



Quality  
Insights

Renal Network 4



# Increase Hepatitis B & Pneumococcal Pneumonia Vaccination Rates: A 2017 Quality Improvement Activity (QIA)

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# Evaluation Survey

- CMS would like a summary of the feedback provided on the content and value of this presentation. Please take a minute at the end of the presentation to complete the evaluation so that Network 4 may better serve your needs when conducting this QIA
- THANK YOU!

# Background

- CMS ESRD Contract - Quality Insights Renal Network 4 (QIRN4), under the direction of the Centers for Medicare & Medicaid Services (CMS), is to assist dialysis and transplant facilities in improving the quality of care they provide to End Stage Renal Disease (ESRD) patients
- This is a multi-year QIA geared toward meeting Aim 1 of CMS's Triple Aim: Aim 1: Better Care for the Individual through Patient and Family Centered Care

# National Vaccination Statistics

- It is estimated between 50,000 and 70,000 United States adults die each year because of diseases that could be prevented by vaccinations.
- In 2012, there were approximately 32,000 cases of invasive pneumococcal disease and about 3,000 of those resulted in death.

Source:

Gannon M, Qaseem A, Snooks Q, Snow V. Improving adult immunization practices using a team approach in the primary care setting. 2012.

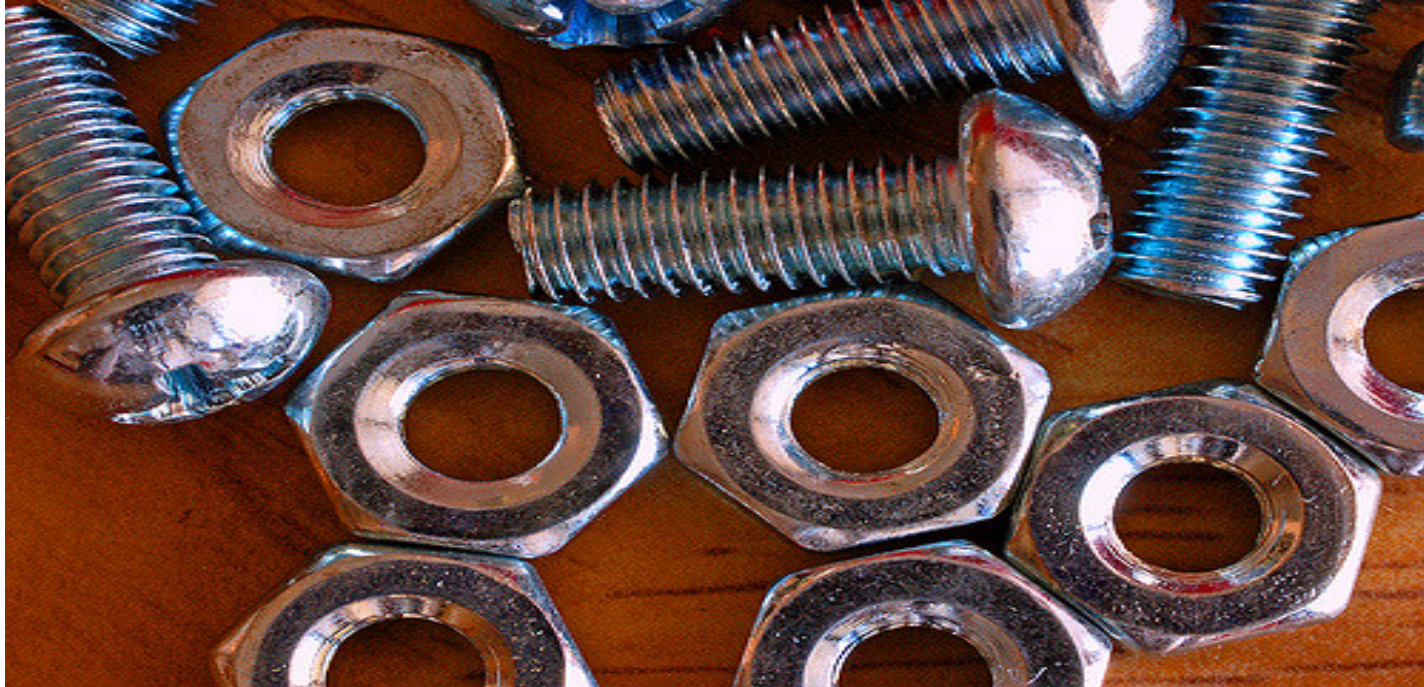
Centers for Disease Control and Prevention (CDC). A series on standards for adult immunization practice.

