

# Accreditation Beta Test Quality Improvement Project: Final Report

## HENNEPIN COUNTY HUMAN SERVICES AND PUBLIC HEALTH DEPARTMENT

### INCREASE HEALTH CARE FOR THE HOMELESS CLINIC VISITS AND ENCOUNTERS AT THE PEOPLE SERVING PEOPLE SHELTER

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#### EXECUTIVE SUMMARY

The Hennepin County Human Services and Public Health Department (HSPHD) is part of the Hennepin County Government system. Hennepin County, the largest county in Minnesota, is comprised of 46 municipalities including Minneapolis, Minnesota's most populous city. The county encompasses 611 square miles with an estimated population of 1.1 million. Using feedback from the Public Health Accreditation Board (PHAB) self assessment and a quality improvement (QI) process, the department sought to remedy a growing concern that while the number of homeless individuals in Hennepin County has increased, the number of clinic visits at the largest family shelter had decreased. Using the beta test project framework, HSPHD planned to implement a QI project to increase the number of homeless clients seen in the clinic. Unfortunately, due to issues implementing the improvement theory the QI team will develop a new improvement process that provides more coaching and staff support. HSPHD will repeat the test and check results in March 2011.

#### BACKGROUND/INTRODUCTION

HSPHD pursued the beta test opportunity to further the proud tradition of protecting and promoting the health of Hennepin County residents. The department is recognized locally and nationally as a leader in public health. Proven competence and three specific motivations drove the application:

*Opportunity to incorporate more rigorous QI methodology.* While HSPHD has implemented numerous and many successful business model and process improvement initiatives, experience with true QI had generally been focused on clinical and/or individual client centered programs. HSPHD wanted to further its expertise in QI and apply more exacting QI methodology to a broader array of programs and services. The staff was particularly interested in learning to use data to improve practice, improve target resources, and bring the department to the next level of excellence.

*Expand skills and knowledge.* The opportunity to serve as a beta test site would stretch staff skills, build a knowledge base and in turn prepare HSPHD to better meet the needs of residents. Likewise, staff wanted this expanded knowledge base to prepare to serve as a leader throughout the broader department and beyond. Furthermore, as a key partner in a myriad of collaborative relationships, HSPHD would be a more valuable asset by bringing increased QI skills to the table.

*Maximize the talent and curiosity of staff.* HSPHD knew it had the ideal employee mix for this opportunity. Our professionals are professional, eager learners who have energy and enthusiasm around QI. Leadership was anxious to take advantage of this opportunity for growth, both professionally and organizationally. Most importantly, management wanted to participate in an effort to improve the professional practice of public health.

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#### BETA TEST SELF ASSESSMENT

HSPHD used a team approach to the self assessment process. A group of subject matter experts, along with the beta test accreditation coordinator and a process facilitator formed the beta test team, whose charge it was to collect and prepare materials to meet the self assessment requirements. The team met for the first time in December 2009 and continued to meet up through the submission deadline to compare documentation, solve problems, and seek advice of colleagues on the selection of documents.

The subject matter experts, covering the areas of maternal child health, environmental health, health promotion, and communicable disease control, served as domain owners. Domain owners were responsible for collecting and cataloging the documentation.

The domain owners, following the Guide to Standards and Measures and the Interpretation of Standards, were charged with collecting only that documentation that they could defend as demonstrating conformance to the measures—essentially providing the first level of scoring. The second level of scoring was done by the beta test coordinator in collaboration with the facilitator. Together, they confirmed the scoring and where necessary, chose between equally worthy documentation. Had there been more time, the team would have developed another level of oversight, perhaps a steering committee made up of departmental leadership to evaluate and score the documentation. Doing so would have added a level of objectivity and confidence to the scoring.

The role of the beta test accreditation coordinator was to provide oversight to ensure compliance with beta test protocols, serve as a technical expert, communicate with internal and external partners, and serve as the lead at beta test team meetings. In addition, the accreditation coordinator served as the liaison between PHAB/NACCHO and the beta test team by sharing learnings from webinars, trainings, and beta test colleagues.

