selected web pages.
- Completed a post-assessment peer-to-peer survey to determine if content and accessibility of information improved.

The participating programs were asked to track the time it took to update content and complete updates of the selected web pages, note suggested modifications to the content checklist that would be



The results from the peer-to-peer assessment survey indicated the content checklist made a positive impact on the content and accessibility rating for selected external web pages for three of the four DOH Programs, improving the average rating from 2.6 to 4.5.

The result of the pilot exceeded the aim of improving the overall rating from 2.6 to 3.5.



Iowa: It's the Media and the Message

As part of its participation in an Association of State and Territorial Health Officials (ASTHO) quality improvement (QI) project funded by the Robert Wood Johnson Foundation, the Iowa Department of Public Health decided that it would take steps to improve its public health messaging. Among the first steps it needed to take, was to define just what a public health message is.

The agency staff made the decision to improve its messaging following a six-month self assessment of its ability to meet the national public health standards that it did in conjunction with the Public Health Accreditation Board (PHAB). “We discovered that we just couldn’t say that Iowans were getting our messages on public health,” says Joy Harris, modernization coordinator of the health agency and accreditation coordinator for Iowa’s participation in the PHAB beta test. “Before the beta test, I don’t think we had doubts about our messaging or whether Iowans were really getting our health messages.”

That is understandable. After all, it was not that the public did not have access to the messages. The agency sends out information regularly in many formats, including newsletters, press releases, publications to partners, emails, and presentations, and it regularly updates its website.

But the agency staff knew instinctively that the act of sending out or posting communications does not guarantee that anyone will read or listen to them. Or, for that matter, that anyone will understand the messages or take actions the agency may have recommended.

Outside their Control

Consider press releases. “We send out six to eight a month on a variety of health related topics,” Harris says. During a particularly busy six month period in 2010, the department sent out 85 press releases, the majority of which were related to the H1N1 threat. Interestingly, many of the newspapers on the press release list often publish the agency’s news releases verbatim. In public relations circles, that is a pretty good record. So what was the problem? In a word, “control.”

The public controls what it reads, and can choose not to read any particular message.


So the challenge was putting together strong public health messages, and ensuring as best they could the messages would be read and understood, given that control is in the reader’s hands. That would be their QI project. “We didn’t pick an easy task.”

Of all the public health message formats, the team chose to focus on press releases to keep the scale of the project doable in the short time they had. They also began by using a fishbone diagram to analyze the many aspects of public health messaging. “The cause-and-effect diagram we drew was very important in helping us understand the process,” Harris says. Among things it revealed: “There are multiple factors that affect the agency’s ability to send out public health messages, prominent among them is a gap in the use of data to inform a public health message, and a lack of a common understanding of what elements a public health message should contain,” Harris says.

The Checklist as a Guide

But the most compelling discovery from the cause-and-effect analysis was a matter of fundamentals. “It all came back to the definition of a health message,” Harris says. There was not a definition. That realization led the agency staff to revise the press release process by developing a checklist that public information officers would ask program experts to complete before writing a press release. The checklist was to ensure that there was a message and that it would come across clearly. Among questions the checklist required program experts to answer: “Is the message newsworthy, timely, of interest to the media and Iowans and of consequence? Does it clearly link to the department’s mission, promoting and protecting the health of Iowans? What is the intended outcome? Who is the audience? Does it identify a health threat?”

Measured against those standards, many previous press releases fell short, says Harris. “For example, every time we get funding we send a press release that talks about the funding, but not necessarily about how the money will be used to help Iowans.”



With the checklist in hand, the department prepared and distributed five press releases with specific health messages as a pilot test. Four of the five met the criteria outlined in the checklist. The fifth was on an enforcement action, an exception the agency staff had not anticipated.

While the agency has not decided whether it will use the checklist in the future, the entire project resulted in several recommendations on public health messaging that agency staff will make to the agency's executive team later this year. Among them: the need for staff training on using data to relay public health messages; the need to develop a common definition of a public health message; the potential of using social media in public health messaging; and the importance of ensuring that the agency's priorities are prominent on its website and in its messages.

The Need to Step Back

Moreover, says Harris, agency staff learned some valuable lessons that will help them in their quest for national accreditation. For example, they learned who the gatekeepers are for certain information, including "program level people with access to data that doesn't get shared."

Staff has to be critical in their thinking and work well with others, Harris says. "We tried to make it fun and encouraged people to say whatever they felt. There were no bad or wrong ideas."

"We also learned," says Erin Barkema, Multi-State Learning Collaborative coordinator, "that as facilitators for a program as broad in scope as ours, we had to stand back and let the QI team decide where they will start." Often, she says, the facilitators would find that a group had gone in a different direction than they expected. "You have to let them find their way," she says.

The agency feels it still has a lot to do, but Harris and Barkema are encouraged about their progress so far. "We now have trained QI champions throughout the health department who will identify areas for improvement," Harris says. One such project centers on compliance reviews for funding. Another focuses on the Medicaid claims process, including how claims get paid.

Overall, Harris and Barkema say that the experience they have gained so far is invaluable in many ways, not the least of which is further motivation for a dedicated staff. "The exercise gets people excited," says Barkema. "They begin to ask why they do things in a certain way. It all improves morale."

Readers can learn more about Iowa's accreditation beta test QI project by reviewing the QI team's storyboard found on the next page. To view the full size storyboards go to:

<http://www.astho.org/Programs/Accreditation-and-Performance/Accreditation/>.



DEFINING A PUBLIC HEALTH MESSAGE

PLAN Identify an Opportunity and Plan for Improvement

1. Getting Started

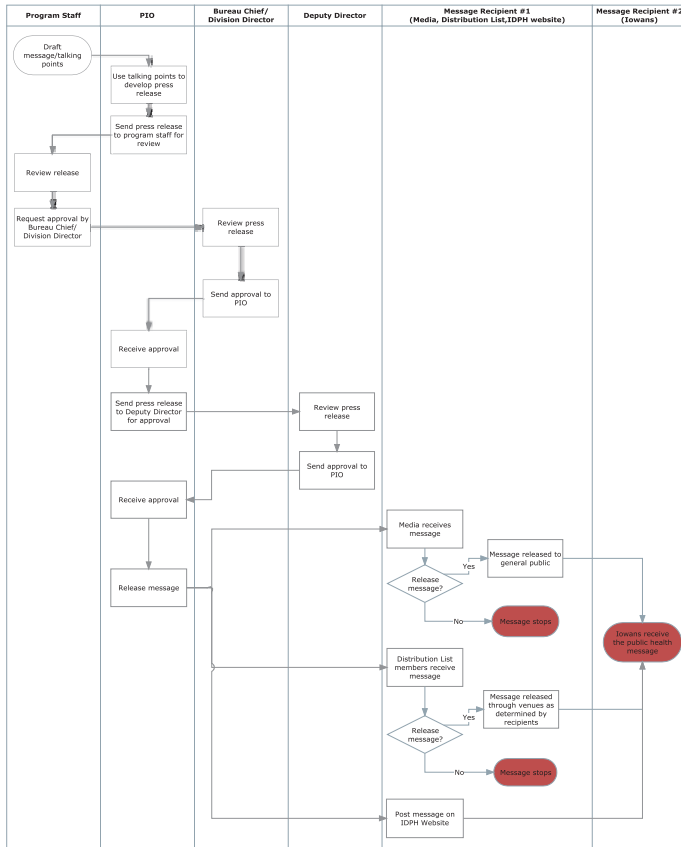
During the Public Health Accreditation Board site visit to the Iowa Department of Public Health (IDPH) several members of the leadership team were asked, "How do you really know for sure that Iowans are receiving your messages?" Several answers were given ranging from; "I don't know" to "We rely on local public health departments to assure that Iowans receive public health messages." This question, along with the variety of responses given, sparked the need to demonstrate that Iowans are receiving IDPH issued public health messages.

2. Assemble the Team

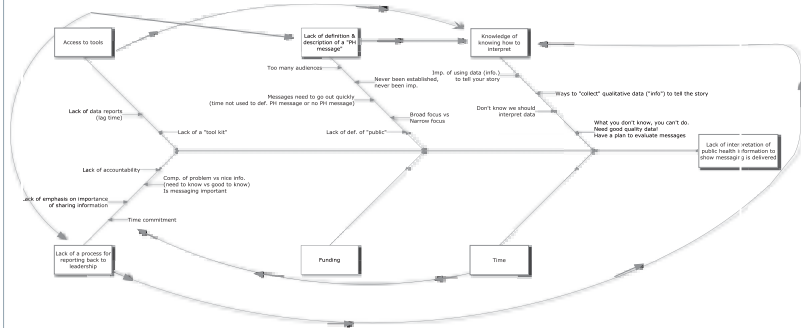
A team of ten individuals, representing five divisions of the department, was assembled. Individuals who regularly seek to communicate public health messages, and who work with contractors of the department to assure delivery of messages were chosen to participate on the QI team.

3. Examine the Current Approach

An initial brainstorming session revealed that there are both formal and informal opportunities for the department to provide public health messages. In order to keep the scale of the quality improvement project small the team decided to address one formal mechanism of public health messaging, the press release. To better understand the press release process, a flow chart was developed.



In addition, the completion of a cause and effect diagram showed the lack of: 1) a common definition of a public health message in the department and 2) tools to help a program expert draft a public health message.



4. Identify Potential Solutions

As shown in the flow chart, all press releases are required to go through a public information officer. One solution was to develop a press release checklist that the public information officer and program expert could use to assure a public health message is in every press release.

Next, an aim statement for the QI project was developed. The aim statement was ~ By January 3, 2011, six of six press releases will meet the criteria established for a public health message as evidenced by the press release checklist.

5. Develop an Improvement Theory

If the individual writing the press release had a checklist to follow while creating the press release then more press releases would have a clear public health message in them.



DO
Test the Theory for Improvement

6. Test the Theory

From December 6, 2010 to January 5, 2011, people involved in creating press releases used the established checklist to assure releases contained a clear public health message.

STUDY
Use Data to Study Results of the Test

7. Check the Results

IDPH evaluated six press releases published in October/November of 2010 (baseline) and five press releases published from December 6, 2010 through January 5, 2011 (pilot phase) against the criteria of the checklist.