# System Barriers to Patient Vaccination

- **Lack of** health-care provider and patient **knowledge about the need for vaccinating both healthy and high-risk adults**
- Some providers are **not offering vaccination or offering only a subset of vaccines** recommended for adults, and many adult patients are unaware of their recommended vaccines,
- **Patients may see many different providers**, including specialists who may not be vaccine providers. The presence of multiple providers of health services may complicate coordination of care and reduce the likelihood that patients' vaccination needs are routinely assessed and needed vaccines are offered.

Public Health Reports. Recommendations from the National Vaccine Advisory Committee: Standards for adult immunization practice. 2014. <http://www.publichealthreports.org/issueopen.cfm?articleID=3145>. Accessed January 12, 2016.

# Nuts and Bolts of the QIA





# Facility



- Each facility must **increase both** the hepatitis B and pneumococcal pneumonia **vaccination rates by at least 5%** over the facility baseline rate by the end of September 2017
- The Network will provide facilities with their baseline rates. Baseline rates are drawn from September 2016 CROWNWeb data.
- In order to ‘graduate’ from this project, you must achieve a 60% vaccination rate for both vaccines. Remember – this is a multi-year QIA.

# QIA Metrics for HBV Vaccine

- Denominator

- Eligible patients: Entire patient census

- Numerator

- Patient who have completed the full series of 3 hepatitis B vaccines in 2017 **OR**
- Patients who have documentation of surface antibodies of = or > 10 mIU/ml
- Patients who have a documented medical reason for not receiving the vaccine (may be in numerator or removed from the denominator – under discussion at CMS)

***IMPORTANT: the numerator criteria above MUST be documented in CROWNWeb or the patient is NOT considered vaccinated***



# QIA Metrics for Pneumococcal Pneumonia Vaccine

- Denominator
  - Eligible patients: Entire patient census
- Numerator
  - Number of patients who received PPSV23 within the last five years (as far back as 2012) and/or a single dose of PCV13 ever
- Exclusions
  - NONE

***IMPORTANT:*** If the vaccine is NOT documented in CROWNWeb, then the patient is considered NOT vaccinated!

# Focus Facilities

- Selection criteria:
  - Lowest hepatitis B & pneumococcal pneumonia vaccination rates in the Network (PA & DE)
  - 2016 focus facilities not achieving at least a 60% vaccination rate for each vaccine (n=18)
- Number of facilities selected: 25
- Aggregated baseline vaccination rates :
  - HBV rate: 48.54%
  - Pneumococcal pneumonia: 47.92%

# Tools

- HBV Vaccine Monthly PDSA Tools
- Pneumococcal Pneumonia Vaccine Monthly PDSA Tools
- Facility Vaccination Reports
- Patient Level Reports

# Due Dates – Yikes! When is everything Due?

- Completed HBV and Pneumococcal Pneumonia tools are due to Network, EVERY MONTH by the 5<sup>th</sup> working day of the following month.

