



<b>Body System: Infectious Disease</b>		
<b>Session Topic: Office Immunization Management</b>		
<b>Educational Format</b>		<b>Faculty Expertise Required</b>
<b>REQUIRED</b>	Interactive Lecture	Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience with audience response systems (ARS). Utilizing polling questions and engaging the learners in Q&A during the final 15 minutes of the session are required.
<b>OPTIONAL</b>	Problem-Based Learning (PBL)	Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. <u>Please describe your interest and plan for teaching a PBL on your proposal form.</u>
<b>Professional Practice Gap</b>	<b>Learning Objective(s) that will close the gap and meet the need</b>	<b>Outcome Being Measured</b>
<ul style="list-style-type: none"> <li>• Knowledge gaps in keeping up to date on current immunization schedules and alerts</li> <li>• Knowledge and performance gaps in utilizing standing orders, standardized protocols to screen for immunizations during patient encounters, and adopting a systematic approach to vaccine administration</li> <li>• Knowledge and performance gaps in using available patient education resources to counsel patients about vaccine safety and efficacy</li> <li>• Knowledge and performance gaps related to participation in available childhood immunization programs, including having effective and efficient vaccine administration strategies</li> </ul>	<ol style="list-style-type: none"> <li>1. Use evidence-based recommendations and guidelines to establish standardized vaccine administration procedures, including standardized protocols to screen for immunizations during adult, child, and adolescent patient encounters.</li> <li>2. Identify opportunities to participate in community discussions, community meetings, and informational campaigns to increase immunization uptake in the local community.</li> <li>3. Participate in available childhood immunization and registry programs, and administer using a standardized process.</li> <li>4. Establish practices that optimize reimbursement for the provision of immunizations.</li> </ol>	Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.



<ul style="list-style-type: none"> <li>• There are numerous barriers to achieving optimal vaccination rates, including low patient health literacy and understanding of vaccine safety and efficacy; organizational barriers such as cost, insurance coverage; and operational barriers such as not stocking all recommended vaccinations and lack of standing orders.</li> <li>• Only about 1/3 of private practice physicians participate in immunization registries.</li> </ul>		
<b>ACGME Core Competencies Addressed</b> (select all that apply)		
		Patient Care
X	Interpersonal and Communication Skills	Practice-Based Learning and Improvement
	Professionalism	X
		Systems-Based Practice
<b>Faculty Instructional Goals</b>		
<p>Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.</p> <ul style="list-style-type: none"> <li>• Provide up to 3 evidence-based recommended practice changes that can be immediately implemented, at the conclusion of the session; including SORT taxonomy &amp; reference citations</li> <li>• Facilitate learner engagement during the session</li> <li>• Address related practice barriers to foster optimal patient management</li> <li>• Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the <u>References</u> section below are a good place to start             <ul style="list-style-type: none"> <li>○ Visit <a href="http://www.aafp.org/journals">http://www.aafp.org/journals</a> for additional resources</li> <li>○ Visit <a href="http://familydoctor.org">http://familydoctor.org</a> for patient education and resources</li> </ul> </li> <li>• Provide evidence-based recommendations and guidelines for optimal vaccine administration and office protocols (adult, child, &amp; adolescent patients)</li> <li>• Provide examples of available resources to keep physicians up to date on current immunization schedules, alerts, and available childhood immunization programs (adult, child, &amp; adolescent patients)</li> </ul>		



- Provide specific examples to assist physician-learners in optimally managing their participation in childhood immunization programs (adult, child, & adolescent patients)
- Provide specific strategies and resources to assist physician-learners to counsel patients, and parents of children, using available patient education resources and motivational interviewing about vaccine safety and efficacy (adult, child, & adolescent patients)
- Provide specific strategies to assist physician-learners on how to manage and advise travelers on vaccine and medication preventable diseases, including performing appropriate risk assessments for travel-related illnesses (adult, child, & adolescent patients)
- Discuss the anti-vaccination movement and any evidence-based strategies to approach this problem.
- Provide alternative sources of vaccine administration in the community such as immunizing pharmacies and public health department.
- Provide recommendations regarding guidelines for Medicare reimbursement.
- Provide recommendations to maximize office efficiency and guideline adherence to current immunization schedules and recommendations.
- Provide an overview of newly available treatments, including efficacy, safety, contraindications, and cost/benefit relative to existing treatments.

