Brief Summary Statement
The Washington County Department of Public Health and Environment (Department) is located in Stillwater, MN, with additional service centers in Forest Lake and Cottage Grove. With a staff of 90 people, the Department serves a diverse and growing rural/urban population. Based on results of the NACCHO LHD Self-Assessment Tool, the Department chose to address weaknesses in its program evaluation capacity by using multiple QI tools to solicit and analyze stakeholder feedback in order to evaluate the Alcohol and Tobacco Vendor Compliance program.

Background
Located on the eastern edge of the Twin Cities Metropolitan area and on the Minnesota-Wisconsin border, Washington County is an area of abundant beauty, historical character, and rapid residential and economic growth. It is 423 square miles in size and its population is estimated to be 233,104. The Department provides a comprehensive array of public health programs including WIC, Disease Prevention and Control, Maternal-Child Health, Healthy Communities; Correctional Health; Food, Beverage, and Lodging; Solid and Hazardous Waste; Groundwater Planning; and Community-based Long-term Care.

Despite the relatively affluent status of its residents, serious public health and environmental problems continue to affect all age groups within the county. Use of and access to alcohol, tobacco and other drugs among adolescents is one of those ongoing key health concerns that the Department has been working to improve for the past few decades. It also emerged as one of twelve key health issues for the county in the recent 2008 Community Health Assessment. To address this issue, the Department has been providing leadership to community chemical health coalitions; assuring consistency in the enforcement of local underage access regulations; providing education to professional and community groups; and collecting and analyzing data related to chemical use.

The Department's Management Team has had a long-standing interest in performance measurement through its involvement in the county's Performance Measurement system. Department staff members have also provided state-wide leadership to the Minnesota Planning and Performance Measurement Reporting System Workgroup and the Minnesota Public Health Collaborative for Quality Improvement (MPHCQI) Steering Committee. Through its staff work with the MPHCQI initiative, the Department has been learning about how to prepare for accreditation and been exposed to various applications of the quality improvement process.

The Department's initial reasons for participation in the project were to introduce and train staff on QI tools and techniques, institute a culture of continuous quality improvement throughout the organization, and become familiar with accreditation self-assessment tools. The Department has been interested in implementing infrastructure and program improvement strategies but has lacked the knowledge, skills and resources to do so.

Goals and Objectives

Goal: Improve the program evaluation capacity of the Department in order to prepare for National Accreditation.

Objectives:
1. Implement a framework for program evaluation that can be applied to other Department programs;
2. Increase familiarity with QI tools and processes;
3. Integrate continuous quality improvement into the culture of the Department; and
4. Solicit stakeholder feedback to improve the effectiveness of the Alcohol and Tobacco Underage Vendor Compliance Program.

Due to the grant timeframe, all of these objectives were not realistically achievable. The project did assist the Department in taking the initial steps in achieving all of the objectives. The Project Team made the most progress in Objectives #1, 2, and 4. Objective #3 needs a longer implementation timeframe into 2009.
The Self-Assessment Process was coordinated by the Department’s Deputy Director and Planner. The entire process for the two coordinators, from start to finish, took about 6 weeks. The actual time that others in the Department were involved was about 3 weeks. Below is an outline of the steps that were taken in the actual scoring of the Self-Assessment:

**Scoring Steps:**

1. The Deputy Director and the Planner decided which staff would score each Essential Service, limiting the amount of scoring to six Essential Services per person.
2. There were two groups scoring: Group A consisted of several managers and lead staff; and Group B consisted of the Director, Deputy Director and the Senior Program Manager.
3. All members of the scoring groups had the options of either completing a paper copy or an electronic document of their assigned Essential Services. Each member did this individually.
4. Each scorer submitted his or her paper or electronic documents to the Planner and the Planner compiled all of the scores into one summary document.
5. Average scores for every standard were compared. Scores that differed by more than one point between Group A and Group B were highlighted in the summary document.
6. Group B met in-person to review the summary document and discuss the discrepancies among the scorers. Potential reasons for differences in scoring were discussed and consensus was reached by Group B on a final score for each standard. The Planner compiled a final document of all of the scores for the standards and measures.
7. To help in the analysis of the scoring results, the average scores for the Essential Services for both groups were plotted on a radar chart. (See Appendix B)
8. The lowest scoring Essential Service for the Department was “Essential Service IX – Evaluate and Improve Programs.” The overall results were presented to the Department’s Management Team.

This approach was selected in order to involve as many staff members as possible who had an understanding of the standards from a department-wide perspective. There was a total of 14 Department staff, including managers and program coordinators, involved in the Self-Assessment process. The only notable difficulty with the scoring process was the inability to complete the document in an electronic format, save the scores, and forward the scores to the Planner who compiled and averaged all scores.