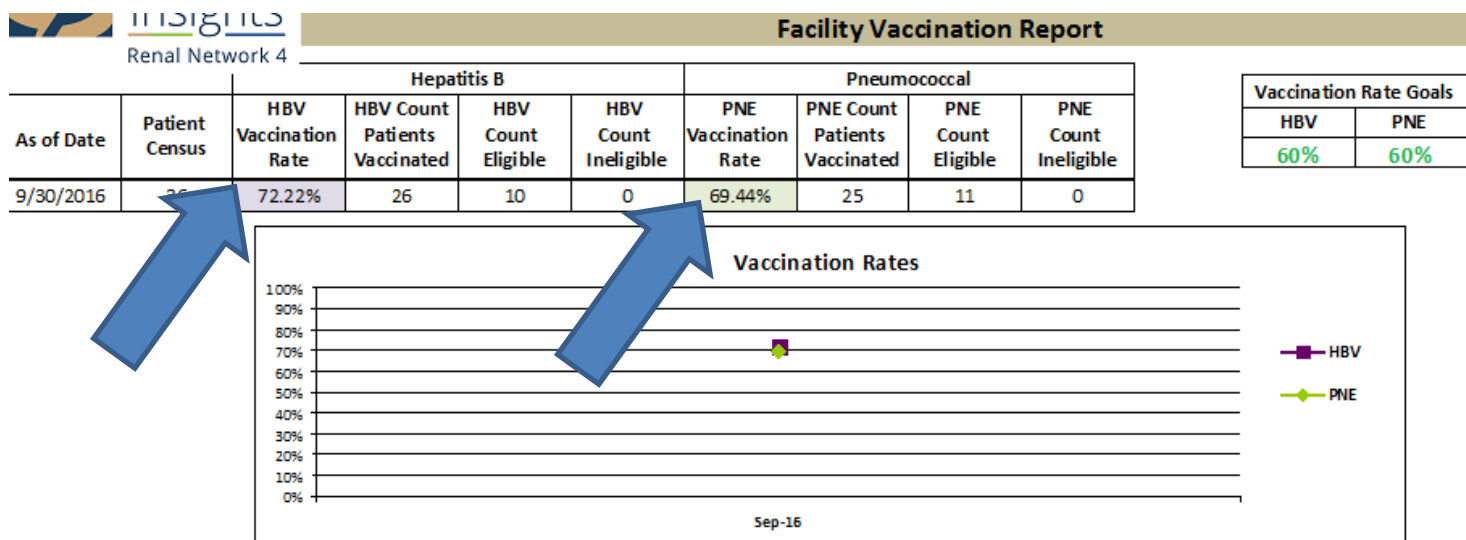
i.e.- MARCH tools are due APRIL 7th



Note – paper tools are to be emailed to [jshrift@NW4.esrd.net](mailto:jshrift@NW4.esrd.net)

# Facility Vaccination Reports

- Shows your baseline rates: September data from CROWNWeb
- Updated reports will be sent periodically



# Interventions – The Details



# 5 Steps for Achieving Facility Vaccination Goals

- **Step 1:** Convene a Vaccine Improvement Team (VIT) in each facility
- **Step 2 :** Identify the main barrier preventing improvement in the rate for EACH vaccine using a Root Cause Analysis (RCA) approach
- **Step 3:** Familiarize yourself with The Standards of Adult Immunization Practices\*
- **Step 4:** Complete a Plan-Do-Study-Act Cycle every month until the barrier no longer exists
- **Step 5:** Repeat Steps 2 through 4 for each new barrier




# Step 1 – Convene a Vaccine Improvement Team (VIT)

- Each facility will form a multidisciplinary VIT, which includes the patient voice, to review your Facility Vaccination [slide 15] and Patient Level Report [slide 18]
  - You may select a single patient to be on the team throughout the project OR
  - You may speak with different patients throughout the project regarding the PLANs you intend to implement

# Patient Level Vaccine Reports

- These reports reflect the information in CROWNWeb and contain the data by which your facility vaccination rates are determined.
- Baseline reports will be faxed to you because they will have patient names on them so you can track each patients status.
- Updated reports will be sent periodically

# Example of Patient Level Report



Renal Network 4

Patient Specific Vaccination Report

		Hepatitis B						Status			Pneumococcal								Status		
UPI	Patient Initials	HBV 1st in Series	HBV 2nd in Series	HBV 3rd in Series	HBV Exclusion Reason	HBV Surface Ab. Convert	Vac	Elig	Inel	PPSV23 Docu	PPSV23 Year	PPSV23 Where	Reason PPSV23 Not Docum	PCV13 Docum	PCV13 Year	PCV13 Where	Reason PCV13 Not Docum	Vac	Elig	Inel	
2104862022						9		X		Yes	2016	Onsite		Yes	2016	Onsite		X			
2104707594								X		Yes	2013	Offsite		Yes	2013	Offsite		X			
2104806518		02/11/ 2015	03/11/ 2015	2015- 11-27			X			NULL				NULL					X		
2104829303						150	X			Yes	2016	Onsite		Yes	2014	Offsite		X			
400320720						40	X			Yes	2013	Offsite		NULL				X			
2104588044		07/02/	08/08/	2013-	Personal	9		X		NULL				NULL					X		