**Needs Assessment:**

\*Note – the intention of this session it to provide office management strategies that increase vaccination rates & optimize revenue. Immunization schedule updates are covered by other topics.

Immunizations are critical to maintaining health and the prevention of disease for everyone in the U.S. Vaccinations are recommended throughout life to prevent vaccine-preventable diseases and their sequela. Adult vaccination coverage, however, remains low for most routinely recommended vaccines and well below Healthy People 2020 targets.<sup>1</sup> For example, immunization rates for influenza and pneumococcal vaccines among the elderly (especially minority elderly) are below desired levels.<sup>2</sup> Data from the 2011 CDC National Health Interview Survey indicates that only 45.3% of children 6 months to 17 years had received an influenza vaccination during the past 12 months; only 27.2% of adults 18-49 years had received an influenza vaccination during the past 12 months; and only 42.7% of adults 50-64 years had received an influenza vaccination during the past 12 months.<sup>3</sup> There are more than 49 thousand deaths annually from pneumonia, yet only 62.3% of adults 65 years and over have ever received a pneumococcal vaccination.<sup>4</sup> Vaccination rates for  $\geq 1$  dose of MenACWY,  $\geq 3$  doses of HPV (among females), and  $\geq 2$  doses of varicella vaccine are below the *Health People 2020* targets.<sup>5</sup>

In 2010, primary care physicians provided preventive care during more than 207 million office visits; including more than 22 million influenza vaccinations.<sup>6</sup> Eighty-seven percent of active American Academy of Family Physician (AAFP) members provide immunizations in their practices.<sup>7</sup> However, data from the 2012 AAFP CME Needs Assessment Survey indicates that family physicians have statistically significant and meaningful gaps in knowledge and skill to provide optimal immunization management.<sup>8</sup> More specifically, CME outcomes data from 2012-



2016 AAFP FMX (formerly Assembly) Immunization topic-related sessions, indicate that physician have knowledge and practice gaps regarding immunization alerts; standing protocols to screen for immunizations at every visit; the utilization of EHR reminder systems; being aware of new vaccines; providing adequate patient education regarding vaccine safety and efficacy; remaining up to date on new immunization schedules for various age groups; effectively utilizing appropriate coding/billing practices for proper reimbursement; and participation in childhood immunization programs.<sup>9-12</sup>

There are numerous barriers to achieving optimal vaccination rates, including low patient health literacy and understanding of vaccine safety and efficacy; organizational barriers such as cost, insurance coverage; and operational barriers such as not stocking all recommended vaccinations and lack of standing orders.<sup>2,13-17</sup> The 2012 AAFP Immunization Survey indicates that the most commonly-cited patient barriers to immunization were safety concerns (58%), personal or religious beliefs (53%) and cost (51%); the most commonly-cited practice-level barriers to immunization were cost (51%), patient acceptance (33%), and supply of vaccine (30%); sixty-five percent of respondents indicated that at least one parent refused vaccinations for their child; fifty-seven percent of respondents indicated participation in the Vaccines for Children program, and among those who did not indicate participation, respondents indicated that it was too burdensome (36%), difficulties associated with keeping vaccines separated (34%), difficulty of record-keeping (32%), and they don't care for children (28%).<sup>7</sup> It has been found that there is a positive relationship between reimbursement rates for immunizations and immunization rates. Yet the high cost of vaccines and inadequate reimbursement can limit the ability of some practices to offer them.<sup>18</sup>

Despite universal childhood vaccine programs in the U.S., recent studies indicate that between 2000 and 2015, nearly 60% of measles cases occurred in people who were not vaccinated against measles.<sup>19</sup> Among those who were unvaccinated, 71% refused it for nonmedical reasons. Nonmedical exemptions also were prevalent among unvaccinated cases of pertussis (ranging from 59 to 93 percent in eight outbreaks). These findings confirm that nonmedical exemptions increase the risk of vaccine-preventable illness in the unvaccinated individual and, by reducing overall community immunity, increase the risk of illness in children too young to be vaccinated, people with medical contraindications to vaccination, and vaccinated people with waning immunity.<sup>20</sup>