In October and November, four of six press releases met all seven criteria during the pre-pilot phase. During the pilot, four of five releases met all of the criteria.

One press release published during the pilot did not meet the criteria. This press release included content about enforcement actions taken against licensed professionals.

Press Release Check Sheet

Criteria	Press Releases (Dec 2010/Jan 2011)				
	PR #1	PR #2	PR #3	PR #4	PR #5
Criteria 1	X	X	X	X	X
Criteria 2	X	X	X	X	X
Criteria 3	X	X	X	X	X
Criteria 4	X	X	X	X	X
Criteria 5	X	X	X	X	-
Criteria 6	X	X	X	X	-
Criteria 7	X	X	X	X	X
Total	7	7	7	7	5

ACT
Standardize the Improvement and Establish Future Plans

8. Standardize the Improvement or Develop New Theory

It is unclear at this time if the checklist will continue to be used for formal press releases, or if it will be used for training those individuals who write informal public health messages without the assistance of a public information officer. Both public information officers felt that the checklist could be shorter, and still be just as effective.

9. Establish Future Plans

Ten recommendations from the quality improvement team regarding public health messaging will be presented to department leadership in 2011. Some of those recommendations include: 1) awareness and interpretation of the department's general conditions and the requirements for department contractors regarding messaging 2) staff training on interpreting messaging data 3) staff training on using data b relay public health messages 4) develop a common definition of a public health message 5) staff training on creating and presenting public health messages 6) an IDPH domain name easier to remember and 7) encouraging use of public information officers when developing informal and formal public health messages.





Michigan: Enlisting Local Health Departments in the Quality Crusade

As state health agencies prepare for national accreditation, they know that meeting quality standards cannot be accomplished without strong participation from Local Health Departments (LHDs) that bear a major responsibility for delivering essential services.

That thinking clearly influenced key staff at the Michigan Department of Community Health (MDCH) last year as they considered ideas for a quality improvement (QI) project following participation in the accreditation beta test administered by the Public Health Accreditation Board (PHAB). The agency's self-assessment of compliance with the PHAB standards, as well as the beta test site visit, revealed that MDCH fell short in meeting PHAB's Domain 9 standards, which embrace QI infrastructure.

However, it did not take long for the Michigan team to identify a tool that could make a real difference: the state's Accreditation Quality Improvement Supplement (QIS), which includes 10 "stretch" standards designed to foster a culture of continuous improvement in LHDs. Since QIS aligns closely with PHAB's Domain 9 standards, getting more LHDs to embrace this voluntary process could be a significant step in moving Michigan toward national accreditation.

"We brainstormed ideas and concluded that a project involving QIS not only related directly to Domain 9, but was also suitable for the 'Plan, Do, Check, Act' (PDCA) methodology that we wanted to use," recalls Debra Tews, the Senior Accreditation and Quality Improvement Manager for MDCH.

In addition, such a project could be accomplished in the tight, six month time frame specified by the QI grant, funded by the Robert Wood Johnson Foundation and administered by ASTHO. Says MDCH Accreditation Coordinator Mary Grace Stobierski, "We had to dismiss larger-scale projects that would have involved collaboration with other entities outside our sphere of influence."

Establishing a Baseline

"Still another key reason for targeting QIS was that the QI team itself was made up of several people with direct responsibility for overseeing and improving the QIS process," notes Mark Miller, a team member who is Director of the MDCH Office of Local Health Services. For example, several team members are QI experts, including staff associated with the Michigan Public Health Institute (MPHI), a nonprofit organization directly involved in Michigan's Accreditation Program.

What the QI team found as it began its PDCA exercise was that only 31% of the state's 45 LHDs were participating in the QIS initiative. As the chief goal for their QI project, the team wanted to put improvements in place that would boost the percentage of participants by 50%.


To get a better understanding of the problem, the QI team put together a process map that outlined the steps MDCH took to prepare LHDs for participation in the QIS process, such as requirements for submission of materials. Next, to get at the root causes of non-participation, the team constructed a fishbone diagram that listed what they felt were the major reasons that LHDs were not participating. In that exercise, they used the "5 Whys" technique to drill down deeper into the root causes.

"We were focused on using QI tools," says Tews. "We wanted a very scientific, deliberate process."

The fishbone diagram identified such issues as time burdens on LDH staff, doubts about their ability to meet tougher standards, their need for more technical assistance, and the voluntary nature of the QIS program.

Answers from Local Departments

But the work did not stop with this internal assessment. The team distributed a survey to all 45 LHDs, seeking their input on the primary causes for non-participation. The survey listed several of the factors found on the



fishbone diagram. It also included questions tailored to two different groups: departments that had participated in QIS and those who had not.

Survey results showed that the two biggest reasons for non-participation were the time burdens in preparing for QIS, and the lack of available training and assistance.

Says Tews: “To participate in the QIS process, LHDs need to have QI plans and policies, as well as measurable goals and objectives—and they actually need to demonstrate the use of formal QI methods. But we found that QI resources at the local level are constrained, especially in terms of staff time. Local health departments need help with constructing QI plans, preparing customer satisfaction surveys, and developing slide presentations to move forward and engage local governing entities, like Board of Health members.”

With the results of the survey in hand, the team posed a series of “if-then” questions to sharpen their theory for improving QIS participation. For example, if MCDH were to provide templates, samples of best practices, and other resources to the LHDs, then QIS participation would increase.

Designing the Deliverables

To put their theory to work, the QI team developed and distributed a comprehensive packet of sample materials and templates to LHDs, including: a QI plan, a QI policy, sample goals and objectives, a QI presentation, a customer satisfaction survey, and a QI project tracking template. They accomplished all this in a tight, one-month window ending in early December 2010.

Reaction from departments was very positive. Miller points to feedback from a survey of 13 health officers whose departments are scheduled for a 2011 accreditation on-site review. As a result of the new materials and resources, the survey showed a 50% increase in the number of LHDs planning to participate in QIS.

But the benefits of the project went beyond helping LHDs boost their QI capabilities. The project also showed the value of a team approach and gave staff at MDCH more experience in using QI tools, such as the PDCA methodology. Tews notes that “when you’re able to apply a structured approach and gather good data, it definitely affects your results.”

For example, the results of the LHD survey that probed reasons for not participating in the QIS process differed somewhat from the QI team’s early assumptions/postulations of the problem. “We initially thought that hesitancy to participate in QIS had more to do with fear of not being able to meet the standards, but the data showed that time, staffing, and resources were the real issues,” says Tews. She adds that MDCH’s new Director, Olga Dazzo, is a strong supporter of such data-driven strategies, as well as tools for gauging measurable outcomes in health programs.

Michigan still must fulfill prerequisites on the road to national accreditation, such as completion of a state health assessment and development of state health improvement and agency strategic plans. Even so, team members say that last year’s QI project provides a good model as the department takes on new improvement efforts. These include such areas as infant mortality and obesity, identified as top priorities by new Governor Rick Snyder.

Readers can learn more about the Michigan Department of Community Health’s accreditation beta test QI project by reviewing the QI team’s storyboard found on the next page. To view the full size storyboards go to: <http://www.astho.org/Programs/Accreditation-and-Performance/Accreditation/>.

Michigan Department of Community Health Storyboard



Increasing Year 3 Local Health Department Participation in the Voluntary Accreditation Quality Improvement Supplement

PLAN

Identify an Opportunity and Plan for Improvement

1. Getting Started

PHAB Beta Test results indicated the Michigan Department of Community Health (MDCH) was unable to demonstrate conformance with most standards in Domain 9. As part of the Michigan Local Public Health Accreditation Program (MLPHAP), local health departments (LHDs) have the opportunity to voluntarily participate in a Quality Improvement Supplement (QIS). The QIS aligns closely with PHAB Domain 9. Over the past year LHD participation in the QIS has decreased. To prepare LHDs for National Accreditation, the QI Team decided to focus on increasing the number of LHDs participating in the QIS.

2. Assemble the Team

The members of the QI Team were initially selected to work on the MDCH NPHPSP Project in 2009. Collectively they represent infectious disease, chronic disease, and administrative areas. They partner with the state's public health institute (MPHI), participants in the MLC projects and Michigan's LHD accreditation activities. Because the NPHPSP collaboration was successful, we retained the same team for the PHAB Beta Test and subsequent QI project.

AIM Statement

In order to promote good public health practice, advance Michigan's accreditation program, and prepare local health departments for participation in the voluntary national accreditation program, the MDCH Office of Local Health Services will increase Cycle 4 (year 3) LHD Participation in the Accreditation Quality Improvement Supplement (QIS) over year 2 by 50% or greater.

3. Examine the Current Approach

Accreditation via the MLPHAP is mandatory. However, QIS participation is voluntary; results do not affect a LHD's accreditation status. When a LHD

opts to participate, the decision is reflected in the advance pre-materials the LHD submits to the MPH, which then shares the decision with accreditation reviewers via the MLPHAP web-based reporting module. The current approach is depicted in the process map that follows.



To identify the root cause as to why all LHDs are not participating in the QIS, the team created a fishbone diagram.

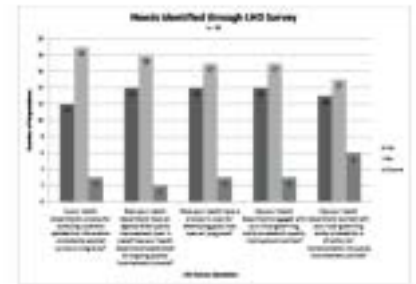


SAMPLE FISHBONE DIAGRAM

4. Identify Potential Solutions

When examining the current approach, the QI team identified a need to collect additional data to further drill down on the root cause(s) as to why all LHDs are not participating in the voluntary QIS. The team distributed a survey which addressed several of the factors listed on the fishbone diagram to help

determine whether they played a strong role in a LHD's decision to participate in the QIS. The survey went to all 45 Michigan LHDs. Based on survey results, the team identified the needs depicted in the following graph.



5. Develop an Improvement Theory

Given the diverse set of needs identified, the QI team developed several improvement theories. Further examination of survey results directed the team to select an improvement theory that would enable them to address several areas of need through one activity.

