

Strategies for Improving Immunization Coverage Rates

Implement one or more of the evidence-based strategies below to improve immunization coverage rates in your practice. These recommendations are also designed to complement continuous quality improvement planning.

1. Assign an Immunization Champion for Your Practice

An immunization champion can serve as a steward and advocate of immunizations in your practice. This role can be filled by any clinical provider. Being the immunization champion should be written into the provider's job description with time devoted to perform their tasks. Practices should cross-train staff and appoint a different person to fill-in and complete these duties in case the immunization champion is unavailable. It is also suggested, in instances when the immunization champion is not a physician, that a physician provides oversight to the immunization champion.

2. Patient Reminder-Recall

Immunization reminder-recall systems are cost-effective methods to identify and notify families whose children are due soon for immunizations (reminder) or are already behind (recall). Reminder and recall systems are powerful ways to ensure optimal vaccination rates. Staff members first pull a list containing names and contact information of patients who are due or overdue for immunizations and then contact those patients to schedule a time to receive immunizations. The Louisiana Immunization Network (LINKS) and many electronic health record systems (EHRs) can generate such reports easily if immunization records and family contact information is updated at every visit. Building these practices into patient flow is key.

Methods to remind or recall patients include:

- **Phone calls by office staff**
Calls placed by office staff tend to be more effective than auto-dialer calls, but often cost more.
- **Auto-dialers**
Auto-dialers automatically dial phone numbers and either play a recorded message or connect the call to a live person. Such systems also can be used for appointment reminders.
- **Mail reminder cards or letters**
Your IIS or EHR may print these for you. Another approach is to have the family fill out the reminder card for the next visit (e.g., dose 2 of DTaP, IPV and Hib or dose 2 or 3 of HPV vaccine) when in your office.
- **Text messages**
Families opt-in for text messages so your office can text reminders to both parents and adolescents. While parents/guardians need to consent for the vaccine, it is useful to include adolescents in the discussion of their own care.
- **Patient Portals**
Many EHR systems come with a patient portal option. Practices can use this feature to send emails to patients or parents prompting them to check their patient portal, which will remind them of vaccinations that are due.

For more information, visit:

Centers for Disease Control and Prevention (CDC) www.cdc.gov/vaccines/recs/reminder-sys.htm or the American Academy of Pediatrics (AAP) https://www.aap.org/en-us/Documents/immunization_reminderrecall.pdf

The following is a list of some auto-dialer vendors. Please note that we cannot endorse or recommend specific products or brands. This is only meant to aid you in your selection.

Auto-dialer	Website
Call-em-all	https://www.call-em-all.com/
Call Fire	http://www.callfire.com
Televox/West	http://www.televox.com/appointment-reminders/
Voicent	http://www.voicent.com/autodialers.php

3. Hold Vaccine Clinics at Hours that are Convenient for Families

Holding vaccination clinics with special hours (evening or Saturday) at your practice allows for adolescents and their parents with busy schedules to access vaccination services. Offering special hours works especially well for administration on influenza vaccinations. While other recommended vaccines, such as Tdap, HPV, and meningococcal vaccinations should be given during the 11 or 12 year old well-child care visit, when parents will be given the opportunity to discuss the vaccines - shorter vaccination visits for subsequent doses of HPV and influenza vaccine may be more convenient.

4. Give Providers Feedback

Providers change their behavior (e.g., clinical practices) based on feedback that they are different from those of their peers. Consider running an immunization rate report through either EHR or LINKS; or perform a chart audit to determine the percentage of your patients that are up-to-date on immunizations. Benchmark this data against with coverage rates measured annually. You can also benchmark this data against the national and state (or city) data from the National Immunization Survey.

5. Include All Recommended Vaccinations at Every Visit

It is important to vaccinate whenever possible, because you don't know when a patient will be back in your office. Use sick-child and chronic care visits as a time to vaccinate. Be sure to check what vaccinations, if any, are due every time a patient is in the office. Always screen for contraindications. Most vaccines can be given even if the child has a mild illness. True contraindications and precautions are generally limited. CDC's most recent table of true contraindications and precautions can be found at: <https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html>

6. Provide a Strong Recommendation

Studies have shown that parents trust their pediatrician's guidance and it is important to give a strong recommendation for vaccination.^{1,2} Other studies show parents believe vaccines are important for child health and rate the importance of disease prevention higher than concerns about the number of injections involved. Providers may be underestimating the importance of some vaccines to parents, particularly influenza, HPV and other adolescent vaccines.³

Be sure to give a strong recommendation for all vaccines on the current schedule and not merely mention that they are available. Studies show a 'presumptive' or 'announcement' rather than 'participatory' approach is associated with significantly fewer vaccine refusals (26% vs. 83% resistance to vaccine recommendations, respectively).^{4,5}

Put the 'announcement' approach into practice by starting vaccine discussions with "Your child needs the following vaccines We'll be giving them at the end of the visit today".

In addition, some providers may shy away from discussing HPV vaccine. It is especially important to strongly recommend HPV vaccine, as parents may have more questions about it. Document refusals and reasons for refusal to guide future conversations.

