**Brief Summary Statement**
Louisville Metro Public Health & Wellness (LMPHW) provides essential health services to a population of 701,500 persons who reside in Louisville/Jefferson County Metro area (Kentucky). This population includes both rural and urban areas. The health department vision is “to protect, preserve and promote the health, environment and well-being to the people of Louisville Metro through health status assessment, policy development, and assurance.”

Using the NACCHO LHD Self-Assessment Tool for Accreditation Preparation and a quality improvement process, the LMPHW chose Criteria III-D:6 Assessing a target population for how they accept information as the basis for a pilot project undertaken for this grant. A post-education assessment was developed to provide a vehicle for feedback and follow-up from graduates of the Cooper Clayton Smoking Cessation program. A list of 143 graduates was collected and a telephone interview questionnaire was developed and administered to this group. The following documents the process, results and recommendations resulting from this project.

**Background**
Louisville Metro Public Health & Wellness leader, Dr. Adewale Troutman, MD has a goal for the organization to become one of the first Health Departments in the country to receive full accreditation. In order to achieve this lofty goal, the Health Department is being proactive by conducting the NACCHO self-assessment in preparation for the accreditation process. Dr. Troutman and his leadership team view this as critical to the organization’s ability to have continuous improvement and growth, opportunities to attract funds and/or grants, and provide excellence service to an extremely diverse population.

The LMPHW provides services to approximately 701,500 persons in 52 program areas both internally and through contract agreement. As an agency of the Louisville/Jefferson County Metro Government, the health department functions under the governance of the Louisville/Jefferson County Board of Health. The primary health service division of the health department includes Community Health Education & Promotion, Personal & Population Health Services, Environmental, Communicable Disease Prevention, and Public Health & Emergency Preparedness.

**Goals and Objectives**
- Create awareness of the Operational Definition key performance indicators
- Review and evaluate the current status of the organization relative to these key performance indicators
- Identify areas that need improvement in order to meet the future accreditation criterion
**Self-Assessment**

A collaborative evaluation approach was conducted in order to prepare the self assessment. The senior leadership team (approximately 14 members) along with a professional facilitator evaluated and scored the NACCHO Key Performance Indicators based on current operations. This approach allowed for input from the experts across the organization.

An evaluation and scoring session was held in which each criterion was reviewed, one by one. All participants had the opportunity to voice their opinion and award a score on a 0 to 4 scale. All scores were tallied throughout the session and consensus reach on each particular criterion. When divergent scoring occurred, discussion followed and subject matter experts were relied upon to provide justification and clarification that lead to the appropriate rating. Throughout this session, there were no difficulties that the team was not able to overcome.

**Self Assessment Highlights**

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<th>Standard / Indicator #</th>
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| III-D:6                | **Assess the Target Population for How They Accept Information**  
  • This was an area that received a low score during the self assessment. After discussion with the team, it was decided that this would be the focus criteria for the QI project as described in the summary document. |
| III-D:9                | **Develops and Revises Performance Measures, Goals and Objectives Based on Evaluation**  
  • This criterion also received a low score during the self assessment. This is noteworthy because the end result of the QI pilot project will also increase the organization’s capacity to achieve competencies in these areas. |
| III-D:8                | **Evaluates Promotion Efforts Every 2 Years and Uses Results to Improve**  
  • This criterion also received a low score, and as above, is noteworthy because the end result of the QI pilot project will also increase the organization’s capacity to achieve competencies in this area. |
| III-D:5                | **Identifying Populations at Risk as Potential Targets for Programming**  
  • This criterion is noteworthy, because there is a large refugee resettlement population in this community who has differing critical needs and issues. The Health Department has excelled in identifying and addressing the needs of these diverse and changing demographics of the community. |

**Quality Improvement Process**

The Self-Assessment Tool for Accreditation Preparation was undertaken by the LMPHW beginning in 2008. One of the outcomes of this process was a ranking of the organization’s competence over many selected criteria. One criteria in particular, Assessing a Target Population on how they Accept Information, received a low score. It was the purpose of this QI project to address that particular criteria in a specific way and develop a process that can be used across the organization to strengthen the particular competency of Assessing a Target Population on how they Accept Information. The goal of this project was to develop a process to assess a target population, conduct an evaluation, review results and make recommendations that improve the process. It is anticipated that the developed process can
be implemented across the organization in the various departments of the LMPHW, especially those that target health education that is focused on the participants making changes to their health behaviors and practices.