**Highlights from Self-Assessment Results**

<table>
<thead>
<tr>
<th>Standard/Indicator #</th>
<th>Standard and Significance</th>
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<tbody>
<tr>
<td>III-D. 8</td>
<td><strong>Provide health promotion programs to address identified health problems.</strong> This was a low scoring area for the Department since it does not have an established a regular, systematic model for program evaluation. Program evaluation in the health promotion program area has primarily been done when relevant to required grant reporting and evaluation.</td>
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<tr>
<td>VI-D.4</td>
<td><strong>Monitor, and analyze over time, the compliance of regulated organizations, entities, and individuals.</strong> Even though the Department scored high in most of the standards related to regulatory enforcement, there has not been a dedicated evaluation of the impacts and results of regulatory enforcement actions. By focusing this QI project on the tobacco and alcohol regulatory compliance efforts, the activities could be also used in an evaluation process for other regulatory programs in the Department.</td>
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<td>IX-C.1</td>
<td><strong>Evaluate the effectiveness and quality of all LHD programs and activities and use the information to improve LHD performance and community health outcomes.</strong> As mentioned earlier, the Department has not established a framework for regular program evaluation. One significant component of an evaluation framework that is missing in the Department is the assessment of stakeholder satisfaction with agency services. Even though the Department has been working with tobacco/alcohol vendors, law enforcement, and city administration for many years, there never has been an effort to objectively obtain their input about the services they are receiving.</td>
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Quality Improvement Process

**AIM Statement:** Enhance compliance with alcohol and tobacco underage sales regulations in Washington County through stakeholder engagement and program evaluation.

**PLAN:** After completing the NACCHO LHD Self-Assessment, it was apparent that program evaluation was the weakest area among all essential services for the Department. A radar chart was developed to assist in the interpretation of the results of the Self-Assessment. (See Appendix B) The Department’s managers then prioritized a list of potential programs to target for the project. The Chemical Health Program was chosen for the QI project for three primary reasons:

1. Chemical health issues continue to be a priority, as identified in the 2008 Community Health Assessment;
2. Significant Department resources are being allocated to address chemical health issues but the program has not been evaluated for its effectiveness; and
3. Staff members who work in the program are people who are eager to learn, like to try new things, and are most likely to successfully complete the project.

To guide the overall implementation of the QI project and assure compliance with the grant application, a Leadership Team was established. The Leadership Team consisted of the Deputy Director, Planner, Program Manager, Management Analyst, and Administrative Assistant. A Public Health Graduate Student was hired specifically to work on the project. The Leadership Team only met a few times by itself at the very beginning of the process but the members were invited to participate in the Project Team meetings. Project Champions, the Department Director and the Deputy County Administrator, were also identified to help with overall promotion of the project to the County Board of Commissioners and the entire Department staff.

A Project Team was established to continue the planning and implementation of the QI project. The Project Team consisted of the Program Manager who oversees the Chemical Health Program; three Community Health Specialists who are involved in the Chemical Health and Youth Program activities; a Planner who is familiar with performance measurement; and the Public Health Graduate Student. The Department contracted with QI Consultant, Kay Edwards, to assist and guide the Leadership and Project Teams in the implementation of the project.

After brainstorming several potential QI projects within the Chemical Health Program, the Project Team chose to focus on the Alcohol and Tobacco Vendor Compliance Program. Compliance rates for sales of tobacco and alcohol to underage buyers were decreasing over the past few years and the Project Team wanted to know why that was happening and did the Department need to change what it was doing to increase compliance. (See Appendix C) The consultant facilitated a joint, day-long meeting of the Leadership and Project Teams in August. The consultant helped the teams focus on the scope of the project, develop an Aim Statement, and learn about the QI process and useful tools.

The next steps for the Project Team were to examine the current compliance process, identify root causes of the lower compliance rates, and look broadly at program activities to fully understanding what is working and what is not. The steps that were taken to examine the current efforts were 1) a review of the tobacco compliance process flow chart; 2) the development of a fishbone (cause and effect) diagram; and 3) completion of a SWOT (Strengths, Weaknesses, Opportunities, Trends) Analysis. (See Appendices D, E, and F respectively)

The SWOT Analysis helped the Project Team identify five potential areas for QI activities that would help make an improvement:

- Improve the data collection, reporting and analysis process;
- Improve overall vendor compliance rates;
- Work to enhance relationships with external stakeholders;
- Diagram time spent on each aspect of the vendor compliance program by staff to pinpoint the internal resources devote to the program; or
- Enhance vendor compliance education.