A facilitator was brought in to collaborate with the beta test coordinator and provide support in the form of meeting management; process facilitation; collecting, cataloging, and uploading documents; and preparing and submitting reports. The facilitator also took part in webinars.

Challenges with the self assessment fit into five key areas:

- 1) Working within the tight timeline established for the project. The team knew the project timelines were tight, but at times, this was more challenging than expected. The group was not always able to do the due diligence it would have liked in order to select the best fit for each measure.
- 2) Managing the enormous amount of documentation required to meet the measures. It was a tedious process to gather, select, label, catalog, and upload the hundreds of documents required. Furthermore, since a template was not provided, HSPHD was on its own to develop a naming convention and filing system for managing the documentation. The team had hoped to develop a secondary spreadsheet to cross reference the documents in order to manage redundancy, but time did not allow for this process.
- 3) Balancing the desire to demonstrate both the depth and the breadth of public health capabilities. The team thinks it could have done a better job telling the story of Hennepin County public health by choosing a narrower and deeper focus in responding to the measures. Instead, it chose to reflect the broad range of public health activity which may have come at the expense of providing a more cohesive picture of efforts.
- 4) Knowing what level of the organization in which to focus the collection efforts. Because the department is within a large social service agency, at times the team was not clear where to focus

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document collection efforts. For example, policy-related measures could have been documented at the super-department level, the service area level, or the program level.

- 5) Understanding the interpretation guidance document when it differed from the guide to standards and measures document. Overall, the group found the interpretation guidance very helpful but did experience confusion when the number and type of documentation requested differed between the two documents.

In general, the team had a positive experience completing the self assessment, and its members have four key experiences to share:

- 1) Commitment and interest from the top of our organization. Public health efforts in Hennepin County fall within the broad Human Services and Public Health Department. This super-department, largely focused on social services, is spearheaded by an executive committee. This executive committee supported this work by approving the application process, freeing up staff time across numerous program areas to conduct the self assessment, participating in the site visit, and showcasing beta test efforts in leadership venues.
- 2) Willing and committed beta test team. Hennepin County is fortunate to have an exceptional caliber of public health professionals who were eager and tenacious in collecting the documentation.
- 3) Excellent support from PHAB and NACCHO. The organization has benefited greatly from the websites, webinars, e-mails, trainings, and one-on-one technical assistance from PHAB and NACCHO.
- 4) Quality of the site visit. The agenda, request for further documentation, and guidance on interviews provided in advance was instrumental in preparing the team for the site visit. Furthermore, the team was impressed with how well prepared the site visitors were, and the level of knowledge they had of HSPHD's self assessment and of the department in general. Finally, the group was very pleased with the detail, quality, and relevance of the site visit report. HSPHD is currently using the site visit report as the foundation for their after action report. The after action report will provide the framework for follow up and help prepare the team for the official accreditation process.

#### Highlights from Self Assessment Results

Standard/ Measure	Standard and Significance
Domain 1.1.1	Demonstrate that a surveillance system is in place for receiving reports 24/7 and for identifying health problems, threats, and environmental hazards <ul style="list-style-type: none"><li>• Three of the four components required for this measure were successfully documented: defining the system, confidentiality, and contact information (in an appendix of the all-hazards plan). The site reviewers were not able to find reports of testing the 24/7 contact systems as required by this measure. This will be addressed in the after action improvement plan.</li></ul>
Domain 6.1.3 B	Inform governing entity and elected officials of needed updates of laws and make recommendation for action <ul style="list-style-type: none"><li>• Documentation provided by Hennepin County did not show evidence that the department informed the governing bodies/elected officials of the</li></ul>

