EXECUTIVE SUMMARY
Created in 1997 as a successor to the Cabarrus County Health Department, the Cabarrus Health Alliance is organized as an independent governmental entity and is incorporated as the Public Health Authority of Cabarrus County. The Cabarrus Health Alliance is located in Kannapolis, NC, and serves a primarily suburban population of 175,000. Using the Public Health Accreditation Board (PHAB) self-assessment and a quality improvement project, the Cabarrus Health Alliance addressed the area of verification and documentation of RN licensure with policy and procedure clarification and staff education. As a result, a greater number of staff can competently ensure that verification and documentation of RN licensure is completed in accordance with agency policy.

BACKGROUND/INTRODUCTION
Often the first to apply for new opportunities and pilot projects, the Cabarrus Health Alliance is recognized throughout the North Carolina public health system as a leader in innovation. Cabarrus Health Alliance believes that it has the commitment, leadership, and skills required to participate in a national accreditation process. Cabarrus Health Alliance’s participation in the NC Local Health Department Accreditation Pilot Program provided an opportunity to review processes from a new perspective that led to changes and improvements in several areas. Participation in the national accreditation process again required evaluation of Cabarrus Health Alliance processes. The agency anticipates that these findings will yield significant improvement and will eventually benefit other local, state, and national agencies as they learn from these experiences.

In today’s economic climate, it is essential to provide the most efficient and effective services possible. The emphasis on quality improvement was a very attractive component of participating as a beta test site. With Cabarrus Health Alliance’s previous experiences in quality improvement yielding tangible benefits to clients and the department, the agency sought to increase knowledge in this area and explore more avenues for improvement.

Cabarrus Health Alliance plans to apply for national accreditation in 2011. Having completed the North Carolina Local Health Department Accreditation Program process twice (2004 and 2008) and the beta test for PHAB, the agency is ready to take on the national standards. Through work with the public health incubator, the agency developed a document entitled A Vision for the Cabarrus Health Alliance as a Model Public Health Agency. Cabarrus Health Alliance is currently working to integrate the roles and responsibilities described in that document into daily operational practices. Achieving national accreditation status will align with the agency goal of becoming a model health department.

BETA TEST SELF ASSESSMENT
The Cabarrus Health Alliance began the process of the Beta Test self-assessment in January 2010. The accreditation coordinator met with the Leadership Team, comprised of the CEO/public health director, assistant public health director/medical director, human resources director, technology director, chief
financial officer, director of environmental health, health initiatives director, director of clinical services, director of community health, and leadership team member-at-large to discuss what approach the agency would take in completing the self assessment. It was decided that the Leadership Team and accreditation coordinator would serve as the Accreditation Team. During initial review, the self assessment document specific standards/measures were assigned to various team members. Because of the large number of standards/measures involved, the process was expedited by assigning entire domains to the team member that was felt have the most relevant experience to that particular area. After the assignments were made and team members began their search for documentation, some team members felt that they were not the most appropriate person for that standard or domain. In that case, adjustments were made and standards and domains were re-assigned. Each team member was then responsible for providing the documentation for their assignments in an electronic format to the accreditation coordinator. The accreditation coordinator compiled and organized the documentation for each measure.

Cabarrus Health Alliance had previously completed a re-accreditation for local public health departments in North Carolina in 2008 and followed a very similar process. The same person served as accreditation coordinator in both processes and was very familiar with the organization of the electronic data. Since the completed beta test self assessment was due March 31, 2010, a deadline for submission of all documentation to the accreditation coordinator was set for Feb. 22, 2010. The accreditation coordinator reviewed each document, comparing it to the required documentation for each standard/measure. To facilitate the review process for the site visitors, the accreditation coordinator also bookmarked and highlighted the relevant sections in longer documents. If the accreditation coordinator did not feel that the submitted documentation was adequate to demonstrate compliance with a measure, she would discuss the issue with the appropriate team member. That team member and/or the accreditation coordinator would then involve other staff members to uncover more appropriate documentation. It took the month of March to complete the process of gathering all of the documentation. Some team members did not submit their documentation by the Feb. 22 deadline due to other job responsibilities; they needed additional time to gather the documentation or had difficulty in interpreting what was needed. The Guide to Standards and Measures Interpretation was a very helpful document but did not provide total clarity on what was needed to show conformity for some measures. One area that created some consternation was when there was no “Required Documentation” but only “Examples of Documentation.” The team was never sure if it had provided enough of the right type of documentation to demonstrate conformity.