Improvement Theory

If we make available QIS resource materials, including standardized templates and samples of evidence/best practices for key components of the QIS, then an increased number of LHDs will report their intent to participate.

DO

Test the Theory for Improvement

6. Test the Theory

The QI Team implemented a rapid test to gauge LHDs' interest in participating in the QIS during the remainder of Accreditation Cycle 4. Since final outcomes will not be measurable until mid-2011 (the last date a LHD will have to indicate participation in the QIS), one member of the QI team called Health Officers from the 13 LHDs that have not completed Cycle 4 Accreditation to ask if the improvement theory would encourage their QIS participation. Pre- and post-test results are displayed below.

Test Phase	# Indicating "Yes"	# Indicating "No"	# Indicating "Unsure"
Pre-test	3	2	4
Post-test	6	1	6

In addition to implementing the QIS phone survey, the QI Team developed several templates and collected best-practice documents that would serve as examples of the types of evidence sought in the QIS. The templates and LHD examples were combined into a LHD Example Packet to be emailed to the 13 LHDs being reviewed in 2011.

be posted on Michigan's Accreditation Website. The QI Team will continue to track participation in the QIS and further evaluate the impact of the QIS Templates and LHD Examples Packet. Using a PDSA approach, future revisions will be made to the packet or other steps in the process as necessary.

CHECK

Use Data to Study Results of the Test

7. Check the Results

Following the test of the improvement theory, six LHDs indicated that they planned on participating in the QIS, with several more remaining undecided. A result of six "yes" responses meets the QI team's AIM statement. The QI team views the test results as successful.

Additionally, ten LHDs indicated that making the QIS Templates and LHD Example Packet available to them will help them prepare to participate in the QIS.

ACT

Standardize the Improvement and Establish Future Plans

8. Standardize the Improvement or Develop New Theory

The finalized QIS Templates and LHD Examples Packet will be distributed via email to the 13 LHDs scheduled to have their Accreditation On-site Reviews in 2011. The effectiveness of the QIS Templates and Examples Packet will be evaluated in the fall of 2011. The packet will be modified based on any further needs that are identified and will be adopted as a standard set of materials for Accreditation Cycle 5. Additional theories for improvement will be developed and tested as necessary.

9. Establish Future Plans

The QI Team will move forward with distributing the QIS Templates and LHD Examples Packet to the thirteen LHDs undergoing Cycle 4 Accreditation Reviews in 2011. The materials will also

Mississippi: Taking Aim at Smoking

When Dr. Mary Currier was named State Health Officer in January 2010, the Mississippi State Department of Health (MSDH) had already launched a very important initiative: Participation as one of eight state health department beta test sites for a new national public health agency accreditation process.

The beta test gave the department an opportunity to assess its strengths and weaknesses as it moved toward the goal of future accreditation by the Public Health Accreditation Board (PHAB). Moreover, an adjunct quality improvement (QI) project launched by ASTHO in May 2010 and funded by the Robert Wood Johnson Foundation gave MSDH staff a valuable opportunity to explore the skills and processes needed to make gains on a targeted problem area.

“We needed a project that could be reasonably implemented in a short time frame and also related to one of PHAB’s public health performance standards,” recalls Margaret Morton, director of field services for MSDH and overall coordinator for the accreditation beta test in Mississippi. In that regard, Dr. Currier was quick to suggest the issue of clinical intervention policies to promote tobacco cessation. “She was really the first to pose the question of just how we advise individuals coming into health departments about the dangers of tobacco use,” adds Morton.

Too Many Smokers

As the MSDH team began its “Plan, Do, Check, Act” (PDCA) process for QI, Dr. Currier’s question clearly hit home. The Centers for Disease Control and Prevention’s (CDC) 2009 Behavioral Risk Factor Surveillance System phone survey had revealed that 23% of Mississippi respondents identified themselves as smokers. That’s well above the U.S. Department of Health and Human Services’ Healthy People 2010 goal of holding the percentage of adult smokers to no more than 12%.

The problem also loomed large as the MSDH QI team gathered its baseline data in June 2010 for the QI project, which targeted individuals seeking family planning assistance from the state’s 81 county health departments. Only 17 of the departments – 21% -- had made direct referrals to the state’s quit line during the prior 12 months. One county, Lee, had made no referrals, yet a sample of 30 health records from family planning clients at that county’s health department revealed that 40% of the people identified themselves as tobacco users.

“We did not have uniform, department-wide policies and procedures to promote tobacco cessation clinical interventions in our county health departments,” notes Morton.

“Our clinical staff were asking clients if they used tobacco, but the process stopped there.”


Framing a New Policy

In addition to Morton, the team assembled to address this policy challenge included representatives from the MSDH tobacco control program and health services policy development, as well as public health nurses and data collection and editing specialists.

The team’s working assumption: If clinical staff at health departments received education and support materials, they would be better able to incorporate a proven best practice intervention for tobacco cessation with their clients.

To test their theory, the QI team focused on the Lee county health department and its public health nurses providing family planning services. In September 2010, the nurses received instruction, based on the CDC’s “5As” tobacco cessation model for contacts with clients: Ask, Advise, Assess, Assist, and Access. In CDC’s experience, individuals are more likely to quit if they have a one-on-one discussion with a clinician who follows these 5As. Meanwhile, the QI team began formulating a new policy based on the 5As and also surveyed what some other public health departments were doing in similar tobacco cessation efforts.

In mid-September, the Lee county family planning nurses began implementing these new procedures in their contacts with clients. “The reports we got back from the nurses were that the new approach did not take an excessive amount of time,” which was one of our main concerns,” says Morton.



Finally, to test the results of the QI effort, the team in late November pulled records from another 30 Lee county health department clients seen in the weeks following implementation of the new guidelines. That data revealed that 14 clients (46% of the sample) identified themselves as tobacco users, and the nursing staff had advised 12 of them (86%) of the quit line services.

Based on that success, MSDH developed new best-practice procedures that were included in a new policy manual distributed statewide to all health department clinical staff in Spring 2011. Because quit line personnel themselves are responsible for assessing and assisting tobacco users who come into the program, the new policy directs clinical staff to focus on asking clients if they are tobacco users, advise them of the dangers if they are users, and then refer them to the quit line.

Laying the Groundwork for Accreditation

Looking back on this QI project, the team views it as a clear success. “Our tobacco control staff wondered why we hadn’t implemented it earlier,” says Morton, who adds that the project did pose time and resource challenges to the team.

MSDH does not yet have an established performance management or QI office, so there are limited resources to take on QI projects. However, the agency has applied to CDC for funding to establish a QI infrastructure, including two dedicated staff. The QI project provided important lessons to MSDH staff to help shape future projects, such as the need to include the appropriate staff and to clearly define what the problem is and how to measure it. It also underscored the need to carefully determine available resources and how to use them efficiently on a QI project. Resources are a key consideration in this large, complex agency that embraces nine districts, 81 local health departments, and serves a large public need, including 100 centers that provide services for women, infants, and children.

Among the many areas that could be targeted for future QI projects: A clinical education update for nurses, nurse practitioners and physicians on physical assessments and treatments for sexually transmitted diseases; as well the establishment of a uniform quality assurance system for the state’s county health departments.

Readers can learn more about MSDH’s accreditation beta test QI project by reviewing the QI team’s storyboard found on the next page. To view the full size storyboards go to:
<http://www.astho.org/Programs/Accreditation-and-Performance/Accreditation/>.

MISSISSIPPI STATE DEPARTMENT OF HEALTH

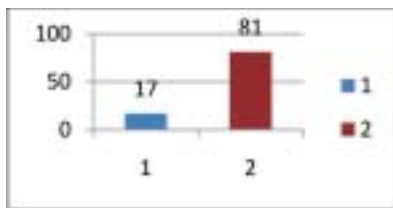
IMPROVING PUBLIC HEALTH PRACTICE BY INCORPORATING THE 5A'S CLINICAL INTERVENTIONS FOR TOBACCO ASSESSMENT AND CESSATION

PLAN

Identify an Opportunity and Plan for Improvement

1. Getting Started

- Tobacco use is a leading preventable cause of chronic disease morbidity.
- 23% of Mississippi responders to the 2009 BRFSS identified themselves as smokers.
- 40% of individuals receiving family planning initial/annual services were identified as current tobacco users. The Healthy People 2010 objective is = or > 12 percent.
- The MSDH is advancing an opportunity to improve a systems approach to incorporating the 5A's best practice clinical model into direct public health services at the county health department.
- Evidence of only 17 of 81 (21%) of county health departments having made direct Quitline referrals within prior twelve months.



- No documented Quitline referrals received by Quitline from Lee County Health Department.

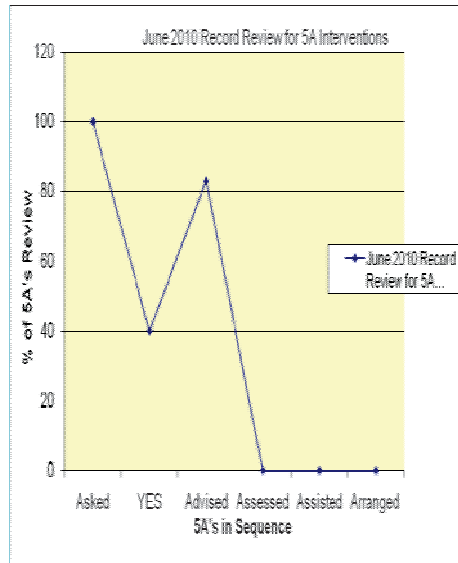
2. Assemble the Team

- Kay Henry, Field Services: data collection & local coordination.
- Roy Hart & Vicky Tucker. Tobacco Program: develop policy, coordinate training, & assure referral/ed materials.

- Amy Burrow: review & edit data and support, policies & procedures, manual changes.
- Melanie Bishop, Tobacco Program: initial brainstorming
- Terry Beck - Health Services: policy development & review.
- Margaret Morton, Field Services: team coordination & reporting.

3. Examine the Current Approach

- Obtain baseline data



- No MSDH agency policy or PH clinical standards currently implemented.
- Related provided to CHD staff about 2 yrs ago.
- No educational materials or standard referrals consistently available to CHD's.
- MSDH program forms for direct service delivery not updated to reflect best practices.
- Record review (limited in size; 30 review with 12 users identified) indicates that 40% of FP clients are tobacco users; no documentation for tobacco cessation, ready to quit assessment, or Quitline referral documented in care process to 12 identified tobacco users.