# Step 2 – Perform a Root Cause Analysis (RCA)

- The VIT will identify the main barrier preventing improvement in the rate for EACH vaccine.
  - Perform a Root Cause Analysis (RCA) for hepatitis B vaccine AND
  - Perform an RCA for the pneumococcal pneumonia vaccine
- Six Sigma RCA Tool - 5 Whys
  - One of the simplest tools; easy to complete without statistical analysis.
  - By repeatedly asking the question “Why” (five is a good rule of thumb), you can peel away the layers of symptoms which can lead to the root cause of a problem
  - **You Tube Video:** Drilling down on a Problem using the “5 Why” method – 2:02 Minutes <https://www.youtube.com/watch?v=B-M3YIA2KDg>

# Network Root Cause Analysis

- QIRN4 2017 Vaccine Workgroup RCA identified 5 key areas where barriers occur:
  - Patients
  - Providers
  - Financial
  - Policy/Procedures
  - Technologies

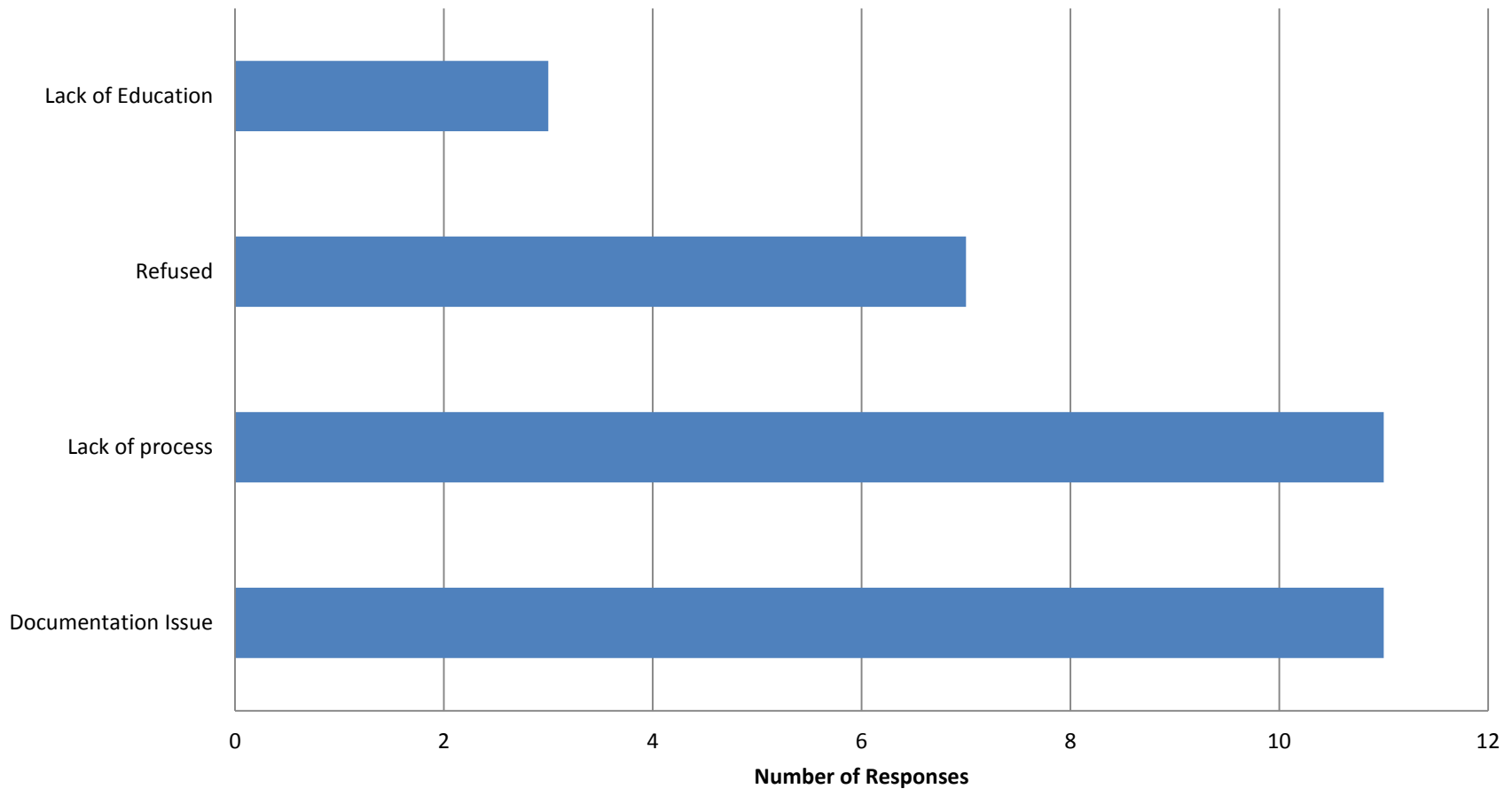


# Most Common 2016 QIA Barriers



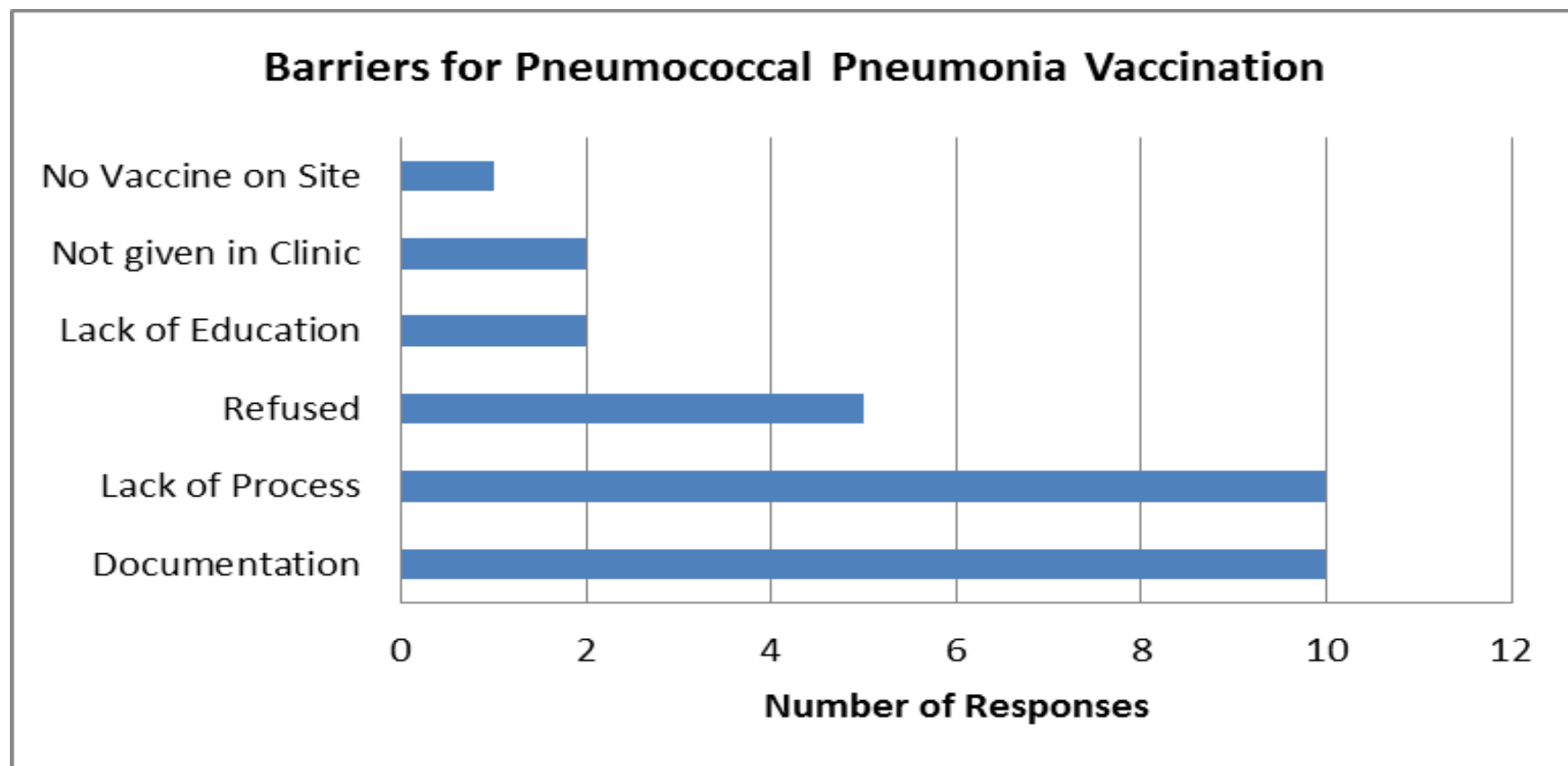
# HBV Barriers Identified by 2016 Focus Facilities

