

# PDCA STORYBOARD



DIVISION/OFFICE:	Disease Prevention
SECTION:	Immunization
MEMBERS:	Diane Ferriss, Arlene Ryndak, Claire Dobbins, Annette Julien, Cheryl Kane, Jeanette Zawacki, Judy Zwart, Kathy Swedberg, Nancy Murphy, Rita Bednarz, Carol Moshier, Cindy Fosen, Kristy Brown, Teresa Reyna, Mary Schleicher, Elena Lopez
PROJECT TITLE:	Immunization Competencies
DATES OF PROJECT:	12/10 – 7/11

**PLAN**  
Identify an opportunity and Plan for Improvement

### 1. Getting Started

Kane County Health Department childhood immunization program has changed over the last several years as the KCHD and community providers have worked together to provide childhood immunizations.

Historically, the department conducted clinics at the APHC, EPHC and other sites throughout the county. Six to eight clinics were conducted per month staffed by a total of 5 expert nurses and 3 support staff. Medicaid-eligible children were seen at that time.

As community providers immunized children more, the KCHD began immunizing those children that had no provider or payer source. The aim was to fill the gaps in the health care delivery system.

Also at that same time, the KCHD was beginning to move toward a public health nurse (PHN) workforce that would be multi-disciplined and be 100% competent in childhood immunizations.

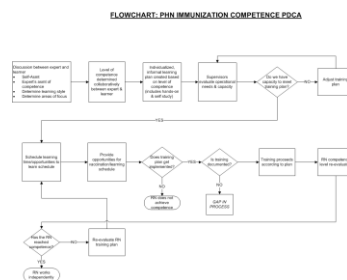
A PDCA process was started to help determine the best way to reach the goal of 100% of PHNs in the KCHD competent in childhood immunization.

### 2. Assemble the Team

A team consisting 11 PHNs (two of whom are experts), two managers, and one support staff was established. The AIM statement is: By 7/1/11 the rate of KCHD's PHNs that have reached competency as described in the "Clinical Competencies for Public Health Nurses" will increase from baseline to 100%. It was decided that the Benner Stages of Clinical Competence would be used to assess skill level. The team used Quality Improvement tools to help better understand the problem and potential solutions. The team used flow charting, fishbone analysis and force field analysis.

### 3. Examine the Current Approach

The team developed a flow chart to show how a PHN achieves competency.



The model being used is one on one mentoring with an expert PHN in childhood immunizations during regularly assigned clinic times.

Starting in April, 2010 some PHNs (others focused on a different discipline) were given the opportunity to designate 20% of their time to learning the

immunization schedule and to practice vaccine administration skills. Clinics were conducted at EPHC and APHC and staffed by a total of seven PHNs, three expert PHNs and two support staff. The expert nurses were identified to mentor their colleagues who had not yet reached competency. Clinics were four days per week in APHC and one a month in EPHC, which resulted in an average of three clients per clinic. Each expert had an assigned clinic day with an assigned PHN to mentor. The expert set up clinic and the PHN screened the clients the day of the clinic either right before or when the client was present. The expert reviewed the PHN's screening analysis and administration technique. In between clients, the PHN spent time on self study. This continued for 9 months, after which only 25% of PHN workforce was competent (including the experts) and only 54% of the non-expert PHN workforce was being mentored.

With the goal of 100% of the PHN workforce being competent in childhood immunizations, it became clear that the method was producing slow results. There was a lack of clients at any one clinic; PHNs only had opportunity to learn from one expert, and reassessment of PHN skill level and adjustments of training plans were lacking.

#### 4. Identify Potential Solutions

In December 2010 the PHN workforce met to discuss potential solutions. The aim was to enrich the learning experience so that all PHNs would meet the goal of competency by 7/1/11. It was collectively decided that a POD (point of distribution) model similar to one that the KCHD used during the H1N1 mass vaccination clinics would be implemented.

#### 5. Develop an Improvement Theory

Theory: Learning would be enriched and PHNs would become competent at a faster rate by:

- 1) Creating a group of people who are at different competency stages to learn from each other;
- 2) Creating clinics with full appointment slots;
- 3) Creating time to contemplate the rationale behind immunization decisions and individual nursing judgments;
- 4) Creating time for self assessments and reassessment of PHN skill level so that training plans can be adjusted;
- 5) Creating more opportunities to experience immunization clinics outside of KCHD.

### DO

Test the Theory for Improvement

#### 6. Test the Theory

In January 2011 a POD model was implemented. Three pods of three PHNs with an expert were present at each clinic. The Benner Stages of Clinical Competence was still used. Each pod had a novice, an advanced beginner and an expert. There was two half day clinics per month, one in the morning and one in the afternoon. This allowed each clinic to have a fuller appointment schedule. Prescreening was done the day before the clinic, so that each pod was able to work through

the screening rationale together without the time pressure of screening while the client was waiting.

Within each pod the PHN was initially assigned a task, either to screen the client again to assure accuracy or to vaccinate. After two months, with the guidance of the expert and clinical supervisor, the PHN skill levels were reassessed. Adjustments were then made to what tasks the PHN would perform during the clinic. After three months, each PHN did a self assessment and discussed their progress and further training needs with the expert and clinical supervisor.

As PHNs accomplished competency they were no longer required to attend the clinics, unless they felt they needed to, in order to give more opportunity to those who hadn't reached competency.

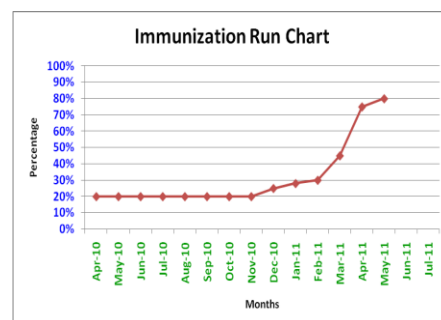
In addition, opportunities were given to PHNs to work in immunization clinics with partner organizations to gain more experience and perhaps a different perspective.

### CHECK

Use Data to Study Results of the Test

#### 7. Check the Results

After five months using the pod model, 80% of the PHN workforce (including experts) was at minimum competent in immunizations. This was a 55% increase from the previous one on one model that was used.



### ACT

Standardize the Improvement and Establish Future Plans

#### 8. Standardize the Improvement or Develop New Theory

As a result of the evaluation, it was determined that the pod model was an effective way to bring nurses to the competency level on the Benner Stages of Clinical Competence, given that 80% of the nurse workforce reached competency. However, we did not meet the AIM Statement (100%). After further analysis, it was determined that two nurses needed more intense, individualized training and support, in addition to continuing to participate in the pod model. These nurses were allotted two hours each work day to concentrate on learning the childhood immunization schedule. These nurses were deemed competent in September 2011. This model will be adopted for training of new nurses.

#### 9. Establish Future Plans

Since competency has been reached for the entire nursing staff, each nurse will be working independently. Expert support will still be available when needed. Each nurse will self-regulate their maintenance of competency by participating in clinics at least every two months and keep abreast of changes in the immunization schedule, and keep abreast of CDC recommendations and changes.

Several lessons were learned. First, the pod model provided structure and support to nurses learning a new skill. Second, the pod model provided a sense of camaraderie amongst nurses. Third, the PDCA model provided the vision needed to reach a goal that initially seemed overwhelming.