4. Identify Potential Solutions

- Develop MSDH policy incorporating evidence based practices into clinical processes for all county health department providers.
- Provide current evidenced based education on tobacco assessment and cessation to CHD clinical providers.
- Establish standard educational materials & incorporate use of MS Quitline referral forms as available through central supply.

5. Develop an Improvement Theory

If MSDH organizational policies, procedures and clinical standards are implemented and if related staff education is provided, then the best practice tobacco cessation evidenced based practice will be incorporated into CHD clinical practice.

DO

Test the Theory for Improvement

6. Test the Theory

- Education on evidenced based practices using the CDC 5A's tobacco cessation model provided by the MS ACT Center Staff to Lee CHD public health nursing staff on September 17, 2010.
- Draft MSDH policy on tobacco assessment and cessation developed for services provided delivery through CHD mid September, 2010.
- Data, using initial data collection form, will be obtained by medical record review of at least 12 FP patients receiving initial/annual FP services and identified as current tobacco users, will be collected the last week of October, 2010 to evaluate related QI measurable goals.

CHECK

Use Data to Study Results of the Test

7. Comparative data following education and draft policy

5A's	Baseline	5A's Implement	Follow-up
	Jun-10	Sept - Nov	Nov-10
Asked	30 of 30	100%	100%
"Yes"	12 of 30	40%	46%
Advised	10 of 12	83%	86%
Assessed	0 of 12	0%	0%
Assisted	0 of 12	0%	64%
Access	0 of 12	0%	0%

Goal number 1 – Met

Clinical intervention to “ask” 100%: 30 of 30

Goal: sustain a minimum of 90% or > to ask if tobacco user
**** increase in id of tobacco users from 40% to 46%**

Goal number 2 – Goal Not Met, though improvement noted

Clinical intervention of 5A to “advise”: 83% (10 of 12)

Measurable improvement goal to increase to 90% or > following policy & clinical education

Goal number 3 – Goal Not Met, No Improvement

Clinical intervention of 5A to “assess” readiness to quit was 0% (0 of 12)

Measurable improvement goal to increase to 30% or > s following policy and clinical education

Goal number 4 – Goal Met with Significant Improvement Noted

Clinical intervention of 5A to assist was 0% (0 of 12)

Measurable improvement goal to increase to 30% or > within eight to ten weeks following policy and clinical education

Goal number 5 – Goal Not Met, No Improvement

Clinical intervention of 5A to “access” was 0% (0 of 12)

Measurable improvement goal to increase to 30% or >.

- Verbal report from 4 public health nurses who implemented

the 5A's that time effort to include 5A's was not a barrier. A request was made for health education materials more consistently available and appropriate to target audiences. Comments on implementing were favorable and recognized as public health significance.

ACT

Standardize the Improvement and Establish Future Plans

8. Standardize the Improvement or Develop New Theory

Based on results of goals met & unmet and evaluation of processes and resources, the decision to standardize tobacco assessment and cessation will be modified and implemented in policy as the “2A's+R” as adopted by another statewide public health agency.

- The “2A's+R” includes ask, advise and refer. Direct referral for cessation intervention is based on readily available and no cost support through the MS Quitline and is designed to assess willingness to quit and optional interventions to quit, appropriate follow-up, etc.
- Request program make standard health ed materials available through MSDH central supply.
- Revise patient care program forms to reflect 2A's +R interventions when indicated.

9. Establish Future Plans

- Complete revisions to draft policy and procedures and route for standard review and signature.
- Provide education/training on the clinical interventions to all county health department staff that currently have direct encounters with individuals receiving public health services.
- Provide education/training at central office to include all programs and discipline leadership to align program

policies, discipline awareness and support.

- Work directly with Office of Performance Management and Quality Improvement to continue advancement of this project as this office is established in Jan. 2011.
- Continue to apply evidenced based and promising practices.



November 2010



Ohio: No Lost Babies

When managers of local health departments (LHDs) sit down to plan everything from clinical services to education campaigns, they base many of their decisions on vital data describing the populations they serve.

So as the leadership team at the Ohio Department of Health (ODH) last year weighed potential quality improvement (QI) projects stemming from results from participating in the PHAB accreditation beta test, they quickly zeroed in on one issue: Provide faster and more accurate data to their customers, the state's 127 LHDs.

"Our team broke into small groups to assess how ODH measured up against PHAB's domains covered by the accreditation process, and the theme that came up over and over again was the need to get good, timely population-based data to the LHDs," recalls Kelly Friar, chief of vital statistics for ODH and the agency's coordinator for the 2010 accreditation best test. "And birth data in particular is essential, because it is an important foundation for population based health data, which LHDs need to serve their clients better."

Capturing Out-of-State Data

As Friar explains it, birth data is important because it embraces the entire perinatal experience, including the aspects of prenatal care, overall health of the newborn, and conditions after delivery, such as breast feeding, infant weight gain, vaccines, and more. "In effect, birth data functions much like a person's first medical record," notes Friar, "the standard for collecting birth data is established by the National Center for Health Statistics."

In a typical year, ODH receives approximately 140,000 birth records with perinatal data from Ohio birth centers. But what had eluded ODH was getting timely data on some 2,800 annual births involving Ohio mothers outside the state. In many cases, such births occur in hospitals just across the border. Several Ohio counties have 20% or more births taking place outside the state; for one county, the rate is 97%.

The problem, however, was that it could take up to 24 months for this out-of-state birth data to be recorded and disseminated by ODH. Finding a way to substantially close that gap seemed a realistic target for the ODH team in the short, Fall 2010 timeframe for the QI project. Team members, who met weekly, included representatives from the Office of Performance Improvement, Office of Information Systems Management, The Office of Vital Statistics, the Center for Public Health Information Systems and Informatics, the Local Health Liaison, and registrars from select LHDs.


As part of the "Plan-Do-Check-Act" (PDCA) process for their QI project, funded by the Robert Wood Johnson Foundation and supported by ASTHO, the ODH team relied on several tools and processes. These included: a flow chart on how the state created its annual file of birth information, as well as root cause analysis on possible sources for delays. That analysis led to a hypothesis about the nature of the problem and possible solutions.

"Our initial assumption was that much of the problem could be traced to having to wait for other states to send us this birth data," recalls Friar. "That turned out to be myth."

Taking a Closer Look

Using a Pareto diagram, the ODH team found that five states nearest Ohio accounted for about 85% of the out-of-state births. Comparing the timeliness of birth data that ODH received from these states with how fast those states sent the same data to NCHS, the team found that the states were indeed quite prompt in sending their data to Ohio.

"That put an end to our notion that there wasn't much we could do in Ohio because we couldn't control what other states were doing," says Friar. The real problem, as revealed in a histogram of when ODH actually keyed data into the system, was that the department did not have a regular schedule for entering out-of-state records. In fact, most data was not entered until year-end. There was little sense of urgency, since other states had already reported this data to NCHS. "We really weren't looking at things from the perspective of our customers, the LHDs," notes Friar.



With its new understanding of the problem, the team revised its improvement strategy. Its new elements: Enter out-of-state data into the birth registration system within five business days of receipt, and, secondly, monitor the timeliness of data sent by other states on a monthly basis. Finally, at any given time, ODH wanted to be sure that it had entered at least 80% of the data that was sent by other states to NCHS for the same births. Typically, states forward birth data to NCHS on a weekly basis.

A big benefit of the new system is that LHDs can access information about out-of-state births as soon as the data is keyed into the system, just as with in-state births. That can improve decision-making for a whole host of LHD issues.

Building on Success

Though the QI project had to be tightly scoped to be accomplished in 90-day time frame, Friar views the effort as a clear success. The project can potentially shave 640 days off the time it once took from date of birth to data dissemination to LHDs. ODH is continuing to improve timely data delivery through several statistical automation efforts underway at the Center for Public Health Information Systems and Informatics with the goal of enabling LHDs to access most data within three months of birth date.

“Team members also experienced success in learning more about the PDCA process and the use of QI tools,” explains Friar. “We moved from discussing a dilemma that we believed we could not control to making a dramatic, positive impact.”

As ODH looks ahead to the formal accreditation process, the department already has in place the framework for future QI projects via the Office of Performance Improvement, which helped develop the agency’s overall strategic plan.

Ultimately, ODH wants to embrace performance and QI as a guiding management philosophy. The Office of Vital Statistics, for example, is already leveraging lessons learned from the birth data project. Among new initiatives: A project aimed at reducing refund costs on vital records and another focusing on improving the quality of birth record data, including better estimates of gestational age.

“No matter what the improvement project, a big lesson that we’ve learned is that everything starts with gathering solid data,” concludes Friar. “Unless you are willing to dig into the data and use it to challenge assumptions, you may go off in an entirely wrong direction.”

Readers can learn more about ODH’s accreditation beta test QI project by reviewing the QI team’s storyboard found on the next page. To view the full size storyboards go to:

<http://www.astho.org/Programs/Accreditation-and-Performance/Accreditation/>.



Ohio Department of Health

No Lost Babies: When residents of Ohio give birth out of the state

PLAN

Identify an opportunity and Plan for Improvement

1. Getting Started

Identifying the problem: We used a brainstorming process at our Leadership Team Meeting to generate project suggestions. During the meeting, we gathered in groups based upon PHAB Domains of interest. Each group discussed what ODH does well and what needs to improve relative to that Domain. As a whole, the Team utilized a “vote with your dots” process to pick a process to improve based upon 1) what would improve service to local health districts (our customers), and 2) what was achievable within the tight time frame. The need to get fast and accurate data out to local health departments was the clear winner, and we decided to start our process improvement by focusing on birth data.

Local Health Departments have access to birth data in three ways: extracting their own residents’ data from the birth system, custom data requests completed by our data center and the ODH data warehouse. The statistical tabulations in the data warehouse take at least 12 months of work to prepare once the year closes. The result of this time lag is that data (in aggregate form) from a birth happening on Jan.1, 2009 is not available until Dec. 31, 2010, a long cycle time of 24 months or 730 days. We chose to tackle the turn-around time for receiving and inputting out-of-state births into the birth system.