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	laws that needed to be revised or updated. Several position papers within the department were used to inform governing bodies but a process needs to be developed to track how, when, and who receives this information. This will be addressed in the after action improvement plan.
Domain 7.2.3 B	Lead or collaborate in culturally competent initiatives to increase healthcare access for underserved and at risk populations <ul style="list-style-type: none"><li>Identifying and implementing strategies to improve access to healthcare services was an area of weakness for the department. Assessments show an increase in homeless shelter usage but a decrease in medical appointments within the Health Care for the Homeless Project. HSPHD felt that this standard would be ideal to address through a formal QI project.</li></ul>
Domain 9.2.1	Establish a quality improvement plan based on organizational policies and direction <ul style="list-style-type: none"><li>There are five required components of this measure in defining a QI plan. The documentation provided did not include all of these components specifically in the area of evaluating the effectiveness of the QI activities adopted. HSPHD is convening a work team comprised up public health program managers to develop strategic priorities and a corresponding agency-wide QI plan.</li></ul>

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

##### PLAN

###### *Assembling the Team*

In addition to the beta test team that was formed to complete the self assessment, a QI team was developed to focus on the QI aspects of the beta test project. QI team members were identified and chosen based on their knowledge and role with the Health Care for the Homeless Project (HCHP). Team leaders also selected staff that had experience working at the project's clinic at the People Serving People (PSP) homeless shelter in Minneapolis. Ultimately, the team included not only the full spectrum of operational, clinical, and managerial perspectives but also seasoned and new staff.

The goal was to create an interdisciplinary team in order to develop a broad base of support and to ensure that meetings would be efficient. Also, by having this broad base, the team was more confident that roadblocks would be identified early and addressed proactively.

Overall, there was relatively easy buy-in and commitment to the project. The group anticipated barriers and proactively addressed them by doing the following:

- Respecting time limitations by having the group choose the meeting time that caused least disruption to their schedules.
- Meeting on site at the PSP homeless shelter where the majority of staff is housed instead of asking them to travel to the office where the non-clinical staff work.
- Ensuring and delivering on the commitment that meeting time would be used efficiently. All meeting minutes, agendas, and handouts were prepared and distributed in advance.

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- Insisting that commitments to the process be kept and that ad hoc work and assignments were completed and reported to the QI team on schedule.

With the exception of adding a new manager to the QI team, the composition of the team did not change during the course of the project. In hindsight, HSPHD would have benefitted by expanding the team to include more staff who worked directly at PSP.

#### *Identifying the Problem*

The beta test self assessment process illuminated a number of issues needing attention within HSPHD. One of the self assessment's measures rated "partially demonstrated" was in Domain 7, "Identify and implement strategies to improve access to healthcare services." From the variety of issues that fit within this standard, the team narrowed its focus to a significant problem being faced in HCHP: while the number of homeless persons is increasing, the number of reported visits and encounters at the PSP shelter, the largest family shelter in Minneapolis, has gone down. The team knew that exploring this problem had significant merit and was a good fit with NACCHO QI guidelines. However, several other projects were considered, including the following:

- Improvement of reporting capabilities from EPIC, the electronic medical record system;
- Improvement of reporting capabilities from Digital Health Department, the environmental health database; and
- Improved testing of the 24/7 disease surveillance contact system.

The group used the brainstorming technique to develop a list of potential problems that might be driving this reduction in clinic encounters and visits at PSP. The brainstorming process was a very useful part of the overall project, not only because it offered the opportunity to identify a wide range of potential problems, but because it also provided a forum for everyone to share their individual views across a number of issues.

The brainstorming process was the beginning of the exploration of the connection between the mid-2009 implementation of EPIC, the electronic health record (EHR), and a corresponding decrease in the number of visits and encounters being reported at PSP. One likely explanation considered was that while HCHP had historically operated on a walk-in basis, an appointment-based system was implemented in tandem with EPIC. What happened in this transition? Was this new service delivery model responsible for the reduction in numbers? In order to explore this, the team developed their original aim statement:

By Dec. 4, 2010, increase by 10 percent the number of encounters from (number)/month to (number)/month; and the number of clinic visits from (number)/month to (number)/month at PSP.