Using the Centers for Disease Control and Prevention (CDC) Evaluation Framework as a resource, the Project Team decided to focus on soliciting feedback as a way to engage stakeholders and to use this information to improve the compliance program. The program had never asked for feedback...
before from vendors or partners, such as law enforcement and city administration. Any amount of feedback that could be attained through this project would be an improvement, but the Project Team needed to determine the right tool to use to gather useful feedback. Since the Department has a database of all tobacco and alcohol vendors located in the county, the Project Team decided that a survey would be an effective and efficient way to obtain feedback within the timeframe of the project.

**DO:** The Project Team decided to create two separate surveys, one for the alcohol/tobacco vendors and one for the police chiefs/city administrators. Each of these stakeholders could provide valuable feedback to the department about if and how they use department services and what services they would like provided in the future. The initial questions were drafted by the Graduate Student after getting input from Project Team members. Additionally, all team members contributed to the revision of survey questions and their input was incorporated into the final survey product. The Graduate Student was responsible for formatting the survey questions and establishing a web-based tool.

In order to determine if the survey process would work and if the questions would be understandable, the Project Team decided to first pilot the web-based survey. The Program Manager wrote a letter asking the vendors to participate in the survey and the letter was sent by the Administrative Assistant to 54 alcohol and tobacco vendors. A follow-up reminder was sent one week later. The cost of this pilot survey was $47.26 (postage, printing, and supplies). The Graduate Student compiled the results and reported back to the Project Team.

**CHECK:** The pilot survey process needed to be followed by a rapid cycle of the PDCA process. After checking the data from the pilot survey, the Project Team decided to take new actions and made plans to revise the survey questions and provide an alternative method to the web for submitting the survey to the Department. The Graduate Student and Planner worked with the Administrative Assistant and Program Manager to revise the survey questions and invitation letter. A paper version of the survey was also developed and sent to all of the vendors. Respondents could fill out a paper survey and return it to the Department; or complete the web-based version. If the respondent used the paper survey, the results were entered into the web-based system by the Administrative Assistant. (See Appendix G for vendor survey)

The Project Team did attain improvement in the survey response rate from the pilot test to full survey implementation. The response rate to the pilot vendor survey was low (11.1%). Even though there was a low response, the Project Team was able to identify problems with the wording of the questions. After changing the survey process and revising the questions, the response rate for the vendor survey increased to 23.5%. The consultant advised the Project Team that this was an acceptable response rate for an unsolicited survey. The response rate for the survey of Police Chiefs and City Administrators was also acceptable at 20.5%.

**ACT:** The final survey and letter were sent to the remaining 247 vendors. Again, a reminder postcard was sent one week after the original letter. The total cost was $270.60. A different survey process was used for 39 Police Chiefs and City Administrators. Because the Department has the individual email addresses of the stakeholders, it was efficient and cost-effective to send them a website link to the survey via an email message. A reminder email message was also sent. All stakeholders had 10 days to complete the on-line or paper survey. (See Appendix H for Police Chiefs/Administrator survey)

The main obstacle throughout this part of the cycle was maintaining open and clear lines of communication among the Project Team members during the revision process. Email communication was selected for getting everyone’s feedback on the survey questions. This may not have been the best format due to members’ schedules and the tightness of project deadlines. Consequently, communications were delayed which shortened the time allotted for collecting responses.

The Project Team was able to identify problems in the survey process and made changes that improved the response rate and value of the survey. The survey process and format of questions can easily be replicated by other programs in the Department that need to obtain stakeholder feedback. One of the key results of the project was that it actually raised more questions than it really answered. Going through the process actually opened up new ideas and identified additional information that was needed before a final decision could be made about the program. For example, more information about the ongoing vendor trainings was needed. This would include participant evaluations of the trainings; locations and times of the trainings; and which vendors were participating in the trainings. Since there is still more data to consider, the Project Team has decided to continue the evaluation process into 2009.
To help them identify the next steps and what questions still need to be answered, the Project Team created an Affinity Diagram. (See Appendix J) The diagram identified action steps in the following categories: evaluate trainings, integrate with other Department chemical health efforts, compile data, goals, and re-form a Project Team to continue the work. Some of the next steps for the future Project Team include establishing goals, measures, and targets; analyzing content, locations, and times of county and other vendor trainings; and maintaining Police Chiefs’ involvement on future planning teams.