70 out of 88 counties in Ohio had at least one resident give birth out-of-state. 10 counties have 10% or

more of their births out of state. Eight counties are between 5-10%.

Identify the output:

Timely data about births that occur to Ohio residents outside of Ohio.

Identify the customer: The 135 local health departments of Ohio.

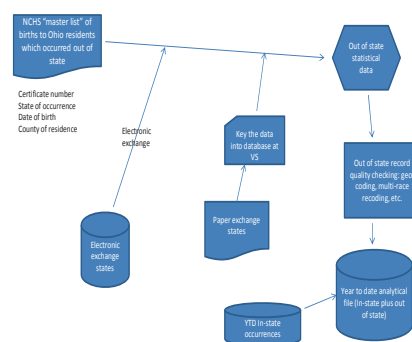
Identify Goal: Our AIM statement was to improve cycle time from 18 months after the close of a calendar year, to a quarterly data set available three months after the last day of the previous month, by June 30, 2011.

2. Assemble the Team

Team members were selected due to their expertise in the current process: John Paulson – Team Lead, Inez Williams, Conrad Michael, John Chapman, Nate Huskey, Greg Buskirk, Judy Nagy, Suzie Grayson, Angie Jenkins, Joe Mazzola, Executive Sponsors: Bob Campbell, Lynnette Cook, Facilitator: Kelly Friar.

3. Examine the Current Approach

Inter-jurisdictional receipt of Ohio resident births

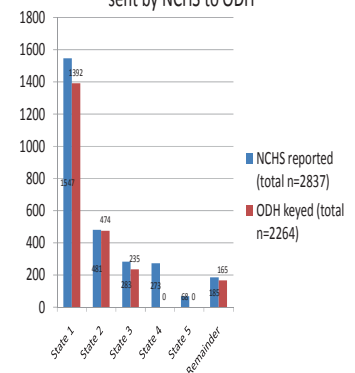


The process flow above depicts the creation Ohio’s annual statistical file. We did not place a priority on

receiving and keying out-of-state births, because they are not required by NCHS. Correcting and analyzing births that happen in Ohio and that are entered in our system at the point of service (birth clerk in hospital or by local registrar for out of hospital birth) are a priority, and represent 98% of Ohio resident births. We also assumed that most states did not send birth data timely, and that they were the hold-up in closing an annual file.

4. Identify Potential Solutions

2009 OOS births by state of birth: Entered into IPHIS as of 9/24/2010 compared to counts of OOS birth occurrences sent by NCHS to ODH



Source: Ohio Department of Health, Center for Public Health Statistics and Informatics

When we analyzed data regarding two performance metrics 1) the arrival of out of state data on a consistent basis throughout the year and 2) timeliness – how many days from date of birth, to registration, to arrival at VS, we realized that our assumption was not quite accurate and that improvement was possible. The Pareto diagram above shows that for the year 2009 we had received a majority of birth records (according to NCHS) for our top five out of state births by the fall of 2010. One potential solution was to use the Natality Incident Extract from NCHS on a regular basis to track which states owe birth data, and to follow-

up with them on a regular basis throughout the year.

5. Develop an Improvement Theory:

Our simple theory was that states would be responsive if we just called them and requested the records.

DO

Test the Theory for Improvement

6. Test the Theory

We called States No. 4 and 5, and within two weeks received 175 records for both 2009 and 2010 from No. 4 and nothing from No. 5. We realized that this was not going to really move the needle on our performance goal.

Going back to PLAN

We cycled back to Plan in PDCA and analyzed current 2010 data to see where other opportunities for improvement might lie.

For out-of-state births starting January 1, 2010 to the present, we learned that the top two states were consistently sending birth records on a periodic regular basis throughout the year. This was determined by days between birth date, file date and date we keyed it. The top two states were also fairly quick in their filing process, just days from date of birth to registration at the state office. We also examined our turnaround time by looking the time span from date of birth to keying into the Ohio system. We did not have a regular schedule to enter records (some waited months), but we wanted to try to enter them within five of arrival at our office.

7. Test the Revised Theory:

If we key the data within five days of receipt and monitor the timeliness of state sends, we could improve the process cycle time by several months.

CHECK

Use Data to Study Results of the Test

We instituted the new process of entering records within five days of

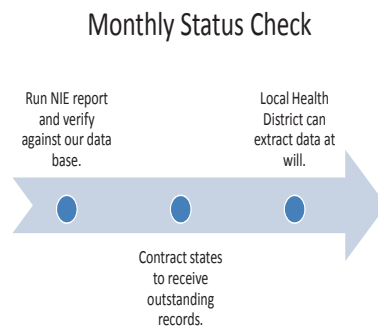
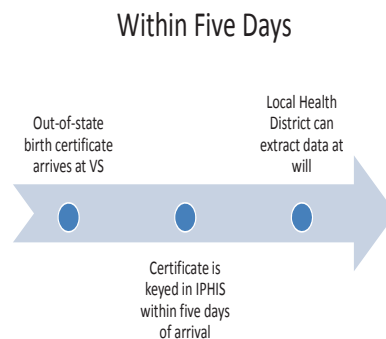
receipt. We also began logging in all records on the date they were received. We are also using the NIE list to generate follow-up letters to states requesting specific certificates by the states registration number. Our data analysis shows that we are keeping up with the work load year to date, and so are the top two states which constitute the majority of out of state births. We have received and keyed in 79% of the data available from other states according to the National Center for Health Statistics.

ACT

Standardize the Improvement and Establish Future Plans

8. Standardize the Improvement Or Develop New Theory

We designed a new work flow to improve our two metrics. We will check the receipts against the NIE monthly list and follow-up with late states via letter listing the registration number of the missing record and we will key all data within five days.



Once the data is keyed, it is available for local health districts via the existing Resident Birth out of District extract function. It is as close to real time as possible within our span of control. What previously was unavailable is now available for local public health use within weeks of the birth. This facilitates home visits and other public health planning and program evaluation. We surpassed our goal of improving cycle time from 18 months to approximately 3 months after the last day of the previous month, by June 30, 2011. We can provide the data within zero to five days of receipt.

9. Establish Future Plans

This spring we will develop webinar training for Local Health Departments on how to extract their data and present a workshop at the spring public health combined conference.

We will also developing customized and "canning" real-time data extracts directly from the data base, for locals to access.

Oklahoma: Community Involvement is the Key

Thanks to an Oklahoma State Department of Health quality improvement (QI) project, community sector involvement in health care meetings has jumped 75%, greatly increasing community engagement in health improvement planning for at least one county health department, and setting the stage for similar increases in involvement in other counties.

The Oklahoma State Department of Health is a centralized organization that includes 68 county health departments as well as a central state office. Through its participation in the Public Health Accreditation Board's (PHAB) beta test, the state health agency noted that it met the prerequisites of a health assessment, health improvement plan, and strategic plan for the agency, and thus would qualify to apply for accreditation by PHAB. But, it discovered that its county health departments did not have the core components for accreditation. "We had some idea that this would be the case after we went through the PHAB standards," says Joyce Marshall, director of the Oklahoma State Department of Health's Office of Performance Management and state accreditation coordinator, "so we decided on a QI project to help improve local community engagement." The target community for the pilot project, which the agency implemented with support from ASTHO and with funding from the Robert Wood Johnson Foundation, was Comanche County.

Buy-in is Critical

The county health department would need buy-in not only from the department staff, but also from local partners, including schools, law enforcement, business groups, civic organizations, media, and others to support and contribute to the development of these core accreditation components. That posed a potential problem.

In general, while there were officials and citizens at the county level who had expressed goals for improving public health, they did not have a concrete community assessment or health improvement plan for achieving those goals, or ways to measure those achievements. Root cause analysis showed that community leaders, who were extremely busy with their other duties, needed to see the value of their engagement in the health improvement planning processes before true buy-in and collaboration would result. Marshall and her team at the agency saw that as a critical item to address. "We really needed local buy-in and we needed the communities to know that plans for improving the health of the community would be their plans, based on the needs of their community," Marshall says.


Agency staff knew that tools such as its STEP UP (Strategies Toward Excellent Performance-Unlimited Potential) performance-management system and MAPP (Mobilizing for Action Through Planning and Partnerships) would help the counties complete community health assessments and health improvement plans that aligned with the overall state plan. Still, there was the buy-in issue.

Making the Meetings Meaningful

It was decided to address this by gaining stakeholder input in a number of ways, including through a survey. Agency staff adapted a meeting effectiveness survey developed by a national QI consultant, and asked all community health coalition meeting attendees to complete the survey after each meeting. Some of the questions on the survey form were: "To what extent were the goals for the meeting clear? To what extent was discussion open, with sharing of diverse ideas and perspectives? Overall, how effective was the group in meeting its goals during the meeting?"

"That meeting effectiveness survey was critical in getting buy-in as it showed the value of the coalition partners' time and input into the process," says Marshall. In fact, over the course of the pilot project with Comanche County, one of the goals became improving the average score on the surveys from 3.4 to 4. Scores actually improved to 4.6, 15% higher than the goal.

It turned out that getting local partners involved in the effort to improve health planning was not hard once the benefits were clear and the groups felt that their input was welcome. "Businesses want their employees to be healthy," says Marshall. Military personnel in the county stepped up their involvement too. "The military believes that good health means better military effectiveness, especially when troops know their families are healthy too," she adds.



Critical in helping to get military, business, and other sectors of the community involved was the Turning Point Coalition, which is part of the organization Fit Kids of Southwest Oklahoma. “It would have been harder to do our project without the Coalition’s help,” Marshall says. “The Coalition was essential to the project’s success.”

Lessons Learned

The importance of organizational systems and documentation were critical in the QI process, the team learned. Another lesson was that in addition to clear roles and definitions, flexibility was essential to meeting community needs. Finally, the team learned that QI must be continuous, and that the PHAB standards really are proven practices that should be a routine way of doing business. That will assure residents that delivery of services is evidence-based and continuously evaluated and improved.

“This QI initiative brought out the dedication and talent of everyone involved and we can use that moving forward,” says Marshall. “Our staff wants to help communities make improvements and they will go the extra mile to help.”