After further consideration, the group determined that the original aim statement did not accurately measure changes in the clinic's no-show rate. Rather than the number of encounters, provider productivity was selected as a better measure because the PSP clinic schedule is flexible and inconsistent. Measuring provider productivity controls for this inconsistency and serves as a better measure to reflect changes in no-show rates. The original aim statement was revised to reflect this new approach:

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By Dec. 4, 2010, increase by 50 percent the number of provider and public health nurse (PHN) encounters per clinic hour from less than one per hour/per provider to 1.5 per hour/per provider.

#### *Examine the Current Approach*

The team examined the current approach by developing a survey comprised of four questions:

1. How do clients come to you (e.g., walk-in, referral from shelter team, outreach, etc.)?
2. What do you record in EPIC (e.g., medical appointment information, demographics, helping with transportation, lab results, etc.)?
3. What sorts of follow up do you do with clients (e.g., making future appointments and referrals, providing immunization data, obtaining medical records from other providers, etc.)?
4. What ideas do you have to better reflect in EPIC the volume of work that you do?

The survey was distributed and completed by eight staff, all of whom played key roles in clinic operations. Survey results were compiled and the results were used to inform the root cause analysis.

A fishbone diagram was used to conduct the root cause analysis. Much like the original brainstorming session that was used to generate the list of potential problems, the root cause analysis netted many benefits including overall buy-in to the project, mutual understanding of the problem, and a realization of how one operational process impacts another. It became very clear that one error would be expansive and increasingly problematic as it moved through the system.

The results of the root cause analysis identified a number of key issues. The fishbone diagram went through a second draft process where issues were added and spines were re-categorized. From this, the group went through a nominal group process where issues were ranked and prioritized. The number one improvement to be tested was in the area of EPIC data issues, specifically clinic no-show rates. The group determined that provider productivity was the best method to measure changes in the clinic's no-show rate.

#### *Identify Potential Improvements*

Once the QI team began to discuss potential improvements, it was clear there were many options for resolving the issue. The following were among improvements that were not selected:

- **Morale:** While a definite concern at the PSP site, the topic is too broad, difficult measure, and does not lend itself well to the time-limited nature of this QI project.
- **Internal PSP outreach:** There is general agreement on what improvements can be made to improve internal PSP outreach, and that these improvements can be made outside the scope of this project.
- **Customer service:** An important issue that spans the entire HCHP and in particular, the PSP site. However, improvements here require collaboration and problem solving beyond the scope of this project.
- **External referral issues:** An issue across all programs in the Human Services and Public Health Department that would require extensive exploration and remedy beyond the scope of this project.

The solution selected centered on EPIC data issues. At the time of EPIC implementation, PSP clinic flow was modified to accommodate the lengthy registration and scheduling process required by the new

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system. PSP staff did not have the skills to operate a clinic schedule on a walk-in basis and in response, clinic flow was modified to an appointment-based model. The QI team believed that the appointment-based system that was implemented was cumbersome and created barriers to efficiently seeing clients. The system added a level of complexity to clinic flow that distracted and overwhelmed clinicians and created barriers in communication between registration staff and provider staff, which led to further confusion and frustration. Additionally, by focusing on EPIC data issues, the team believed it would have the potential to positively impact the other problems that were identified but not selected.

#### *Develop an Improvement Theory*

The improvement theory tested was that by reverting to a primarily walk-in service delivery system, the number of reported encounters at the HCHP PSP clinic would increase. The working assumption was that if the department removed the barriers that the EPIC appointment scheduling system created, that clinic no-show rates would decrease, providers would be more productive, and thus able to see more clients.

A policy was drafted for the walk-in service model and shared with a small group that provided feedback. This feedback was then incorporated into a second draft that was approved at the QI team meeting on Oct. 14, 2010. All HCHP PSP staff were trained in the new policy.