Barriers for Hepatitis B Vaccination





# PPV Barriers Identified by 2016 Focus Facilities



# Step 3 – Develop a Plan using The Standards of Adult Immunization Practices\*

- Familiarize yourself with The Standards of Adult Immunization; they are the foundation of each PLAN you develop
- Your monthly PLAN/Interventions must address at least one of the four immunization practices\*:  
Assess, Recommend, Administer, Document

\* Recommendations from the National Vaccine Advisory Committee: Standards for Adult Immunization Practice doi: 10.1177/003335491412900203 Public Health Rep March-April 2014 vol. 129 no. 2 115-123. Downloaded 11/22/16

# Process to Improve Vaccination Rates

## The Standards of Adult Immunization Practices

Steps for healthcare professionals to take to ensure that patients get the vaccines they need.

- **ASSESS** immunization status of all patients at every clinical encounter
- Strongly **RECOMMEND** vaccines that patients need
- **ADMINISTER** needed vaccines or **REFER** patients to a vaccinating provider
- **DOCUMENT** vaccines received by patients

# Assess

- ASSESS immunization status of all patients at every treatment *[more appropriate for physician office practices]*
- Implement protocols to ensure that patients' vaccine needs are routinely reviewed and patients get reminders about vaccines they need *[more appropriate for dialysis facilities]*

# Recommend

- **Strongly** RECOMMEND vaccines for patients
  - **One of the most important predictors of vaccination receipt** among adults is a health-care provider's recommendation and offer of vaccine during the same visit.
  - **Address patient questions** and concerns in clear and understanding language
  - **Explain the benefits** of getting vaccinated and potential costs of getting the diseases they protect against
  - **Highlight positive experiences** with vaccination to reinforce the benefits and strengthen confidence in vaccination
  - Implement an **immunization campaign**

# Administer & Document



- ADMINISTER needed vaccines or REFER your patients to a vaccination provider
  - Make vaccination services as convenient as possible (i.e. lobby days)
  - PCV13 and PPSV23 are both acceptable vaccines
  - Vaccine timing resources – see meeting materials/resources zipfile
    - CDC adult combined schedule with info on HBV and Pneumococcal Pneumonia
    - CDC guidelines table for administration of PCV13 and PPSV23 on page 11
- DOCUMENT vaccines received by the patients.
  - This helps ensure patients get the vaccines they need and also helps prevent unnecessary vaccination.
  - Document vaccination in CROWNWeb as soon as patients are vaccinated AND confirmed that it's documented at the end of every month
  - If the facility referred the patient to an outside provider, then follow up with the patient to confirm they received the vaccine(s) and document in CROWNWeb

# Step 4 –Institute for Healthcare Improvement (IHI) Model for Improvement: Plan-Do-Study-Act Cycle (PDSA)\*

- This is an iterative 4-step quality improvement process (Deming Circle)
  - Plan: develop a plan to improve a process
  - Do: implement the plan
  - Study: identify barriers and successes of the plan
  - Act: adopt, adapt or abandon
- Use the PDSA cycle to address one barrier at a time

\*Institute for Healthcare Improvement (IHI) Model for Improvement

<http://www.ihi.org/resources/Pages/HowtoImprove/default.aspx>



# \*PDSA Cycle (Continued)

- Begin the Plan-Do-Study-Act Cycle: each monthly PLAN must include at least 1 of the “The Standards”.
  - Repeat Step 4 until the barrier no longer exists and the new process has been embedded/hardwired - preferably into an existing process
  - **If your facility is currently NOT following your organization’s policy/procedure, your first PLAN should be to follow this policy**

\*Institute for Healthcare Improvement. Science of Improvement: How to Improve.IHI.org.