If the accreditation coordinator and the team member responsible for a standard/measure believed that there was adequate documentation, conformity to the measure was scored as being “Demonstrated.” If some of the documentation was missing, it was deemed “Partially Demonstrated” and if documentation was absent, it was scored “Not Demonstrated.”
Highlights from Self Assessment Results

<table>
<thead>
<tr>
<th>Domain</th>
<th>Standard and Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain 8.1.3B</td>
<td>Confirm that staff meet qualifications for their positions, job classifications, and licensure</td>
</tr>
<tr>
<td></td>
<td>- Documentation of the implementation of policies relevant to this measure was an area of weakness for Cabarrus Health Alliance, as identified by the self assessment. After discussion, this standard was addressed through the QI project.</td>
</tr>
<tr>
<td>Domain 8.2.2B</td>
<td>Implement an agency workforce development plan that addresses the training needs of the staff and the development of core competencies</td>
</tr>
<tr>
<td></td>
<td>- While Cabarrus Health Alliance had a Staff Development Policy, it did not include all of the elements of the workforce development plan including nationally adopted core competencies. Because of time constraints, it was decided that this would be a project for a later date.</td>
</tr>
<tr>
<td>Domain 1.1.3B</td>
<td>Collect additional primary and secondary data on population health status</td>
</tr>
<tr>
<td></td>
<td>- The 2008 Community Needs Assessment was submitted for documentation for this measure. This document represents a collaborative effort to collect and present both aggregated primary and secondary data including the sources of each.</td>
</tr>
<tr>
<td>Domain 4.1.1B</td>
<td>Establish and actively participate in collaborative partnerships and coalitions to address public health issues</td>
</tr>
<tr>
<td></td>
<td>- Cabarrus Health Alliance used its Childhood Obesity Prevention Project as an example of a collaborative partnership and coalition addressing an important public health issue. Documentation represents a description of a community-based task force that is working to prevent childhood obesity in Cabarrus County. It includes the membership list, a self assessment survey, and a discussion of the survey results.</td>
</tr>
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</table>

QUALITY IMPROVEMENT PROCESS (PLAN-DO-CHECK-ACT)

PLAN
Once the Beta Test self assessment and the site visit were completed, Cabarrus Health Alliance focused on a QI project. The Leadership Team reviewed and discussed the PHAB self assessment on May 11, 2010. At that time, members discussed those measures for which the agency did not demonstrate conformity, along with ways in which improvements could be made. This included one measure that Cabarrus felt was not demonstrated and five others that were partially demonstrated. Upon further discussion with the health director, the director of clinical services, and the PHAB accreditation coordinator, one of these was selected for the QI project.

The measure selected was 8.1.3B, “Confirm that staff meet qualifications for their positions, job classifications and licensure.” Two others discussed were 8.1.1B, “Succession plan for critical positions,” and 8.2.2, “Implement an agency workforce development plan.” Because of the time limitations involved, Cabarrus Health Alliance selected 8.1.3, “Confirming qualifications and licensure.” Another factor in this selection was an effort to broaden staff experience with the plan-do-check-act (PDCA)
process to a non-clinical area of the agency. Clinical services have used the PDCA model for a number of different improvements but Cabarrus Health Alliance had not used PDCA in an administrative capacity.