The policy began in mid-October 2010. The original plan was that data would be collected at the end of October 2010 and again at the end of November 2010 for the purposes of the project. Because of the short timeline of the NACCHO QI project and issues uncovered during the check phase, data will continue to be collected through March 2011.

The original plan for data collection included three main sources:

1. EPIC: Total provider encounters
2. Time cards and staff schedules: Nurse practitioner (NP) and Licensed Practical Nurse (LPN) time
3. HCH Project clinic schedule: Available clinic hours

The baseline data consists of provider encounters per clinic hour averaged for the two month time period of August and September, 2010. This analysis demonstrated a baseline encounter of .79 encounters per provider per clinic hour.

#### Definitions:

- Provider: Registered nurse (RN), PHN, NP and medical doctor (MD). This does not include managers or supervisors; financial case aid; registration and scheduling staff; or certified medical assistants.
- Encounter: An interaction between a provider and a client that is documented in the EHR that meets medical billing and coding criteria.
- Clinic hour: One 60-minute hour when the provider is in clinic and available to see clients. In other words, posted clinic hours minus holiday time, unplanned time off, training time, and meetings.
- Client: A PSP resident of any age seeking preventive and acute health care services at PSP.

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The table below describes the roles and responsibilities of each team member in the test.

<b>Name</b>	<b>Roles and responsibilities</b>
Stephanie Abel	Responsible for reporting and productivity monitoring. Oversaw implementation of measures
Amy Anderson	Subject matter expert who brought a historical overview and broad perspective to QI
Mustafa Batal	Implementation and communication on-site at PSP
David Brummel	PHAB Coordinator, overall responsible for beta test project
Dan Goodermont	PSP location liaison. Provided background on site needs and expectations. Provided broad understanding and insight into homeless issues and trends
Gina KC	Knowledge and expertise in EPIC and how registration and scheduling practices impact billing operations
Cyndi King	Full-time LPN responsible for clinic flow at the client registration and scheduling level
Susannah King	Common sense expert, historical perspective, previously responsible for pre-EPIC productivity reporting
Susan Moore	Project management and process facilitator
Lisa Mueller	Manager, questions assumptions (also new to her role which adds a level of objectivity to the process)
Cindy Spolyar	Oversees registration and scheduling processes; knows what systems work in other public health clinics; overall communication on new policies and procedures; broad knowledge of EPIC
Carol Thunstrom	Full-time PHN whose role spans both clinical, and registration and scheduling; broad understanding of impact of new policy from both perspectives

Perception of the problem changed during the plan phase of the project. Initially, the team planned to collect encounter and visit data, comparing post intervention with pre-intervention. After talking with the clinic manager, team leaders determined that the better measure was really provider productivity because it would allow the team to control for more variables such as clinic hours and provider time.

#### **DO**

The improvement process did not proceed as planned. Although the walk-in policy was developed by staff persons responsible for its implementation and communicated to all individuals involved, it was discovered at a check-in meeting one month into the do stage that the policy was not implemented. The team was surprised to learn this and discovered there were two central issues: (1) a breakdown in communication about how and when the policy was to be implemented and (2) a roadblock in the registration/scheduling process with how walk-in client arrival data was entered. Client arrival data is entered on all clients as they come into the clinic. It appears there were issues with how walk-in arrivals were managed in the EHR including confusion around how clients were checked in as part of the arrival process. As a result, a tip sheet was developed and is being used to remedy these issues.

The data collection process went relatively well and the team was easily able to collect the data needed on appointments, client specific scheduling histories, completed encounters per clinic hour, and NP hours. However, one issue discovered in the do phase was that PHN data was difficult to capture and

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analyze because of how and when PHNs document their time. Consequently, results will only reflect NP time. Undertaking this QI project brought this issue to light and efforts are now underway to determine an efficient method of tracking non NP provider time.