<http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementHowtoImprove.aspx> Accessed December 9, 2016

# HBV & Pneumococcal Pneumonia Vaccine

## Monthly PDSA Tools

- These are 2 separate tools
- These tools are for **cumulative data collection** – use the same form throughout the project

*Note – During this project the data collection tools may convert from paper to on-line*

# Example of PDSA Cycle using the HBV Monthly Data Collection Tool

## Quality Insights Renal Network 4 – Increase Vaccination Rate for HBV PDSA Tool

**Desired outcome:** Achieve at least a 5% increase over the baseline rate for Hepatitis B in the vaccination rate for all eligible patients **BASELINE RATE:** [Click here to enter text.](#) **GOAL:** [Click here to enter text.](#)

**Notes:** This form is meant to collect cumulative data. You will be ADDING information each month to this form and emailing it to [jshriff@nw4.esrd.net](mailto:jshriff@nw4.esrd.net) by the 5<sup>th</sup> working day of the month

Please provide any feedback on the use of this form or the processes utilized in this QIA: [Click here to enter text.](#)

<b>CCN (begins with 39 or 08):</b> <a href="#">Click here to enter text.</a> <b>Facility Name:</b> <a href="#">Click here to enter text.</a>		<b>Vaccine Improvement Team Members (name &amp; role):</b> <a href="#">Click here to enter text.</a>			<b>Contact Name:</b> <a href="#">Click here to enter text.</a> <b>Phone #:</b> <a href="#">Click here to enter text.</a>	
		<b>PLAN</b>	<b>DO</b>	<b>STUDY</b>		<b>ACT</b>
<small>Each cause uses one main barrier identified by your Vaccination Improvement Team (VIT) in the rows below. Note: please use one row per barrier.</small> <small>Click here to enter text.</small>	<small>Plan your interventions based on the root causes in the previous column. For each identified cause, describe the action step(s) your facility will use to achieve improvement.</small> <b>Feb -</b> <a href="#">Click here to enter text.</a> <b>Mar -</b> <a href="#">Click here to enter text.</a> <b>Apr -</b> <a href="#">Click here to enter text.</a> <b>May -</b> <a href="#">Click here to enter text.</a>	<small>Which step(s) of the standards or best practices apply to? ASSESS, RECOMMEND, ADMINISTER, OR DOCUMENT? May click on multiple boxes</small> <b>Feb -</b> <input type="checkbox"/> Assess <input type="checkbox"/> Recommend <input type="checkbox"/> Administer <input type="checkbox"/> Document <b>Mar -</b> <input type="checkbox"/> Assess <input type="checkbox"/> Recommend <input type="checkbox"/> Administer <input type="checkbox"/> Document <b>Apr -</b> <input type="checkbox"/> Assess <input type="checkbox"/> Recommend <input type="checkbox"/> Administer <input type="checkbox"/> Document <b>May -</b> <input type="checkbox"/> Assess <input type="checkbox"/> Recommend <input type="checkbox"/> Administer <input type="checkbox"/> Document	<small>Implement the plan and identify the RESPONSIBLE PERSON: List who (what role(s)) will be responsible enacting the PLAN</small> 	<small>Was there any improvement from the baseline process? Click on bar</small> 	<small>Were there any inefficiencies or results? Click on bar</small> 	<small>Were there any unexpected results? Click on bar</small> 
		<b>RESEARCH</b>				
			<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Adapt - Update current PLAN for next month <input type="checkbox"/> Abandon - Develop new PLAN for next month
		<b>APRIL</b>				
			<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Adapt - Update current PLAN for next month <input type="checkbox"/> Abandon - Develop new PLAN for next month
		<b>MAY</b>				
			<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Adapt - Update current PLAN for next month <input type="checkbox"/> Abandon - Develop new PLAN for next month
		<b>JUNE</b>				
			<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Yes <input type="checkbox"/> No <small>If yes, specify: <a href="#">Click here to enter text.</a></small>	<input type="checkbox"/> Adapt - Update current PLAN for next month <input type="checkbox"/> Abandon - Develop new PLAN for next month

# Step 5 – Repeat Steps 2 through 5

- Once a barrier has been fully addressed, a new barrier will be selected and Steps 2 through 5 are repeated

# DON'T FORGET TO COMPLETE THE EVALUATION SURVEY



# Contact Information

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