**Assemble the Team**
The QI team was then assembled. Because the QI project involved the verification of credentials in the hiring process, the human resources director was included in the team. The director of clinical services was an integral member since most of the nurses hired fall under her supervision and she is the agency’s QI expert. The technology director was included because of anticipated the need for expertise in the area of databases. He is also very experienced in business process analysis, which the team felt would be an asset in this process. The PHAB accreditation coordinator was the coordinator of this project as part of the PHAB Beta test and because of the QI training she had received. All members were willing to participate in this project. The main barrier to participation was finding time in the busy schedules of the participants. Everyone was very flexible and willing to meet whenever the team could schedule a meeting. At the initial meeting, it was decided to expand the team by adding a human resources specialist whose responsibility was to process the applications. The team felt that her intimate knowledge of the hiring process would be instrumental in understanding the problem.

**Identify the Problem**
All Cabarrus RNs have the appropriate licensure, but the agency’s policy and procedure to verify and document this was not always being followed correctly. An audit by a funding source revealed that the documentation of license verification for one RN did not comply with our current policy. To determine the extent of this problem, an audit of all nurses hired within the last two years was conducted. The results are illustrated in the following chart:

<table>
<thead>
<tr>
<th>New RNs Hired</th>
<th>Valid License</th>
<th>Proof of Licensure Checked Prior to Hire</th>
<th>Documented Correctly</th>
<th>Percentage of Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>34</td>
<td>30</td>
<td>24</td>
<td>70.6%</td>
</tr>
</tbody>
</table>

The aim statement went through a series of changes during the course of the QI Project as the project scope was narrowed to coincide with current policies and procedures. The following chart indicates the progression:

<table>
<thead>
<tr>
<th>Date</th>
<th>Aim Statement</th>
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</thead>
<tbody>
<tr>
<td>July 21, 2010</td>
<td>Using a new process 100 percent of all new hires’ credentials or qualifications will be verified prior to employment by Nov. 30, 2010.</td>
</tr>
<tr>
<td>August 26, 2010</td>
<td>By Nov. 30, 2010, 100 percent of those present employees who were hired within the last two years will have qualifications verified.</td>
</tr>
<tr>
<td>September 22, 2010</td>
<td><strong>Final Aim Statement</strong> By Dec. 4, 2010, 100 percent of supervisors responsible for hiring nurses will have increased their knowledge of the RN verification process as demonstrated through a score of 100 percent on the post-test.</td>
</tr>
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</table>

**Examine the Current Approach**
The current process of hiring nurses, including verifying and documenting the RN licensure, was analyzed by creating a flow chart (see Appendix B). The team discovered that the current process had several variations in when and if the actual verification and documentation occurred. To obtain a better
understanding of why there was a lack of adherence to the RN verification policy and procedure, a root cause analysis using a fishbone diagram was undertaken (see Appendix C). The fishbone diagram revealed that there was some ambiguity in the procedure, lack of accountability, and lack of awareness on the part of the hiring supervisor of exactly what to do.

Identify Potential Improvements
Potential improvements included rewriting the policy to clear up ambiguity about who is responsible for verifying the RN licensure, moving the policy out of clinic policies into the General Policies Section of the policy manual and our intranet policy section, creating a checklist for supervisors to use when hiring RNs, monitoring the system and creating accountability, and having a lunch and learn session to educate managers on the correct procedure. To determine the baseline of the knowledge of the verification procedure, a pre-test (see Appendix D) was administered via Survey Monkey to the eight managers who have the responsibility of hiring RNs. Out of a possible five points, the average score was 3.13 or 62.5 percent. The results of the pre-survey are displayed in Appendices E and F.

A question on the pre-survey that was not scored was “What would help you follow this procedure?” A Pareto Chart in Appendix G displays the recommendations for improvement.

Develop an Improvement Theory
The team developed the following improvement theory: If provided an education session including clarification of the written policy and a checklist to follow during the hiring process, then the supervisors hiring RNs will increase their knowledge on the procedure to verify RN status and appropriately document the verification prior to employment as evidenced by an improvement on the post-test scores. The goal was to improve the score on the post-survey to five correct answers out of five, or 100 percent, after an educational intervention. The change will be designated an improvement if the procedure for verification and documentation of RN status is followed correctly when future RNs are hired.