Family physicians should remain up to date on current AAFP immunization schedules, and receive continuing education aimed at helping physicians overcome common barriers to immunization management.<sup>21</sup> Family physicians may consider the following evidence-based recommendations for immunization management:<sup>22-25</sup>

- Immunization of children and adolescents is highly cost-effective and clinically effective.
- Use of a patient reminder and recall system is helpful in increasing immunization rates in developed countries.
- Physicians should explain to parents that vaccines—including the measles, mumps, and rubella vaccine—are beneficial, safe, and effective.
- Physicians should reassure parents that there is no evidence that vaccines cause autism or neurologic problems.



- Physicians should inform parents that the risk of intussusception with the rotavirus vaccine is minimal compared with the decrease in morbidity and mortality associated with rotavirus diarrheal disease.

Despite many patient and physician barriers to adult vaccinations, rates can be improved, often with simple interventions such as patient reminders and recalls, standing orders, and patient education. As our health systems become increasingly automated, CDS systems can help make vaccination more efficient and reliable.<sup>26</sup> There are numerous barriers to achieving optimal vaccination rates, including low patient health literacy and understanding of vaccine safety and efficacy; organizational barriers such as cost, insurance coverage; and operational barriers such as not stocking all recommended vaccinations and lack of standing orders.<sup>2,13-17</sup> Physicians can often improve immunization rates by simply making the recommendation to their patients.<sup>27</sup> There is some evidence suggesting that community discussions, community meetings, and information campaigns may increase immunization uptake in areas with only moderate vaccine use.<sup>28</sup> Additionally, while participation in regional immunization registries is shown to increase immunization rates, only about one-third of private practice physicians participate.<sup>29</sup> Physicians can minimize costs and maximize reimbursement by systematic comparison pricing, looking for ordering discounts, and using appropriate coding/billing practices.<sup>30</sup> Additionally, physicians can help low-income patients receive free vaccines through the Federal *Vaccines for Children (VFC)* program.<sup>30,31</sup>

Advising travelers on vaccine- and medication-preventable diseases is increasingly becoming the responsibility of primary care physicians. The approach to travel health recommendations should be based on an assessment of the risks for travel-related illnesses, the time available before trip departure, and the current epidemiology of preventable diseases. Physicians should take into account the adverse events and contraindications associated with each vaccine and medication.<sup>32</sup>

#### Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- AAFP Immunization Schedules<sup>33</sup>
- AAFP Medicare Part B Vaccine Coverage<sup>34</sup>
- Update on immunizations in children and adolescents<sup>24</sup>
- Update on immunizations in adults<sup>23</sup>
- Improving adult immunization rates: overcoming barriers<sup>26</sup>
- Interventions Aimed at Increasing Childhood Vaccination Rates<sup>28</sup>
- Travel immunizations<sup>32</sup>
- Vaccine administration: making the process more efficient in your practice<sup>18</sup>
- Achieving sustainable increases in childhood immunization rates<sup>35</sup>
- Coding for Vaccine Administration<sup>36</sup>
- ACP Immunization Advisor<sup>37</sup>
- CDC Vaccines for Children Program (VFC)<sup>31</sup>
- Resolving patients' vaccination uncertainty: going from "no thanks!" to "of course!"<sup>27</sup>
- Engaging Patients in Collaborative Care Plans<sup>38</sup>
- Clinical decision support: using technology to identify patients' unmet needs<sup>39</sup>
- Documenting and coding preventive visits: a physicians' perspective<sup>40</sup>
- Immunizations: how to protect patients and the bottom line<sup>30</sup>



- Encouraging patients to change unhealthy behaviors with motivational interviewing<sup>41</sup>
- CDC Vaccines & Immunizations: Patient Education<sup>42</sup>
- FamilyDoctor.org. Immunization Schedules (patient resource)<sup>43</sup>
- FamilyDoctor.org. Vaccines ( many patient resource)<sup>44</sup>
- FamilyDoctor.org. International Travel: Tips for Staying Healthy (patient resource)<sup>45</sup>

## References

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