

# **PDCA** storyboard

DIVISION/OFFICE:	Division of Disease Prevention
SECTION:	Immunization Program and Epidemiology
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PROJECT TITLE:	Immunization Stats and Vaccine Accountability
DATES OF PROJECT:	February 15-June 1, 2011

PLAN Identify an opportunity and Plan for Improvement

#### 1. Getting Started

Immunization clinic and Epi group were experiencing discrepancies by using multiple systems in immunization stats and vaccine accountability data at the end of the month thus providing an opportunity for improvement by utilizing state electronic immunization system Cornerstone. The team was trying to:

- Eliminate the duplication of data collection.
- Decrease errors in data entry.
- Better utilize existing immunization reports

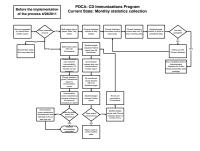
#### 2. Assemble the Team

Once the topic of data discrepancy was determined by epidemiologists and was discussed with the Immunization program nursing supervisor, the team expanded to include the nurse from immunization that run monthly vaccine accountability data, the data collector person from Immunization and nurse from Communicable disease program.

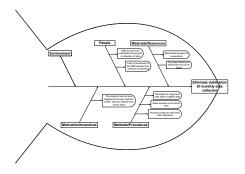
**Initial AIM Statement**: By June 1, 2011, the Immunization Program will eliminate 100% of duplication of data collection.

#### 3. Examine the Current Approach

The QI (Quality Improvement) team developed a flow chart of the Immunization stats and vaccine accountability process.



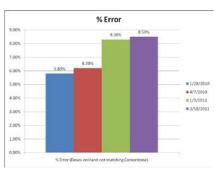
The QI team was aware that Cornerstone/Foxfire can provide an automated report on immunization /vaccine accountability data and thus elimination need for tally sheet. Possible reasons of discrepancy were outlined in the fishbone diagram.



A) It was determined that baseline data from the previous years was needed. This data was collected from the tally sheet where the immunization data were charted.

B) Once the root causes were determined, the team expanded to include the vaccination accountability report. There was a vaccine accountability discrepancy between Cornerstone/Foxfire canned report and vaccine on hand data.

Vaccine accountability errors before the implementation of the process



The QI (Quality Improvement) team determined to revise initial Aim Statement.

**Revised Aim Statement:** By July 1, 2011, accuracy of vaccine accountability in Immunization program will increase from 92% to 98 %.

#### 4. Identify Potential Solutions

Early in the QI process, the team met regularly with face-to-face meetings and did brainstorming to identify potential solutions. All data collected was reviewed.

- Count vaccine before and after each clinic.
- Cross-check Cornerstone report after each clinic's data entry is complete.
- Create a process for tracking walk-ins.
- Evaluate the process for vaccine accountability.
- Compare hard-copy charts against Cornerstone.
- Retrain staff-screeners, nurses, data entry to assure the data entered.
- Cornerstone is complete and accurate.

• Compare inventory against Cornerstone and Fox Fire reports.

#### 5. Develop an Improvement Theory

If the immunization data are collected accurately from the screeners/ nurses and entered correctly into Cornerstone, the number of errors for immunization stats will be decreased and vaccine accountability will be increased tremendously.

# **DO** Test the Theory for Improvement

## 6. Test the Theory

The immunization nurse and epidemiologist worked together to:

- Compare immunization stats data with Cornerstone/Foxfire.
- Count vaccine from new spreadsheet created before and after each clinic and to compare Cornerstone/Foxfire report to assess the effectiveness of the process.

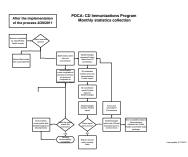
CHECK Use Data to Study Results of the Test

## 7. Check the Results

It was determined that there is an issues with the Cornerstone canned report. The issue was reported to the IT department of Cornerstone.

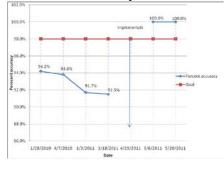
A) The comparison data of manually tally sheet and Cornerstone/Foxfire report showed that duplication of data collection can be eliminated in this process. The improvement results:

- Elimination of manual stats collection data
- Utilizing Cornerstone more efficiently.
- No more double checking.
- Less time spent completing the stats.
- Less frustration
- Fewer people involved in collection of stats.



B) The pre and post clinic data showed that vaccine accountability on hands data did match 100% with the Foxfire report after implementation of the new process on 4/29/2011.

Percent accuracy from comparison on hands vaccine data with Cornerstone/Foxfire report



ACT Standardize the Improvement and Establish Future Plans

## 8. Standardize the Improvement or Develop New Theory

The EPI/ Immunization group believes that Cornerstone/ Foxfire report will be an improvement over the paper forms, for immunization stats data and vaccine accountability. The epidemiologist and immunization nurse will have access to Cornerstone/Foxfire. The data collection process maps have been incorporated into the EPI/Immunization stats/Vaccine accountability procedures.

## 9. Establish Future Plans

The group will celebrate their accomplishment and continue to improve the immunization system by moving toward to ICare in the future.