Results
The Graduate Student and Planner compiled the results of the surveys. Key findings of the vendor survey included:

- Vendors believe the training programs they use are effective;
- Majority of vendors utilize corporate training programs;
- Those who participated in county training believed it was effective;
- Vendors want information on how to check IDs and identify fake IDs;
- Vendors want information on laws, ordinances, penalties, and employee incentive programs;
- Majority did not think the county could assist them further with compliance issues; and
- Main barriers to compliance were high employee turnover and inconvenient times of trainings.

From the perspectives of the Police Chiefs and City Administrators, the main barrier to reducing underage access to tobacco and alcohol was training for vendors’ employees. They were also interested in increasing the availability of local vendor trainings and getting technical assistance from the county on revising rules, regulations, and ordinances.

In addition to conducting the survey and analyzing its results, the Project Team also took the opportunity to consider other data that could inform them about the effectiveness of the vendor compliance program. This included the trend chart of vendor compliance rates, output data on vendor trainings from 2006-2008, and 2007 Minnesota Student Survey Results—Washington County that identified the various sources of illegal access to alcohol and tobacco for 9th and 12th graders. (See Appendix I for an example)

The Project Team also utilized the expertise of the consultant to help analyze the survey and other available data. The consultant helped the team identify additional questions for consideration in evaluating the program and next steps to take in order to continue the process.

There are two aspects of results to consider: the results for the Project Team and results for the Department overall. The key results for the Project Team include 1) a successful collection of stakeholder input in the evaluation of the Alcohol and Tobacco Vendor Compliance Program; 2) the staff members involved in the project have a better understanding of and comfort with the quality improvement process and related tools; 3) the team members can now promote the value of using the QI process to their peers both internally and externally; and 4) the team members can serve as resources to Department colleagues who need advice in developing a process to soliciting stakeholder feedback.

The key results of the project for the Department include 1) by using the Self-Assessment Tool, the Management Team gained a deeper understanding of where the Department needs to improve in order to be ready for accreditation; 2) interest in developing a culture of quality improvement across the Department has increased among managers and staff members involved in the project; 3) staff throughout the Department are now hearing that the Department is actively preparing for accreditation; and 4) the Department can provide advice to other LHDs in the state who are participating in a new QI Collaborative to improve community engagement.

Lessons Learned

Staffing
The right people were involved in the project. The decision to select this particular program and group of people was important to the success of the project. Besides knowing the details of how the program works, they were individuals who were willing to try something new and were comfortable with some ambiguity at times. The consultant also noted that in the day-long retreat that this group of people
were very engaged in the process and were committed to the project. They also appreciate any new learning opportunities that are available to them. The project was enjoyable for the people involved and they were able to overcome minor frustrations quickly.

The other aspect of staffing was in the hiring of temporary staff. The Department chose to hire a Public Health Graduate Student to assist in the project. The University of Minnesota has a School of Public Health and the Department is committed to helping prepare students for local public health work. The student benefitted his learning by experiencing a QI project in the local health department and the challenges that public health workers face everyday. If a local health department uses a graduate student for a QI project, it is important to remember that extensive amount of time will need to be spent with the student to orient him or her to the organization and the services that are provided to the community. In addition it takes time to learn the culture of the organization and communication expectations. Due to the Graduate Student’s part-time schedule, the Leadership Team learned the importance of good communication in-between the student’s workdays and timely feedback on documents.

**Use of Consultants**
The Department was very satisfied with the overall assistance from the consultant. The consultant facilitated a day-long retreat for the Project Team and then provided scheduled consultation via telephone conference calls. The challenge the Department faced early on in the project was retaining a consultant. A “Request For Interest” notification was sent to the consultant list provided by NACCHO but initially we did not receive any positive responses. Consultants associated with the Public Health Foundation (PHF) expressed interest but it was unclear how a proposal was being put together and when it would be done. The Department was able to clarify its consulting needs and it was able to secure a consultant through PHF.

In future projects, it is important to identify what the organization’s consulting needs really are and how best a consultant can fill those needs. Does the organization need in-person training on specific QI tools or is there more of a need for philosophical and leadership guidance to project leaders? Also, the travel costs associated with an out-of-state consultant are very high and can be a barrier to getting help with the project. The Department could have looked more for local QI experts to do in-person training and used out-of-state consultants primarily for webinars or telephone conference calls. This would have been a more efficient use of the funds. Also, the on-line training resources available through the American Society for Quality would have been useful earlier when the project was first underway.

**Self-Assessment Process**
The Department’s Management Team found the Self-Assessment Tool to be beneficial in identifying the areas where it needs to improve capacity. The process helped the managers more concretely understand what the accreditation process may look like and what is going to be expected of local health departments. The process the Department used to complete the tool was productive, but it could have been improved by having all the scorers meet to dialogue about the results and make the final scoring determinations. This would have enhanced the learning that was taking place and deepened understanding about the work everyone is doing in the Department.