A lunch and learn session for the supervisors responsible for hiring RNs was planned to review the clearer, revised policy and procedure and how and where to access it, along with a checklist to follow when hiring. The data to be collected included the number of attendees and the scores on a post-test administered after the educational session. The results of the post-test would be analyzed in the same manner as the pre-test. Other data to review would be an audit of the documentation on any new RNs being hired.

All QI team members worked on rewriting the Verification of Nurse Practitioner, Registered Nurse and Licensed Practical Nurse Licensure policy and procedure to clarify the policy and planning the educational component of the lunch and learn. The human resources director would conduct the lunch and learn with the human resources specialist and the accreditation coordinator presenting results of the audit and the pre-survey. The Survey Monkey post-survey would be administered by the accreditation coordinator with all members helping to analyze the results. The human resources specialist would monitor the documentation on newly hired RNs.

During this planning process, initial perceptions of the problem changed. The initial intent was to change the way that the agency verified all qualifications for all positions at the Cabarrus Health Alliance. With only a few exceptions, typical protocol was to trust applicants’ qualifications without verifying them because there was no written policy and procedure to follow. The exception was the Verification of RN and LPN Licensure policy. The human resources director suggested hiring an outside firm to verify the
qualifications and to perform background checks on the selected applicant. Simply creating a new procedure was not actually a QI project, so the team narrowed the scope to coincide with a policy and procedure the agency did have, but was not necessarily always following, concerning verification of RN licensure. While working through the flow of the process and evaluating the written policy, the team realized that there was some ambiguity as to whose responsibility it was to actually verify and document the licensure. It also became clearer that the timing of the verification and documentation could make the process more efficient. The team decided to have the verification and documentation occur prior to the interview with the applicant in order to eliminate from the selection any applicants who did not have a license or had any violations listed on their license. The team also decided to expand the policy and procedure to cover nurse practitioners.

**DO**

All managers who are responsible for hiring RNs were invited to attend a lunch and learn session on Oct. 21, 2010. During that session, the team presented the information to the attendees as planned. One hundred percent of the invited managers attended the meeting. One week after the lunch and learn, a post-survey was administered via Survey Monkey. There was a slight minor computer error in getting the responses back from the managers. The team only received seven of the eight responses although everyone stated that they had responded. Because Survey Monkey is anonymous, the team was unable to determine who the missing respondent was so it had to re-administer the Survey Monkey to everyone again. Responses from all eight managers were received the second time.

**CHECK**

The data from the post-survey is displayed in Appendix H. Out of a possible five points, all managers scored five or 100 percent, which met the goal. This indicated that there was a definite increase in knowledge of how to verify and document RN licensure correctly. The team could not determine if there was an actual improvement in behavior because no new RNs have been hired since the educational session.

**ACT**

The team is adapting the test to gather additional data to measure if the increase in knowledge of the policy will actually result in compliance with the policy. The revised policy and procedure, Verification of Nurse Practitioner, Registered Nurse and Licensed Practical Nurse Licensure, was approved and signed by the CEO/public health director and is now part of Cabarrus Health Alliance’s General Policies, located on their intranet. When hiring new RNs in the future, the human resources specialist will monitor the process and collect data to ensure that the policy and procedure is being followed. Data collected will be the number of correctly completed checklists for newly hired employees and the complete documentation of the verification of the RN status. If analysis of this data indicates an improved compliance with the policy, the change will be adopted and review of this policy and procedure along with others will be part of supervisory training whenever there is a new manager that is responsible for hiring RNs and part of the annual review of policies and procedures.

**RESULTS, NEXT STEPS, AND ACCREDITATION**

Undertaking this QI project was a step on the path to building a culture of QI within the Cabarrus Health Alliance. In the beginning of the process, there was some skepticism as to the importance of completing such a project. It was explained to the team members that it was the “process” of improvement that was important, not necessarily the end result. Taking the time to go through the flow process was an enlightening experience in itself, revealing inconsistencies that had not been evident. The search for the
root cause by completing a fishbone diagram was an exercise that helped elucidate the real problem and was a technique that could certainly be used in a number of different situations. The actual collection of baseline data, including the audit of the past two years and the pre-survey, was revealing. The analysis of the data using different graphs was a great visual aid demonstrating the results. The fact that the Cabarrus QI team consisted of several members with little or no experience in the QI process broadened the number of staff receiving firsthand experience in this process, expanded their knowledge of different tools, and increased their appreciation of obtaining data to show real results. It inspired them to learn more about QI and other tools they might find useful in other projects they might lead.