#### CHECK

Unfortunately, the policy was not implemented in mid-October as planned. Consequently, there has been little to measure and staff is unable to determine if the improvement process had the intended effect. Because of this, the QI team will develop a new improvement theory that provides more coaching and support to staff to ensure the walk-in service policy is effectively implemented.

The next step is to repeat the test and do the following:

- Meet to re-group, solve problems, and adjust the policy. Staff will invite and include at least one additional NP in this meeting;
- Come to an agreement on the policy by all those involved in implementation;
- Select a new start date;
- Identify a registration/scheduling “super user” to be onsite to oversee implementation;
- Set shorter term check in points;
- Measure study results in March 2011; and
- Continue to meet as a QI team for the foreseeable future. The team will also consider tackling some of the additional issues identified in the root cause analysis.

The check phase was very helpful in pinpointing what went wrong in the team’s do phase and gave them an opportunity to address the problems. Without this formal check phase, the team may not have known there was a problem with the implementation of the policy, much less have been able to measure improvement.

#### ACT

The team has not fully implemented the improvement process for reasons outlined above. Challenges, centered on communication and internal processes, need to be resolved in order to make the improvement process effective. This QI process has given the group an opportunity to explore a longstanding problem that has gone unaddressed due to a lack of formal process. The act phase will include re-running the do phase to fully implement the improvement plan. HSPHD will provide more coaching and support to staff to ensure that the process is implemented as planned.

#### RESULTS, NEXT STEPS, AND ACCREDITATION

Participating in the beta test solidified HSPHD’s commitment to pursuing actual accreditation when available. The external validation and objective feedback provided through the PHAB self assessment and site visit process has highlighted multiple areas of improvement for the department. Although HSPHD was able to demonstrate strong QI efforts at the department level and evidence of QI at the program level, the site visit team found no evidence of QI activities conducted at the public health management level. In response, HSPHD produced an improvement plan modeled after an emergency preparedness after action report and has begun developing public health specific strategic priorities to link department level performance management with program level QI projects. The goal is to address deficiencies highlighted in the self assessment and site visit report and institutionalize QI as a method to effectively document work, demonstrate standards, and improve health outcomes of Hennepin County residents.

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#### LESSONS LEARNED

The self assessment provided an excellent opportunity to explore the depth and breadth of public health activity in Hennepin County, and to the team found the self assessment process to be affirming. Through this process, HSPHD was able to determine where their staff need to focus our efforts, not only to prepare for formal accreditation, but also to document the work they do and identify department level QI needs. Staff found it somewhat challenging to collect and organize the documents in a manner that made them accessible and easily understood. A recommendation from HSPHD is that accreditation sites invest the time up front to set up a document filing system and rigorously maintain it throughout the entire process. Further, the department recommends doing any and all document labeling, PDFing, and the like throughout the collection process rather than waiting to do it all at once at the end. Finally, team members think it would be beneficial to develop a spreadsheet or other tool to cross reference and manage the documents.

The QI project gave the department an opportunity to explore a problem it may otherwise have overlooked. Using the beta test QI framework helped the team shape a meaningful intervention within a defined time period. Members found it helpful to have a variety of tools to choose from, and they appreciated how relatively straightforward the QI reporting process was. The PDCA cycle provided a simple framework to follow and made it acceptable to cycle back through the process as needed.

Preparing for the site visit was straightforward and the team was pleased to have the agenda and requests for additional documentation in advance. One recommendation is that the LHDs have more latitude in selecting who from their department will be interviewed rather than having PHAB make the determination based on title or role in the department. Hennepin's experience was that the subject expert, and the one that prepared the documentation for the self assessment, did not always have the role or the title requested for in the site visit interview.

Finally, the team found the support provided through PHAB and NACCHO invaluable at all stages of the beta test project.

#### APPENDICES

[Appendix 1 - Story Board](#)

[Additional Appendices:](#)

Appendix 2 - Fish Bone Diagram

Appendix 3 - Clinic Services Access Policy

Appendix 4 - Data Chart