If you don't already, consider these tools to help you make a strong recommendation for vaccines in your practice:

[Sample Vaccine Recommendations Project Charter](#)

[Sample Vaccine Recommendations PDSA Cycle 1](#)

[Sample Vaccine Recommendations PDSA Cycle 2](#)

1 Freed GL, Clark SJ, Butchart AT, Singer DC, and Davis MM. Sources and Perceived Credibility of Vaccine Safety. Information for Parents. Pediatrics 2011;127, 1, Suppl: 107-112.
http://pediatrics.aappublications.org/content/127/Supplement_1/S107.full.pdf+html

2 Gilkey MB, McRee AL. Provider Communication about HPV Vaccination: A Systematic Review. Vaccine Immunother. 2016;12(6):570-584.
https://www.researchgate.net/publication/292945794_Provider_Communication_about_HPV_Vaccination_A_Systematic_Review

3 Healy, CM, Montesinos DP, Middleman, AB. Parent and Provider Perspectives on Immunization: Are Providers Overestimating Parental Concerns? Vaccine 2014;32:570-584. <http://www.ncbi.nlm.nih.gov/pubmed/24315883>

4 Opel DJ, Heritage J, Taylor J, et al. The Architecture of Provider Parent Discussions at Health Supervision Visits. Pediatrics 2013;132:1-10. <http://pediatrics.aappublications.org/content/132/6/1037.full.pdf+html?sid=ba03bbea-cd5e-4d35-a365-f25e8dc6bf4f>

5 Brewer NT, Hall ME, MaloTL, Gilkey MB, Quinn B, Lathren C. Announcement Versus Conversation to Improve HPV Vaccination

Coverage: A Randomized Trial. Pediatrics 2017;139(1)
<http://pediatrics.aappublications.org/content/early/2016/12/01/peds.2016-1764.full>

7. Provider Prompts

Provider prompts usually consist of electronic prompts in Electronic Health Records (EHRs) or notes/flags in paper charts. Most EHR provider prompts are automatic pop-up alerts that notify the viewer that the patient is due/overdue for an immunization. Other EHR provider prompts may show up as a "to-do" task, even if the patient is not scheduled that day for an appointment. Many EHRs have provider prompts pre-installed that can be customized in the office. Notes/flags in paper charts must be added manually, after review of the chart for due vaccinations.

8. Standing Orders

Standing orders for immunizations include office policies, procedures, and orders to provide recommended immunizations to patients. For example, a standing order might be in place to instruct health care personnel (as allowed by the state) to give a specific vaccine to all patients for whom the vaccine is recommended based on the harmonized immunization schedule. Standing orders should include procedures for vaccinating eligible patients and contraindications. Consider making a change in your office with these practice-change tools:

[Sample Standing Orders Project Charter](#)

[Sample Standing Orders Plan-Do-Study-Act \(PDSA\) Cycle 1](#)

[Sample Standing Orders PDSA Cycle 2](#)

The Community Preventive Services Task Force (CPSTF) recommends standing orders for vaccinations. Go to the Community Guide website for more information:

<http://www.thecommunityguide.org/vaccines/standingorders.html>

Sample standing orders, screening forms and other guidance related to vaccine administration are available at: Immunization Action Coalition (IAC) <http://www.immunize.org/standing-orders>

8. Educate Staff

Provide staff training about evidence-based communication strategies known to improve vaccine confidence. Ensure they are comfortable addressing questions on immunizations and prompting for all recommended vaccinations at every visit. Designate someone to screen all immunization records before patient is seen. Training front desk/scheduling staff will also help to ensure that parents are well informed about their child's immunization needs. See the "More Resources for Your Practice" below for more information.

9. Educate Patients and Their Parents

Educate parents and patients about each recommended vaccine and the disease it prevents. Let parents know that vaccines are safe and effective, and that not vaccinating could put their children at risk for very serious diseases. Take every opportunity to educate parents and patients. Let them know at each visit what vaccines they can expect at their next health supervision appointment and provide handouts on these vaccines and diseases. This allows parents time to consider their questions, find answers, and discuss their most serious concerns with their pediatrician. For more resources on communicating with parents, visit:

CDC Provider Resources for Immunization Conversations with Parents

<http://www.cdc.gov/vaccines/hcp/patient-ed/conversations/index.html>

IAC Clear Answers and Smart Advice about Your Baby's Shots by Ari Brown M.D.

<http://www.immunize.org/catg.d/p2068.pdf>

CDC Parent's Guide to Immunizations

<http://www.cdc.gov/vaccines/pubs/parents-guide/default.htm>

Children's Hospital of Philadelphia (CHOP)

Many resources providers for vaccine communication about 'hot topics', vaccine safety FAQs, parent-specific material plus a mobile application for parents and providers

www.chop.edu/service/vaccine-education-center/home.html

- Frequently Asked Vaccine Safety Question (FAQs)

<http://www.chop.edu/service/vaccine-education-center/vaccine-safety/>

- Vaccines on the Go What you should know
<http://www.chop.edu/centers-programs/parents-pack/vaccines-go-what-you-should-know>

AAP Communication Aids

<https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/immunizations/Pages/Communication-Aids.aspx#Risk>

AAP Communication with Families Web page

<https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/immunizations/Pages/Communicating-with-Families.aspx>

10. Manage Patient Records

Accurate immunization records are essential components of forecasts, reminder-recall reports, and coverage reports. To ensure complete and accurate records practices need to ensure that: 1) all immunizations (administered and historical) are recorded and reported to LINKS; 2) patients who have left your practice are identified as inactive; 3) incorrect data is corrected; and 4) contact information (address, caregiver, etc.) is routinely updated.

11. Hold Team Huddles

Many practices have implemented daily clinical team meetings or "huddles" to improve the flow and quality of care they deliver. These meetings can focus on pre-visit planning, strategizing treatment plans for patients with special or complex needs, and addressing daily workflow and communication issues.¹ Incorporating immunization planning into these meetings can increase immunization rates.

1 Rodriguez HP1, Meredith LS, Hamilton AB, Yano EM, Rubenstein LV. "Huddle up!: The adoption and use of structured team communication for VA medical home implementation." Health Care Manage Rev. 2014 Jul 15