Specific goals and objectives of this QI project include:

- Develop a process that could be put in place that could evaluate a program’s effectiveness, how well educational information is accepted, processed and understood, results in behavior changes that may have occurred
- Identifying a subject program to use for the pilot that would allow the team to obtain the desired results
- Evaluate different methods of data collection
- Implement the pilot program
- Assess the pilot process for recommended improvements
- Document the process for potential use across the organization
- Strengthen the organization’s competency in Assessing How a Target Population Accepts Information

The following outlines the team’s Plan-Do-Check-Act Quality Improvement Process used for this particular QI project.

**Aim Statement:** To develop a process by November 2008 that can be used to assess how education program participants accept specific program information and determine how effective the impact of the program is on changing the participants behavior.

**PLAN:** An initial team was converged on August 2008, to brainstorm ways to address the particular competency of Assessing a Target Population on how they Accept Information. This criterion received a low score from the organizational self assessment and needed a process that could develop the organization’s competency in this area. This team consisted of subject matter experts, project leads, and quality improvement consultants – People Strategy Consulting, LLC. The focus quickly went to the LMPHW’s various tobacco cessation programs as one area that might lend itself easily to a post-assessment type project. Currently, the LMPHW has an array of tobacco and smoking cessation programs being implemented. However, there were no qualitative or quantitative measures in place for any of the existing programs that could assess each program’s effectiveness, how the information was accepted, processed and/or understood, or any results or behavioral changes that may have occurred for a particular participant as a result of their participation in a tobacco education program.

Initially, the team decided to assess a tobacco education program currently in existence that focuses on elementary-age children and how they accept this information. This particular program seemed ideal for this quality improvement program because there was no set curriculum and each instructor taught the class using their own methodology. It seemed to be a great opportunity to find out how much the children learned and retained, as well as seek feedback about the manner in which the program was conducted. Potential stakeholders for
this project were identified and the team developed a preliminary plan for administering a post-education evaluation form that would be given at the end of each school session. Additionally, other data sources of potential information were identified (i.e. state testing scores). Unfortunately, this particular tobacco education program could not be used as the pilot program as it did not fit into the quality improvement program timeline.

The group then pursued another tobacco education program administered by the LMHPH, the Cooper-Clayton Smoking Cessation Program. This 13-week program is administered at various LMHPH locations and other participating satellite locations throughout Louisville/Jefferson County Metro area. Cooper-Clayton is a nationally known comprehensive behavioral smoking cessation program used throughout the country.

Of the team members selected, one was a subject matter expert with regards to the Cooper-Clayton program. As part of her job assignment with the LMHPH, she facilitates Cooper-Clayton sessions and likewise coordinates all sessions being conducted throughout the Louisville Metro service area. The team learned there was currently no pre- or post-assessments given during this 13-week program. Additionally, there was no long-term follow-up to determine the success of the program in assisting participants permanently kick the smoking habit.

The team determined the improvement theories should be that pre- and post-assessments of the participants of this program were needed in order to determine the true effectiveness of this program. The hypothesis tested was that a detailed follow-up assessment was necessary to identify long-term success of the program for the participants.

DO: The SMEs of the team had the responsibility of identifying the participants of the study, as well as preparing questions for the post-program assessment document. The project lead coordinated all of the participants’ data and the consultants assisted by defining the process to be used to collect the data. It was determined that students from the University of Louisville School of Public Health and Information Sciences had previously prepared draft pre- and post-assessment documents for the Cooper-Clayton program. However, these documents had never been finalized nor used for any type of program assessment and it was these documents that served as the team’s starting point in developing a post-program assessment, which was the heart of this particular pilot project.

The draft assessments were sent to identified stakeholders (i.e. class facilitator’s, program developers) for review and comments. Those comments and feedback were then incorporated into the final post-assessment document.

The assessment focused on basic information such as: if the participant completed the entire class series, where the class was held, how long ago, why the participant elected to attend, how the participant heard about the class, what type of quit smoking aids were used, if the participant was currently a non-smoker or smoker, if the class had any impact on the
participant and his or her habits, the quality of the class and facilitator, and other demographic data such as age, race and gender.

The team then discussed various methods of data collection, such as mailing to participants, email, phone calls, etc. Because of the nature of the data in hand (i.e. – phone numbers) and the lack of experience of the health department staff in conducting post-assessments, it was unanimously agreed upon to engage a professional research firm to conduct calls to all participants who had graduated from the Cooper-Clayton program within the last 5 years.

The team created a telephone assessment document and outsourced the calling of participants to an independent professional research firm in order to maintain objectivity in the collection of the data. This ‘telephone’ friendly assessment was submitted to Horizon Research International, the firm selected to conduct the assessment.