Since the original pilot project, the team has applied the lessons learned to four additional counties. In just a few months, and following the same process as with Comanche County, there were significant increases in community partners’ attendance at local coalition meetings, improved effectiveness of those meetings as rated by local coalition partners, and progress toward meeting the PHAB prerequisites.

And as for the meetings, “Each meeting in our pilot test became more effective and we were happy to see how much progress the county made in a short time,” says Marshall. “The systems work.”

Readers can learn more about Oklahoma’s accreditation beta test QI project by reviewing the QI team’s storyboard found on the next page. To view the full size storyboards go to:
<http://www.astho.org/Programs/Accreditation-and-Performance/Accreditation/>.

PLAN

1. Getting Started

- State has PHAB core components: community assessment, Oklahoma Health Improvement Plan, and strategic map/plan designed with local involvement.
- No county-level community assessment, health improvement plan, and/or strategic plan.
- High profile community leaders do not recognize the value or impact of their involvement in health assessment and improvement planning processes.
- Desire to establish systematic process and use data to drive direction in planning and engagement.
- Desire to improve community engagement and health improvement planning process.

2. Assemble the Team

- State and local health department staff
- Community Team with invited partners from 10 sectors including health, schools, law enforcement, government, business, youth, parents, faith, civic, and media.

3. Examine the Current Approach

- No standardized process for county-level community engagement and health improvement planning.
- County goals are set by community partnerships, but many times the plans geared to link activities and outcomes with the goals are incomplete.
- County-level health activities are being decided by community interests and general observation with limited community assessment or formal planning processes.
- Coalition meetings are somewhat sporadic in many communities.



4. Identify Potential Solutions

- Provide essential tools, processes, and systems to state and county team members.
- Provide training on quality improvement, MAPP, meeting effectiveness, and the Step UP performance management system.
- Assure meeting agendas have clear and concise objectives that are reviewed at the end of the meeting.
- Provide personal follow-up with sector partners to assure adequate representation.
- Send draft agendas and materials in advance of the meeting to assure adequate notice and opportunity for input to all partners.
- Assure that meetings have a clear, concise goal with set beginning and end times.
- Measure community engagement by concluding each meeting with a meeting effectiveness survey.
- Make adjustments as needed based on survey results, assessment, and/or evaluation.
- Complete MAPP community assessments and local strategic plan.

Activity	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Community Assessment	0	1	2	3	4
Identify Potential Solutions	0	1	2	3	4
Develop an Improvement Theory	0	1	2	3	4
Evaluate	0	1	2	3	4

5. Develop an Improvement Theory

If county health departments and their community partners are able to see the value and effectiveness of the community meetings, and adapt the MAPP methodology and related tools towards completion of a community health assessment; health improvement plan; and strategic plan that aligns with the state's plans, improvement in community engagement and health improvement planning progress will be achieved.

Aim: By December 2010, the Comanche County Health Department and the Oklahoma State Department of Health will work together to improve community engagement and health improvement planning as evidenced by: an increase of 40% to 60% of community sectors attending meetings; an average score from 3.4 to 4 on the Meeting Effectiveness Survey; completion from 0 to four assessments of the MAPP process demonstrating progress towards a CHIP; and completion from none to 100% of a local strategic plan utilizing the Step UP performance management system.

DO

6. Test the Theory

- Provided training on quality improvement, MAPP, meeting effectiveness, and the Step UP performance management system.
- County health department staff conducted personal outreach attempts in order to assure business sector representation at meetings.
- Collaborated with NACCHO to assure flexibility for community input on the assessment process while maintaining fidelity to the MAPP best practice model.

- Collected data to measure community engagement, meeting effectiveness, community health assessments completion, and strategic plan completion.

CHECK

7. Check the Results

- Community sector involvement in meetings increased from 40% to 70%, which is 25% more than the aggressive target of 60% set; and a significant overall improvement of 75% in community sector involvement in meetings.
- Scores on the Meeting Effectiveness Survey went from 3.4 to 4.6, or 15% higher than the goal of '4' that was set. This resulted in a significant overall improvement of 35.3%!
- The community improved from 0 to 3 assessments by 11/30/10 with the fourth assessment to be completed by January 2011, which completes the MAPP assessment process.
- The Comanche County Health Department is on target for 100% completion of a county health department strategic plan using the Step UP performance management web-based system.

ACT

8. Standardize the Improvement or Develop New Theory

- Based upon the results from this first test phase, we are moving forward with four additional pilot counties to see if similar results can be achieved.
- Standardize training on the MAPP process, quality improvement, community engagement, and health improvement planning processes.
- Monitor Comanche County to determine whether they can sustain and build upon improvements made while completing a community health improvement plan.

9. Establish Future Plans

- After testing is completed with the five pilot counties, we plan to standardize the training, technical assistance, MAPP community assessment and health improvement planning process, along with the Step UP strategic planning and documentation for counties state-wide.



Washington: Verify Job Qualifications

Qualified employees are essential to the success of any organization, whether it be a private company or a governmental state agency. But when the Washington State Department of Health (DOH) conducted a self assessment during the Public Health Accreditation Board (PHAB) accreditation beta test last year, they came face to face with an unresolved issue: They were falling short of being able to document that they were verifying the qualifications of job applicants.

It was not a new problem. The agency has had public health standards in place since 2000, and external reviewers evaluating DOH in 2008 found that they did not document the verification of qualifications of final job applicants. “We knew we had a problem, we thought we had fixed it, but once the reviewers came wanting us to document that verifications were completed, we weren’t able to do so,” notes Susan Ramsey, director of DOH’s Office of Performance & Accountability. A quality improvement (QI) project administered by ASTHO and funded by the Robert Wood Johnson Foundation as an adjunct to the beta test, gave the department a chance to address the issue head-on.

A Broad-Based Team

The 12-member QI team that assembled in June 2010 to tackle the job qualifications issue included key managers and staff from DOH’s human resources department, as well as hiring managers and support personnel from every branch of the 1500-employee agency.

“Having the right players in the room was critical,” says Ramsey. “It was essential to have human resources coordinators as part of our QI team. The executive sponsor of the project was Human Resources Director Katherine Deuel. Every one of our QI projects is also endorsed by Secretary Selecky and other senior managers.”

The QI team embarked on an ambitious goal in late June. By December 2010, members wanted to update, implement, and communicate key changes in the process to all hiring supervisors and managers within the agency. The goal: By December 2011, a full 100% of final job applicants would have their qualifications verified and the agency would be able to document it is being done.


This was a tall order, particularly at a time when DOH, like other state agencies, was coping with strained resources as a result of a hiring freeze, reduced staff, mandatory furlough days, and other cost control measures. A survey of hiring managers conducted by the team to establish baseline data showed that DOH was well off that goal of 100% verification. The data revealed that verification of required credentials occurred for only 33% of individuals hired between January and June of 2010.

Anatomy of a Problem

To find the root causes of this nagging issue, the QI team brainstormed problem areas and outlined them in a fishbone diagram. Eight key areas emerged:

- Inadequate training
- Lack of communication
- Lack of clarity in policy
- Unclear employment forms
- Variety of assumptions by hiring managers
- Costs of verification
- Overly long and cumbersome hiring process

Much of the problem stemmed from confusion about responsibilities in the hiring process. Many hiring managers thought the human resources staff was documenting the verification of all qualifications before sending candidates to them. But the human resources staff was simply comparing application information submitted by job seekers with criteria stated in recruitment requests by managers. “In general, our hiring managers didn’t realize what their roles were versus those of the human resources office,” says Ramsey.



QI team members scored the causes for the verification problems by order of importance and developed a Pareto chart, which identified the five areas that accounted for 80% of the problem: lack of a clear policy, lack of training, verification costs, inadequate communications, and unclear forms.

“Rather than a knee-jerk reaction to a problem or complaint, collecting important data and using QI tools like a Pareto chart to display this data are very valuable both in making informed decisions and in making presentations to senior management,” explains Ramsey.

Seizing the Opportunity

Though the QI team only had a three-month period to act last fall, it decided to push ahead with an improvement plan that targeted all five major problems areas revealed by the Pareto exercise. Driving that plan was this theory: If DOH developed clear policies and procedures and if staff knew what was expected of them and had access to the right tools, the agency would enhance the documentation of the verification process for qualification involving final applicants. Among the action steps taken by team members:

- Review and revise employment forms for easier verification of applicant qualifications.
- Contract with outside vendors to verify applicant education, licenses and certifications. Hiring managers themselves would document the verification of work experience.
- Launch training for managers on the new verification procedures and develop a communications plan, including regular emails to hiring managers and articles in the agency newsletter.

In implementing this plan, the QI team received continuous feedback from across the various DOH divisions. “For example, if a form needed to be changed,” explains Ramsey “team members first went out and got input from the hiring supervisors.”

Overall, says Ramsey, both the human resources office and hiring managers felt a “sense of relief” that a long-standing problem was finally being addressed. “They had been frustrated by this problem and were happy to see clearly defined roles and responsibilities and the ability to document verifications.”

Already, reports from the human resources department confirm that DOH is verifying 100% of applicant required qualifications involving professional credentials. A survey of hiring managers, scheduled for July 2011, will reveal if hiring supervisors are verifying job experience for those hired from January through June of 2011.

“Apart from the concrete benefits that it is bringing to hiring procedures, the QI project also serves as a good model as the department moves forward on other QI initiatives,” says Ramsey. She cites several new QI projects now in the works, including:

- New public disclosure policies for handling what can be costly requests for information.
- Staff training, leadership, and mentoring programs.
- New performance-based measures for contractors doing business with state agencies, a project directly resulting from Governor Christine Gregoire’s executive order.

In addition, the DOH Standards Process Improvement Team is engaged in an ongoing QI planning process to prepare the agency for national accreditation by PHAB. Says Ramsey: “Our goal is to be the first state to be accredited.”

Readers can learn more about the Washington State Department of Health’s accreditation beta test QI project by reviewing the QI team’s storyboard found on the next page. To view the full size storyboards go to:

<http://www.astho.org/Programs/Accreditation-and-Performance/Accreditation/>.