**Project Team Roles and Responsibilities**
It is very important to keep clear who was doing what throughout the project timeline. Since this was a new way of operating for the staff it was very easy to let tasks fall through the cracks or to allow for duplicative work. To help keep the Project Team members clear on their assigned tasks, the Planner developed a Project Team schedule. (See Appendix K) This was a flexible tool that revised as progress and people’s assigned tasks changed. The Project Team still experienced some confusion regarding timelines and tasks, but overall this tool really helped. It was also a good tool for the consultant to use in tracking her services and the deadlines for her responses.

**Data**
In addition to relying on survey feedback in order to lead to program improvement, the Project Team learned the importance of collecting and analyzing related data in order to evaluate a program. Compliance data did exist but it was never analyzed in depth or in conjunction with student survey data which showed how students actually obtain alcohol and tobacco. After discussing the survey feedback, the group also realized what additional data was missing and what to potentially collect in the future.
Standardized Evaluation Framework

Prior to engaging in this project, Department leadership understood the importance of using a standardized evaluation framework across programs but lacked experience using one. Based on experience with this QI process, the Department believes that the CDC’s Evaluation Framework is a good tool to guide staff members through the steps of thorough program evaluation. This evaluation framework emphasizes stakeholder engagement in the evaluation process which was the focus of the Department’s improvement theory.

Next Steps

Besides the Project Team continuing its work on evaluating the Vendor Compliance Program, the Department’s senior managers are committed to developing a culture of quality improvement throughout the organization. The steps that will be taken in the next few months include a review of the Department’s Vision, Mission, and Values Statements and revising them to assure that “quality” is inherent in the work that is being done. There will also be consideration of a new policy that demonstrates a long-term expectation for incorporating a focus on quality improvement in our programs and services. As the Department begins to develop its state-required Health Improvement Plans in 2009, managers and their staff will be asked to utilize QI tools and techniques in their planning processes. It will be a great benefit to already have had some staff involved in a QI process.

Another program in the Department, Solid and Hazardous Waste, has volunteered to embark on a quality improvement project. The program has recently experienced staff changes and will be implementing a new information system in 2009. This past year the staff members have been mapping their business processes for licensing, inspections, and enforcement activities in its regulatory program. Now the question is “what do we do with this?” The program is rich with data but it has never been fully evaluated to determine its effectiveness. The survey tool for stakeholder input that was used in this project might be very useful in this regulatory program as well. Also, the on-line training programs from ASQ may be used to develop a basic understanding of the quality improvement process and tools among the members of the work team.

The Department staff members have also started to share what has been learned through this project with other local health departments in Minnesota. The Self-Assessment Tool and process was shared with members of the MNPHCQI Steering Committee and a few of them are trying to use all or parts of it within their own agencies. Staff members have also been sharing what has been learned with key personnel at the Minnesota Department of Health who are coordinating quality improvement collaboratives as part of the Multi-State Learning Collaborative efforts.

Conclusions

This project was certainly of high value and benefit to the Department. It was a positive learning experience for everyone involved. People increased their knowledge base of QI skills; familiarized themselves with an accreditation-type of capacity self-assessment; and tackled the fear of the unknown and a weak area of performance. Everyone has more confidence now in starting another QI project and being successful. An unexpected benefit was the interest that other entities within the county government organization had in our project. Public Health has the potential to be a role model for other local government agencies that want to apply these tools in improving their public services such as social services, probation, taxpayer services, etc.

The Department learned the following benefits of using a QI process:
- It provides an effective process for evaluating programs;
- The various tools are easy to use and flexible in nature;
- It can be used by multiple public health and governmental disciplines;
- It well-demonstrates the cyclical nature of quality improvement—it’s never over, raises more questions, and identifies other program areas to address; and
- People do enjoy the process and they see the direct benefits of using the tools after being exposed to them.

The Leadership and Project Team members concluded that all of the Department’s programs could benefit from using QI tools for evaluation. Despite the Vendor Compliance Program being relatively small in size (in terms of budget and FTEs), numerous suggestions evolved for program improvement.
Also, the survey tool to obtain stakeholder input will help other staff to better engage stakeholders in evaluating the Department's programs and services.

Appendices
A: Storyboard
B: Radar Chart
C: Compliance Rate Chart
D: Flow chart
E: Fishbone
F: SWOT
G: Vendor Survey
H: Police Chief/City Administrator Survey
I: Student Survey Results example
J: Affinity
K: Project Timeline