As part of Cabarrus Health Alliance’s Strategic Plan and further acknowledged by the self assessment, quality improvement will be a focus in the future for the agency. Plans are underway to train more staff members in the QI process and create a culture of QI for the entire agency. Two QI projects are already in the planning stage for two areas that have not previously used a defined QI process. The Women, Infants, and Children program will be participating in a QI project using a Kaizen process, which will be a learning experience for the agency, and the Environmental Health Team is also planning to focus on QI. The team believes (and hopes) that as more areas experience QI projects and discuss their results with others in the agency, that enthusiasm and expertise will spread. Success will build on success.

The Cabarrus Health Alliance will pursue national accreditation when it becomes available. The beta test self assessment and the report from the site visitors indicated that the agency has many strengths with which to pursue accreditation. Cabarrus Health Alliance is developing the ability and desire to use QI as a way of improving weaknesses (i.e., those measures that were not demonstrated) to prepare for the next self assessment.

LESSONS LEARNED
After the completion of the self assessment and site visit, the Accreditation Team completed a hot wash to determine what went well and what did not. The manner in which the domains and standards were assigned would be processed differently. Though it is time consuming and fairly tedious, it would be advantageous to proceed through all of the measures as a group and offer examples that would apply to each one. Many times staff members work in silos and are only aware of what goes on in their area. With input from a larger group with a broader perspective, there is a greater chance of having a more complete self assessment and perhaps more appropriate and meaningful documentation to demonstrate conformity. A specific person could still be assigned to provide the actual documentation, but the assignment might be more appropriate. This process could also improve buy-in from the entire team since everyone would be participating more as a group instead of relying on others to provide all of the answers. While working on the self assessment, it would have been helpful to have used more technical assistance that was offered by PHAB and NACCHO regarding the interpretation of different measures.

A lesson that is repeatedly learned but somehow never remembered is that everything takes longer than you think it will. It took longer for everyone to uncover the documentation for the measures and then to forward them to the accreditation coordinator. It took much longer than expected to rename and upload all of the documents to the PHAB website. When working with the QI Team, it took much longer to find meeting dates and times when all members could attend. The Cabarrus accreditation coordinator was a part-time employee whose time was mainly devoted to this project. It would have been very difficult for a full-time employee with full-time responsibilities to have this additional load added to their already busy schedule.
The site visit preparation was a great opportunity for the agency to clean out and clean up. Cabarrus Health Alliance wanted to look like an agency that was a good candidate for national accreditation. Because the site visit team set the agenda for the visit and because the agency did not receive the agenda until just a few days before the visit, the team found it difficult to make specific plans. This included planning for certain staff members to be present at specific times, luncheon plans, and scheduling meetings with community partners and board members. It would have been helpful to have had earlier and additional dialogue and input into setting the agenda for the site visit. Clarification of roles and expectations for the site visit team would also have made a more comfortable site visit experience.

Serving as a beta test Site for National Public Health Accreditation was an opportunity for Cabarrus Health Alliance to analyze what it does and how it does it and compare that with national standards. It has allowed the agency to increase knowledge and experience in quality improvement, hopefully resulting in provision of improved services to advance the public health of the residents it serves.

APPENDICES

Appendix A: Storyboard

Additional Appendices:

Appendix B: RN Verification Process
Appendix C: RN Verification Process Root Cause Analysis
Appendix D: Pre-Survey Questions
Appendix E: Pre-Survey Results by Question
Appendix F: Pre-Survey Percent of Respondents with Correct Answers
Appendix G: RN Verification Survey Recommendations for Improvement
Appendix H: Post-Survey Percent of Respondents with Correct Answers