PLAN
 Identify an opportunity and
 Plan for Improvement

1. Getting Started

Having a competent workforce is one of the pillars of the public health infrastructure. The agency should have best practices in place that includes verification of final applicants' qualifications. This includes having clearly defined policies and processes to conduct reference checks, confirm transcripts with the issuing academic institution, confirm any registration or license with the issuing institution, or checking credentials provided by the applicant.

2. Assemble the Team

The team involves staff from all of the divisions in the agency

- Environmental Health
- Community and Family Health
- Health Systems Quality Assurance
- Epidemiology, Health Statistics, Public Health Labs
- Office of the Secretary

Team members were chosen to obtain a broad spectrum of hiring experience. Members include hiring managers, support staff and human resource experts. Two members of the team are office managers that work with hiring managers and human resources to facilitate the hiring process. Several members of the team are hiring managers and the Human Resources Director was the executive sponsor of the team.

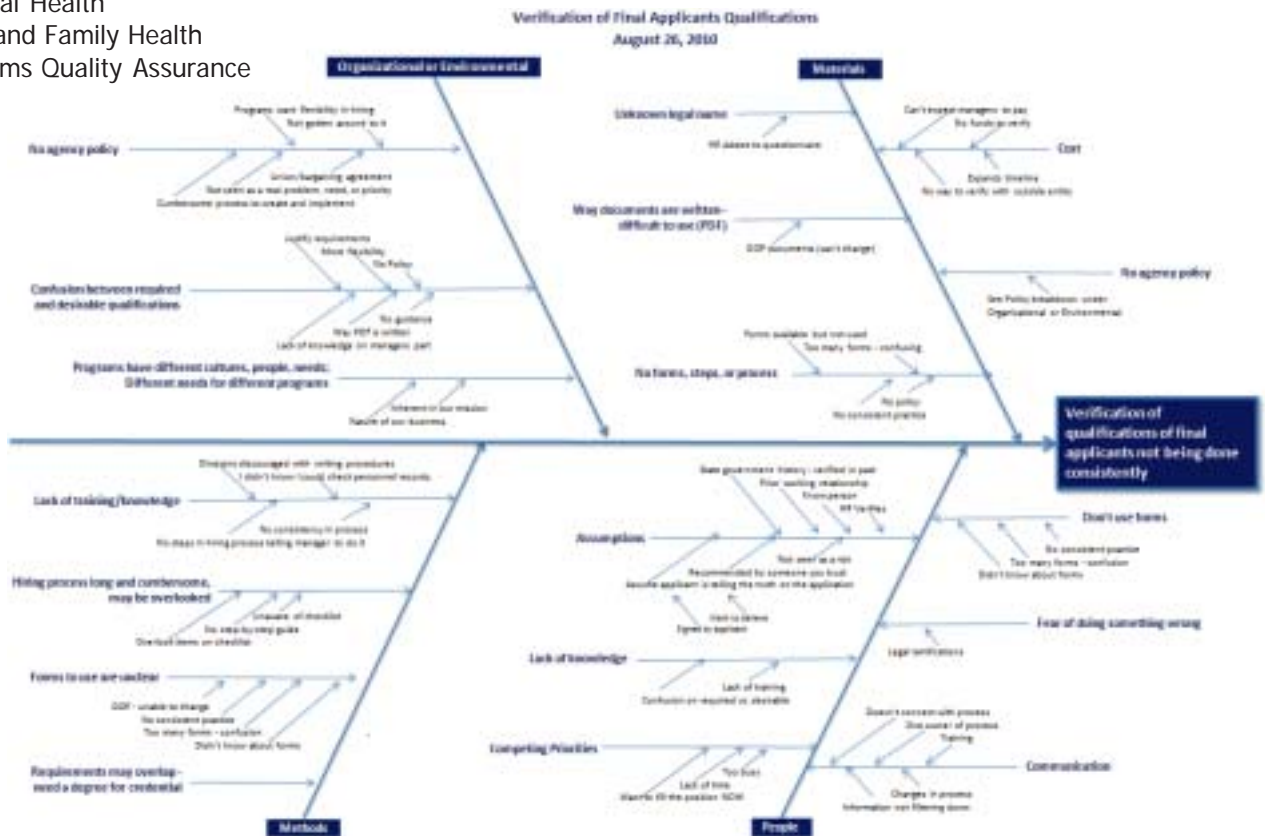
AIM Statement: Update, implement, and communicate changes to our process for hiring supervisors or managers by December 2010 to increase the percentage of final applicants whose required qualifications are verified to 100% by December 2011.

3. Examine the Current Approach

There is no consistent process across the agency to verify final applicants' qualifications. The risk manager for the agency helped us evaluate and understand the potential risks.

Our baseline data showed verification of required qualifications occurred in only 33% of the individuals hired between January and June 2010. It is possible that staff may be working in positions that they do not have the required credentials or background that is outlined in the job description.

Fishbone Diagram: The team brainstormed potential problem areas within the hiring process using a fishbone diagram.



4. Identify Potential Solution

Pareto Chart: A Pareto chart was developed. Five areas account for 80% of the problems:

1. Lack of a policy
2. Training
3. Cost
4. Lack of communication
5. Unclear forms



Priority Matrix: The team did a priority matrix to help identify and prioritize likely causes of the verification process not being consistent across the agency.

Verification of Final Applicants' Qualifications Priority Matrix August 18, 2010

Potential Root Cause	Issue 1 Training	Issue 2 Communication	Issue 3 Policy	Issue 4 Forms	Issue 5 Assumptions	Issue 6 Cost	Issue 7 Union	Issue 8 Process	Total
Issue 1 Training		15	2.5	23	27	13.2	36	12.4	129.1
Issue 2 Communication	5.1		4.3	10	27	17.2	37	14	114.6
Issue 3 Policy	27	19		26	36	19	31	40	208.0
Issue 4 Forms	3.5	5.2	2		23.2	8.4	31	18	91.3
Issue 5 Assumptions	2.7	2.7	1.8	8.2		6.6	22.2	11.6	55.8
Issue 6 Cost	8.4	7.6	4.3	13.2	31.2		31	19	114.7
Issue 7 Union	1.8	2.5	1.9	1.9	7.5	1.9		13.2	30.7
Issue 8 Process	12.4	4.4	1	3.6	16.4	4.3	8.4		50.5

5. Develop an Improvement Theory

We will drive improvement through implementation of proactive systems that include:

- Update or develop tools to check for final applicants' qualifications.
- Update, implement, and communicate changes to verification of

qualifications of final applicants' process.

DO
Test Theory Improvement

6. Test the Theory

Specific changes in the process include:

- Revise the procedures around conducting back-

ground or clearance checks to include credential verification.

- Utilize outside vendors to verify applicant education and licensure and/or certification.
- Communicate changes to hiring supervisors and managers through a variety of ways:
 - Email to all managers on updated process.
 - Article in the agency's December 2010 newsletter.

CHECK
Use Data to Study Results of the Test

7. Check the Results

Due to a state wide hiring freeze, the agency's ability to fill vacancies is very limited.

In order to obtain sufficient data to determine if the changes made an impact, we will monitor and track results between January and June 2011.

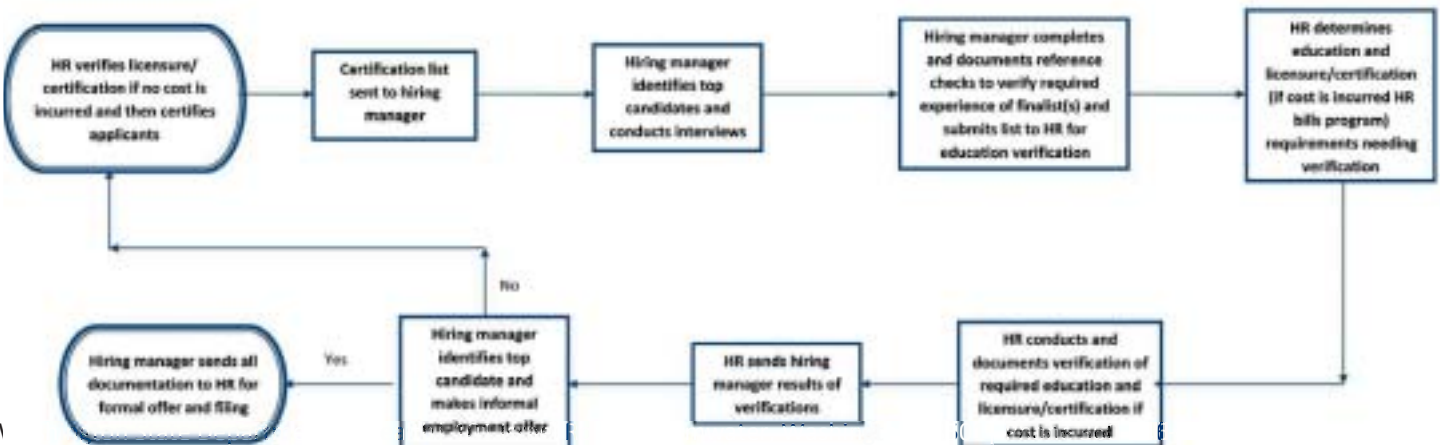
ACT
Standardize the Improvement and Establish Future Plans

8. Standardize the Improvement or Develop New Theory

It is expected that by December 2011, 100% of all final applicants will have the required qualifications verified prior to being offered the position.

9. Establish Future Plans

Continually monitor and document verification of required qualifications of final applicants prior to making a job offer.



Wyoming: Early Detection is in the “Cards”

Early detection is a mantra in public health and prevention. Catch a disease when it shows its first markers and you have a better chance of curing it, or at least mitigating its effects.

That is why every state uses metabolic screening to check newborns for inherited diseases. Now, thanks to a quality improvement (QI) project done in conjunction with the Association of State and Territorial Health Officials (ASTHO) and with funding from the Robert Wood Johnson Foundation, the Wyoming Department of Health is ensuring that its screening records have the required information medical practitioners need to start treatment for any diseases detected in Wyoming newborns.

The metabolic-screening test consists of pricking the heels of the newborns and sending a blood sample to a lab where technicians analyze it for signs of diseases and disorders like cystic fibrosis, galactosemia, among many others. Some states screen for only a few inherited diseases. Wyoming screens for all 28 recommended by The March of Dimes, as well as hearing issues.