The greatest obstacle encountered was gathering all of the basic demographic data and current contact information on the participants. This information was scattered among many facilities and instructors of the program as the class was held in 12 different locations over the last 5 years. All Cooper-Clayton facilitators in the greater Louisville area were contacted in order to obtain names and phones numbers of any participant that had completed the 13-week course within the last 5 years. This demographic data had been collected from the program participants at the beginning of each session. Because the data was scattered additional research time was required to compile a potential list of participants for follow-up. Additionally, the team did not know how much of this data was current or accurate.

Process flow charts were developed that demonstrated that the current process and the desired future process. Another tool used by the team was the final telephone post-assessment document. Illustrations of these tools are included in the Appendix.

**CHECK:** Once this data was received it was then arranged into a single document for submission to the professional research firm. In total, there were 143 Cooper-Clayton graduates in which the team was able to obtain contact information. These classes were held in 12 locations throughout Jefferson County, from January 2004 through July 2008.

The data collected was the answer to the specific questions on the questionnaire used by the research firm. The survey data from the interviews conducted with former participants indicated the information presented in the program did result in 71% of the respondents to quit smoking and continue to be non-smokers. Of these respondents, 91% indicated the program presented had a direct impact on them. The follow-up assessment did meet expectations of the study, which was to determine if the tobacco education/smoking cessation program presented had a direct impact on the participants’ ability to stop smoking.

The new process that was designed as an outcome to the QI pilot program was an improvement to the existing process. As previously stated, the current process had no system for follow-up, either long-term or short-term. There was no data that supported the
assumption that the program could be considered successful. The new QI process developed for this program incorporates a process for participant follow-up. This part of the process is critical when determining what education programs are successful as evidenced in healthy behavior changes by the participants. Additionally, comments and suggestions were gathered that can be used to improve the content and delivery of a health education program.

**ACT:** Incorporation of this post-education evaluation process is recommended for future Cooper Clayton Smoking Cessation Classes. Communicating this process to the participants has a two-fold benefit – one, correct contact information can be gathered along with consent for future contact can be secured; and two, participants may be more likely to continue healthy behavior habits if they know they will still be held accountable, even after the classes are done. The process of using an unbiased professional research firm proved to be an excellent way to gather data, not only quantitative data, but also qualitative data in the form of responses to open-ended questions.

The new process of conducting both a pre- and post-assessment of the knowledge level of the participants will be continued. Additional steps are necessary and are currently underway to incorporate the data compiled as a result of this process. The following list outlines the organization’s next steps:

- Dissemination of post-evaluation information to the educational program developers, facilitators and appropriate Health Department leadership to inform and provide data that can support continuous improvement of the educational program
- Identify other potential educational programs that this new evaluation process can be applied to throughout the Health Department
- Document how this educational assessment process is to be included in future (or existing) programs
- Develop a facilitator/contractor orientation that provides instruction on how this evaluation process is to be implemented
- Develop a policy to implement this evaluation process organization-wide
- Establish standardized measures of success and accountability

**Results**

The follow-up assessment did meet the expectations of the study because we were able to determine if the program content had a direct impact on the participants. Additionally, we were able to reach almost half of the program graduates. This exceeded the team’s expectations. This post-evaluation process will be recommended for implementation in future education programs sponsored by the health department.

In particular, results from our pilot program are reported below. The previously described data collection (survey feedback, participant demographic information and telemarketing survey) was collected during the months of September and October 2008. Data was received back
from the professional research firm at the end of October. Analysis from the data revealed the following information and is also presented in graphical form in Appendix C:

- Responses were obtained from 65 participants, representing a 45.5% participant rate of response
- Only 10% of the respondents attended less than 12 classes
- Reasons why respondent attended the class – 57% reported because other methods didn’t work; 12% reported because it was convenient; 26% reported because someone recommended it to them; 8% reported because of the possibility of free nicotine replacement; 17% reported because of the recommendation from their doctor; and 17% reported other – mostly due to seeing an advertisement for the class
- How respondents heard about the classes – 35% heard about the class through a friend or relative (those that do and don’t smoke); 34% heard about it through their physician’s office; 8% heard about it through television or radio; and 23% heard it other ways – mostly through paper advertisements, internet, organizations (health department, American Lung Association, employer)
- Other aids used to quit smoking – 85% of respondents reported using some type of nicotine replacement therapy; 66% reported going cold turkey; 26% reported using prescription medications (not including Chantix); 23% reported using Chantix
- In a related statistic – 26% of respondents have tried at least 3 different types of aids to quit smoking
- Of the respondents – 29% are currently smoking, although almost all of them did not smoke during the Cooper-Clayton classes
- 58% of those currently smoking started smoking less than one-year after the class; about 16% lasted one year before starting again; and 5% started again after 2-1/2 years
- 71% of the respondents did quit smoking and are currently non-smokers – and of those non-smokers – 91% reported that the Cooper-Clayton program had a direct impact on their ability to stop smoking
- Other influences that help the respondents quit smoking include the individual’s concern about their health, their family, and the facilitators and other participants of the classes

