

Examples of Quality Improvement Projects in Adult Immunization

The following activities are provided to prompt your thinking about what works best for your practice. When designing a project, consider the following:

1. Clinical Setting:
 - What strategy for improvement is appropriate for your clinical setting? For example, is it feasible to implement a reminder-recall system or report to an immunization registry?
 - What is your timeline for the project? How much time will you allocate to carrying out this project?
2. Current Performance:
 - Are there easily identifiable areas ripe for improvement? For example, does your institution have trained volunteers who can educate patients on vaccination?
 - What aspect of performance do you want to focus on? Do you want to increase patient knowledge of vaccines or increase your documentation of vaccination or increase rates for specific vaccines?
3. Patient Population:
 - What are the significant features of your patient population? Consider age, gender, or prevalence of chronic conditions.
 - What intervention might have the most impact for your patients?
4. Institutional Commitment:
 - Who are the stakeholders involved in this project?
 - Is there someone who will champion the effort?

Regardless of which activity you choose to undertake, you should implement a **Plan-Do-Study-Act** cycle in order to systematically assess your performance and track improvements in practice.

PLAN	DO
Planning and preparing for change is an important first step to implementing change. Identify a <i>gap in care</i> and establish an <i>aim statement</i> defining the goals for improving performance by a certain percentage over a defined time period.	Carry out the plan over the defined time period. Continue the process long enough to determine the impact of the implemented plan.
STUDY	ACT
Monitor progress over time. Set aside time to analyze the data and study the results. Compare findings to the original aim statement.	Determine if improvement was achieved. Based on findings, either adopt the change, modify it, or abandon it. Continue monitoring progress with regular PDSA cycling.

Example Projects

For all clinical settings:

1. For each clinical encounter, document that influenza vaccination review has occurred with detailed documentation (patient received vaccine, vaccine is contraindicated, patient declined, or patient was not offered vaccine).
2. Assess patient's vaccination status at intake using a checklist:
<http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/patient-intake-form.pdf>
3. Conduct immunization review of healthcare personnel to identify Hepatitis B, MMR and/or Varicella status.

For the ambulatory setting:

1. Generate list of diabetic patients, 19 to 59 years of age, and their Hepatitis B vaccination status. Flag patients who have not been vaccinated to discuss at next visit.
2. Distribute information on Tdap vaccination to all pregnant women and discuss benefits of vaccinating against pertussis.
3. Identify patients who started HPV series and send reminder notification (phone call, email, letter) to return for next dose.

For the hospital setting:

1. Use Medicare's Hospital Compare data to compare influenza and pneumococcal vaccination rates to individual providers for performance feedback.
2. For patients with chronic liver disease, distribute patient education materials for Hepatitis B.
3. Implement standing order protocol to administer influenza vaccination to appropriate patients prior to discharge.

Extended Examples of Quality Improvement Projects in Adult Immunization

These extended examples will highlight the Residency Clinic and the Private Practice as vaccination settings. These examples are provided to illustrate the practice improvement process, and that actual efforts devised by physicians and their team may differ based upon individual needs. Regardless of the setting, these examples can be used as springboards to guide the planning of any immunization quality improvement project.

Residency is an ideal time to learn quality improvement skills and apply them to situations in the “real world.” Residency establishes the learning processes that physicians will continue to apply over the course of their careers. Residency provides an opportunity to develop good habits when residents are most open to learning new concepts and working in teams—both key to practice improvement. The Accreditation Council for Graduate Medical Education requires internal medicine residencies to provide training in a continuity clinic setting.

Basic Ideas for Getting Started and Applying the Plan-Do-Study-Act Cycle

When getting started, it is always best to start with basics. Here are some key elements to focus on first.

1) Form a Team

- *For the residency setting:*
 - Designate a physician champion to provide leadership and direction, such as a faculty physician who oversees residents in the outpatient clinic. Get administrative buy-in from the hospital leadership. Include a resident from each clinic day who is enthusiastic and influential among his or her peers as well as a member from the nursing, scheduling, and medical records staff.
- *For a practice setting:*
 - Designate a non-physician champion to provide leadership and direction on a day-to-day basis. Because it can be difficult for team members to attend scheduled meetings, consider communicating through weekly e-mail updates or quick “huddles” on a regular basis.

2) Evaluate Current Performance

Perform an initial chart review to provide a baseline snapshot of current performance. Use the data from a baseline assessment to identify an area needing improvement to tackle first.

- *Paper Charts Example:*
 - If the baseline chart audit took weeks longer than expected because of poorly organized charts and a lack of consistent documentation of vaccinations by providers, start with a chart organization tool or a new immunization worksheet that will organize the patient’s vaccination history at a glance.
 - The first PDSA cycle may be to make sure that this sheet is placed in every chart, is updated when the charts are pulled and prepped for the day, and then is updated again by everyone in the practice who orders or gives vaccines.
- *EHR Example:*
 - Ensure that all staff are aware of the correct fields to use for documentation of vaccination status. If a flow sheet for vaccines is not evident, contact the IT department or the EHR vendor for additional support. Many EHRs have the

ability to run reports. These “queries” of the system can be used to gain awareness of performance during the PDSA interval.

4) Set the Aim

Set a well-defined goal and a specific time-frame.

- *For any setting:*
 - To attain an influenza vaccination rate of at least 80% in patients with asthma within the next year.

4) Plan the PDSA

Pick one idea that seems straightforward and break it down into smaller steps.

For the practice setting:

PLAN	DO
Provide influenza vaccine information statement (VIS) to 100% of patients before receiving the vaccine.	The medical assistant (MA) will provide VIS to all Dr. Jones’ patients who agree to receive the vaccine on Tuesday. The MA will document on the chart that the VIS was given.
STUDY	ACT
Office manager will sample 10 charts (determined by billing codes), compute the percentage of patients provided with a VIS, and display the data on a run chart in the break room.	Implement or adapt as needed.

For the residency setting:

PLAN	DO
Reduce patient refusals for influenza by 25% in six months	The patient care technician moving the patient to the exam room will document in the patient’s medical record when a patient refuses the influenza vaccine and, if possible, the reason for refusal. This documentation will promote discussion between the patient and the resident.
STUDY	ACT
At the end of the day, the patient care technician will review records of the noted patients and determine receipt of vaccine. A simple table is kept with “Given,” “Not Given,” and “Reason Refused” for all relevant charts. Display in the resident conference room a visual run chart of the percentage of vaccines given over the course of each week. If the number of refusals is low (i.e., less than three per week), the data can be displayed on a run chart every two weeks, or even every month.	Revise PDSA or move on to another adult vaccine.

5) Maintain Momentum

Once the practice or residency clinic finishes the first PDSA, take what is learned and plan the next cycle. Do not be afraid to scrap ideas that did not work well. Show appreciation to the team and all involved parties. Administration's recognition of practice improvement can be a great motivational tool; this can be as simple as sending an e-mail to the department praising the quality improvement team.

- *For any setting:*
 - Using the VIS example in the Practice Setting above, if the practice is reporting only 60% success on the run charts, a "huddle" (as opposed to a formal sit-down meeting) with the MA may be in order to try to determine the barrier.
 - For example, if the MA reports that documenting the information onto the chart is proving cumbersome, a PDSA cycle concentrated on documentation would be a natural next step. Education on the federal requirements of VIS distribution may also be necessary.

The extended examples were modified from the *American College of Physicians Guide to Adult Immunization, 4th Edition: A Team-Based Manual*, pg. 18-19.