Still, Charla Ricciardi, who is now the child and adolescent health coordinator for the Wyoming Department of Health, knew that the Public Health Accreditation Board’s (PHAB) accreditation standards could help identify weaknesses that the agency could address. Following participation in the PHAB beta test and with the help of ASTHO and funding from The Robert Wood Johnson Foundation, Wyoming embarked on a QI project based on findings from the PHAB self-assessment. Ricciardi, along with Amanda Harris, senior advisor in the public health agency, and a multi-disciplinary team within the agency went to work to improve Wyoming’s screening process for infants.

The Root of the Problem

Ninety-eight-percent of the approximately 8,000 babies born each year in Wyoming undergo metabolic screening in the first couple of days of life. The birthing facility sends the test samples, along with a card identifying the newborn, to a lab in Colorado for processing. If the lab detects any sign of a target disease, clinicians immediately call specialists, who in turn call the doctor who performed the delivery so they can begin treatment.

But what if the hospital or clinic where the baby is born doesn’t fill out the test-submittal card completely? Specifically, what if the facility does not put the doctor’s name on the card? “That can delay treatment, and possibly even result in the baby’s death,” says Ricciardi, who was Interim Children’s Special Health Program Manager during the time of the project.

The omission of the physician’s name, as well as other important demographic information about the newborn, turned out to be the problem. In the second quarter (June-August) of 2010, on average 17.35% of newborn screening cards were missing demographic information. Ricciardi, Harris and the agency staff targeted this issue for their QI project.

First, the agency staff performed a rigorous self-assessment. For that, they spent three months collecting pertinent data, using flowcharts to detail the newborn-screening process, and a Pareto chart to narrow the scope of the project. Once it selected missing information about the physician on the screening cards as its project, the agency’s maternal family health section enlisted representatives from the epidemiology, oral health, vital statistics and Medicaid sections as members of the project team. The team focused its pilot-test efforts on the state’s two largest birthing facilities, one in Cheyenne and one in Casper, and set a goal of a 10% decrease in missing information.

Using a fishbone diagram to get at the root cause of missing information, the project team discovered several causes, including human error, inconsistent training, lack of motivation, and technology, among others.

The problem was not that medical facilities were intentionally holding back information. In some cases, a hospital’s practice of using boy/girl and mother’s last name didn’t match birth certificates. In other cases, clinics that used the services of multiple doctors were not sure who the delivering doctor would be. Because of this, they put the name of the clinic on the card, mistakenly thinking that would suffice.



Collaboration Critical

Of course, the state health agency staff didn't know the details of those or other problems immediately. They only knew that the missing information was an issue. It was not until after collaboration with the health care facilities and the laboratory that they discovered the underlying issues. That collaboration itself came after a fair amount of brainstorming among state public health officials on how to best address the problem of missing information.

Gathering information, discussing it, and setting goals for improvement is hard enough. The real challenge is in deciding on solutions. In this effort, the team reached at least three conclusions. One was that training was critical for the medical facilities. In fact, they were so focused on training that they considered developing a training module on metabolic screening and later looked into purchasing a module from an outside organization for the medical facilities to use.

Their team brainstorming led them to their second conclusion: We are assuming that the medical facilities will be interested in using the training module. "It might be too lengthy and too specific for them to use," says Ricciardi. "We realized that the hospitals hadn't had a chance to provide their own insight into the problem. We knew we had to gather information from the hospitals, understand their processes, and communicate with them."

Ask Them and They Will Help

After showing charts to the hospitals on the extent of the problem of missing information and involving hospital staff in discussions, the team reached its third conclusion: "We asked the hospitals how they would like to fix the problem," Ricciardi says.

One birthing facility said it would ensure that whichever doctor was on rounds during the birth would have their name on the test-submittal card. The other said it would contact all clinics in its area and delegate one doctor from each to always be the contact.

The collaboration worked in terms of getting buy-in from the hospitals. "We didn't have complete control, but working together with them as partners, soliciting their recommendations, and letting them make their own changes turned out to be a successful strategy," says Ricciardi.

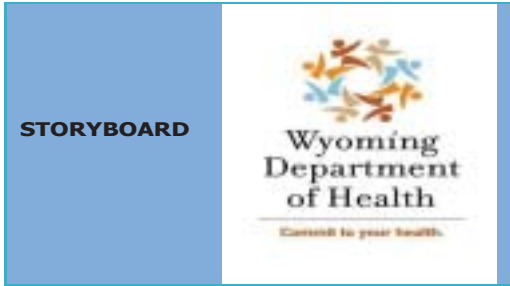
The birthing facility that selected one doctor from each clinic to always have his or her name on the submittal card improved its record of providing required information by 67%. The other improved by 18%.

With the project under its belt, the team now plans to monitor the sufficiency of other demographic information on the submitter cards and to extend their focus to other hospitals in the state. "We want to find out where the most births are and where the biggest data deficiencies are," says Ricciardi.

Readers can learn more about Wyoming's accreditation beta test QI project by reviewing the QI team's storyboard found on the next page. To view the full size storyboards go to:

<http://www.astho.org/Programs/Accreditation-and-Performance/Accreditation/>.

NEWBORN METABOLIC SCREENING



PLAN

Identify an opportunity and Plan for Improvement

1. Getting Started

The quality improvement project was selected by the Wyoming Department of Health (WDH) Senior Management Council June 30, 2010: Decreasing the Amount of Missing or Incomplete Data on the Newborn Metabolic Screening Card. The quality improvement (QI) team was not solidified until three weeks into the project. On August 25, 2010, the team attended the Wyoming Public Health Leadership workshop. During the quality improvement workshop team roles and a working plan were developed and initiated.

2. Assemble the Team

The QI team members were identified based on subject area specialty in newborn metabolic screening. Three program staff members volunteered to join the team in this capacity. Next, a member of the WDH, Community and Public Health Division (CPHD), Epidemiology Section was recruited for the team based on their interest in the project. A member of the WDH Vital Statistics Services was also recruited based on the interconnected nature of the newborn metabolic screening and the birth certificate. Two members of CPHD management were identified and chosen to join the team in order to establish division buy in and to institutionalize any changes resulting from the QI process.

3. Examine the Current Approach

The process surrounding the problem of missing or incomplete demographic information on newborn metabolic screening cards is related to multiple factors such as;

- People
 - Human error.
- Technology
 - Lab has no ability to enter all of the data.
- Methods and Procedures
 - Child's demographic information is incomplete or inaccurate.
- Materials and Resources

- Forms can require duplication if the second screening card is lost by the family.

4. Identify Potential Solutions

Possible improvements that were discussed include developing state wide training for hospitals. Costs could be reduced by avoiding the duplication of the first screening fee due to the inability to match a second screen to a first screen.

Five improvement theories were developed:

1. Develop training materials for hospital staff members.
2. Purchase and distribute a newborn metabolic screening kit developed by Clinical Laboratory Standards Institute.
3. State program staff schedule meetings with hospital personnel; QI Managers, Lab supervisors, and Women and Children's Health Coordinators.
4. Have hospital staff access an online training tool developed by the Colorado laboratory.
5. Explain to hospitals what is and is not acceptable information on the screening card.

After speaking with hospital staff it was determined that a combination of theories 3-5 would be the most effective

5. Develop an Improvement Theory

If Wyoming hospitals are educated on the importance and need to completely fill out the newborn metabolic screening card, then the percentage of missing demographic information on the newborn metabolic screening cards will decrease. This change will be monitored by the "submitter report cards."

DO

Test the Theory for Improvement

6. Test the Theory

Two of the primary birthing hospitals in Wyoming were contacted and then educated about the need to improve information being reported on the metabolic screening cards. These two birthing hospitals had the highest percentage of missing demographic information:

- **27.6% of Hospital A specimens had information missing.**
- **35.8% of Hospital B specimens had information missing.**

The two facilities had one common piece of missing demographic information, which was the "Newborn's Physician Name."

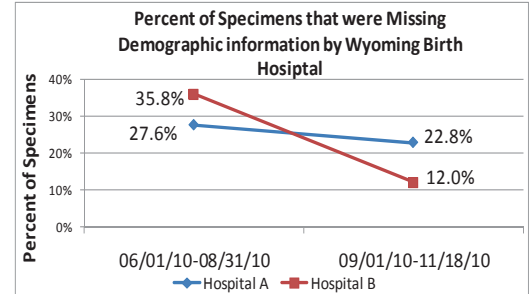
- **23.0% of Hospital A specimens had this information missing.**
- **29.7% of Hospital B specimens had this information missing.**

CHECK

Use Data to Study Results of the Test

7. Check the Results

After contacting both facilities and providing education, results were seen almost immediately. Both facilities exceeded the aim of a 10% reduction in the percentage of missing demographic information on the submitter report card:



- **Hospital A demonstrated a 17.4% reduction in missing demographic information.**
- **Hospital B demonstrated a 66.6% reduction in missing demographic information.**

Both facilities were pleased with the report findings and were motivated to continue with the existing improvement strategies and possibly implement additional measures in the future.

AIM Statement: By December 2010, decrease percentage of missing demographic information on the newborn metabolic screening cards by 10% at selected birthing facilities.

ACT

Standardize the Improvement and Establish Future Plans

8. Standardize the Improvement or Develop New Theory

After seeing the results from the two biggest hospitals in the state, this improvement plan will be adopted and carried out at the other birthing hospitals to help improve their performance. However, the approach will need to be modified slightly. Not all facilities are missing the same demographic information and therefore each item will be handled differently. For example, the newborn's weight comes from a different source than the newborn Physician's name. The education will need to account for those differences.

9. Establish Future Plans

Future plans for ensuring the newborn metabolic screening cards are being completed correctly will come from continual surveillance and monitoring by the Children's Special Health (CSH) Program. By using the submitter report card, the CSH Program will be able to monitor and educate those facilities that are struggling to provide correct and complete metabolic screening information.

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This collection of stories was authored for ASTHO by Lawrence Maloney and Paul Teague and edited by ASTHO and staff from the eight states.

For copies of the full page process maps, charts and graphs contained in each storyboard or for additional information contact: publications@astho.org

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