Ratings of Class, Facilitator, etc. 1 to 4 scale
(4 = Excellent/Extremely Helpful and 1 = Poor/Not Helpful at All)
N/A = not applicable

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Demographic Data of respondents:
1. Ever call the 1-800-QUIT-NOW line: 53 - No; 12 – Yes
2. Age: range from 28 to 84 – 1 (80s); 8 (70s); 18 (60s); 20 (50s); 10 (40s); 6 (30s); 1 (20s)

General Open Ended Comments Include themes such as:
- Need to assign support partners or sponsors like AA; support group for after the classes are over
- Classes need to go on longer than 13 weeks
- More evening classes needed
- Facilitators need to be ex-smokers
- Need nicotine replacement availability or coupons for same
- Need follow-up with individual after the 13 weeks for a while

Lessons Learned
The implementation of this pilot allowed the team to identify several areas of improvement that could be recommended to improve the organization’s competency of assessing how a target population accepts program information. Lessons learned included:

- Pre- and post-assessment instruments should be designed in conjunction with the curriculum development and included as an integral part of the program delivery
- Differing data collection methods must be considered to determine the appropriate approach for each particular program; if staff expertise does not exist within the organization, outsourcing is recommended
- Pre-educational assessments needs to be conducted in order to determine a current level of knowledge of the subject matter
- Baseline information from the pre-assessment should be compiled in order that accurate comparisons can made to the post-assessment and a true indication of information acceptance can be determined
- Post-assessment follow-up should occur in differing time intervals to identify long-term success of a particular educational program; time intervals are dependent upon the type of educational information is being conducted (i.e. – for the smoking cessation it is recommended that post-follow up occurs several times - immediately after completion, 6-months after completion, 12-months after completion, etc.)
- Participant’s demographic information along with consent for post-education follow-up should be collected at the start of any educational program
- Dissemination of post-evaluation data to the appropriate entities for incorporating continuous improvement in the organization
**Next Steps**

Next steps recommended for implementation as an outcome of the QI Process undertaking include the following:

- Dissemination of post-evaluation information to the educational program developers, facilitators and appropriate Health Department leadership to inform and provide data that can support continuous improvement of the educational program
- Identify other potential educational programs that this new evaluation process can be applied to throughout the Health Department
- Document how this educational assessment process is to be included in future (or existing) programs
- Develop a facilitator/contractor orientation that provides instruction on how this evaluation process is to be implemented
- Develop a policy to implement this evaluation process organization-wide
- Establish standardized measures of success and accountability

Implementation of the new QI process and the next steps as outlined above will benefit the organization as it directly impacts a national accreditation criterion that received a particularly low score. Understanding and developing this competency organization-wide (Assessing a Target Population for how they Accept Information) will enhance the organization’s ability to better serve its community as well as score higher during a future accreditation process.

**Conclusions**

Implementation of the pilot QI process revealed that while the team did not have pre-educational evaluation information that established baseline information, that the educational evaluation process was effective based on the post-evaluation results. From this process the team was able to develop solid lessons learned and recommendations that form the basis of what can become a standardized educational evaluation program within the Health Department. Implementation of the entire recommended process, including participant consent and contact information, pre-assessment prior to beginning an educational program (baseline data), post-evaluation of the ability of the target audience to accept information, as well as dissemination of the findings to the appropriate stakeholders allowing continuous improvement is extremely valuable and worthwhile endeavor. Implementation of this process organizational-wide can only benefit the Health Department’s accreditation potential as this competency is instilled across all departments.

Participation in this accreditation preparation has allowed the organization’s leaders to work together and evaluate and rank all aspects of the Health Department.

**Appendices**

Appendix A:  QI Storyboard Template
Appendix B:  Pilot Project Post-Assessment Tool
Appendix C: Current and Improved Process Flow Charts
Appendix D: Graphical Representation of Pilot Project Results