U.S. Adult Immunization Program

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Outline

- Overview of US adult vaccine program
- US adult vaccination rates
- Barriers and facilitators of vaccination of adults
- US approach to improving implementation of adult vaccination recommendations
US Vaccination Program

- Vaccinations recommended throughout lifespan

- Major success of Vaccines for Children (VFC) Program
  - High vaccine coverage levels, with HPV the exception
    - Benefits adults as well
  - Vaccine requirements for school entry ensure high coverage
  - Medical home model for children

- Vaccines for Children (VFC) plus 317 program provide vaccine for uninsured and underinsured children and vaccine program infrastructure
Adult Vaccination

- High burden of illnesses among adults for which vaccines available

- More limited public health infrastructure and financial support for adult immunization
  - No equivalent “Vaccines for Adults” program
  - Some funding available to state public health programs (Section 317) for vaccination of uninsured adults

- No adult equivalent to school entry vaccination requirements
Advisory Committee for Immunization Practices (ACIP) Adult Immunization Schedule

- Reviewed and approved by ACIP and American College of Physicians, American Academy of Family Physicians, American College of Obstetricians and Gynecologists, and American College of Nurse-Midwives

- Published in *Annals of Internal Medicine* and *MMWR*
  - Adult immunization coverage published concurrently

- Recommendations by age group, medical and other indications
  - Travel vaccines not included

- Available in multiple formats, including app for mobile devices

[www.cdc.gov/vaccines/schedules/hcp/adult.html](http://www.cdc.gov/vaccines/schedules/hcp/adult.html)
Figures 1 and 2 should be read with the footnotes that contain important general information and considerations for special populations.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19–21 years</th>
<th>22–26 years</th>
<th>27–59 years</th>
<th>60–64 years</th>
<th>≥ 65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza¹</td>
<td></td>
<td></td>
<td>1 dose annually</td>
<td></td>
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<tr>
<td>Td/Tdap²</td>
<td></td>
<td></td>
<td>Substitute Tdap for Td once, then Td booster every 10 yrs</td>
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<tr>
<td>MMR³</td>
<td></td>
<td></td>
<td>1 or 2 doses depending on indication</td>
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<tr>
<td>VAR⁴</td>
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<td></td>
<td>2 doses</td>
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<tr>
<td>HZV⁴</td>
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<td></td>
<td>1 dose</td>
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<tr>
<td>HPV–Female⁵</td>
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<td></td>
<td>3 doses</td>
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<tr>
<td>HPV–Male⁶</td>
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<td>PCV13⁷</td>
<td></td>
<td></td>
<td>1 dose</td>
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<tr>
<td>PPSV23⁷</td>
<td></td>
<td></td>
<td>1 or 2 doses depending on indication</td>
<td>1 dose</td>
<td></td>
</tr>
<tr>
<td>HepA⁸</td>
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<td></td>
<td>2 or 3 doses depending on vaccine</td>
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<tr>
<td>HepB⁹</td>
<td></td>
<td></td>
<td>3 doses</td>
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<tr>
<td>MenACWY or MPSV4¹⁰</td>
<td></td>
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<td>1 or more doses depending on indication</td>
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<tr>
<td>MenB¹⁰</td>
<td></td>
<td></td>
<td>2 or 3 doses depending on vaccine</td>
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<td></td>
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<tr>
<td>Hib¹¹</td>
<td></td>
<td></td>
<td>1 or 3 doses depending on indication</td>
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</tbody>
</table>

Legend:
- Yellow: Recommended for adults who meet the age requirement, lack documentation of vaccination, or lack evidence of past infection
- Purple: Recommended for adults with additional medical conditions or other indications
- Blank: No recommendation
Figure 2. Recommended immunization schedule for adults aged 19 years or older by medical condition and other indications, United States, 2017

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Pregnancy</th>
<th>Immuno- compromised (excluding HIV infection)</th>
<th>HIV infection CD4+ count (cells/µL)</th>
<th>Asplenia, persistent complement deficiencies</th>
<th>Kidney failure, end-stage renal disease, on hemodialysis</th>
<th>Heart or lung disease, chronic alcoholism</th>
<th>Chronic liver disease</th>
<th>Diabetes</th>
<th>Healthcare personnel</th>
<th>Men who have sex with men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza</td>
<td>1 dose annually</td>
<td>Substitute Tdap for Td once, then Td booster every 10 yrs</td>
<td></td>
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<tr>
<td>Td/Tdap</td>
<td>1 dose Tdap each pregnancy</td>
<td>Substitute Tdap for Td once, then Td booster every 10 yrs</td>
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<tr>
<td>MMR</td>
<td>contraindicated</td>
<td>1 or 2 doses depending on indication</td>
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<tr>
<td>VAR</td>
<td>contraindicated</td>
<td>2 doses</td>
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<td></td>
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<td></td>
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<tr>
<td>HZV</td>
<td>contraindicated</td>
<td>1 dose</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPV-Female</td>
<td>3 doses through age 26 yrs</td>
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<tr>
<td>HPV-Male</td>
<td>3 doses through age 21 yrs</td>
<td>3 doses through age 26 yrs</td>
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<tr>
<td>PCV13</td>
<td>1 dose</td>
<td>1, 2, or 3 doses depending on indication</td>
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<tr>
<td>PPSV23</td>
<td>2 or 3 doses depending on vaccine</td>
<td>2 or 3 doses depending on vaccine</td>
<td></td>
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<tr>
<td>HepA</td>
<td>3 doses</td>
<td>1 or more doses depending on indication</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HepB</td>
<td>3 doses</td>
<td>2 or 3 doses depending on vaccine</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MenACWY or MPSV4</td>
<td>3 doses</td>
<td>3 doses</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>MenB</td>
<td>3 doses</td>
<td>2 or 3 doses depending on vaccine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Hib</td>
<td>3 doses post-HSCT recipients only</td>
<td>1 dose</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

- Recommended for adults who meet the age requirement, lack documentation of vaccination, or lack evidence of past infection
- Recommended for adults with additional medical conditions or other indications
- Contraindicated
- No recommendation
Vaccination Rates for Selected Vaccines and Populations

* The Healthy People 2020 target for coverage is 90% for all vaccines with the exception of rotavirus (80%) and HepA (85%).
† DTP (3+) is not a Healthy People 2020 objective. DTaP (4+) is used to assess Healthy People 2020 objectives.
§ Reflects 3+ doses through 2008, and Full Series (3 or 4 doses depending on type of vaccine received) 2009 and later.
U.S. Adult Vaccination Coverage 2015

- Brief update published online Feb 7 (full article pending publication in MMWR)
  - Non-influenza vaccination coverage – National Health Interview Survey (NHIS)
  - Influenza vaccination coverage – Behavioral Risk Factor Surveillance System (BRFSS)

- Key findings
  - Pneumococcal vaccination for 19–64y high risk: 23.0% (↑2.8%)
  - Tdap vaccination for ≥19y: 23.1% (↑3.1%); adults living with infants <1y: 41.9% (↑10.0%)
  - Shingles vaccination for ≥60y: 30.6% (↑2.7%)
  - Otherwise similar to 2014 estimates:
    - Pneumococcal vaccination for ≥65y: 63.6%
    - Hepatitis B vaccination for 19–59 years among persons with diabetes: 24.4%
  - Disparities by race and ethnicity, insurance (highest for private), education, and income

https://www.cdc.gov/vaccines/imz-managers/coverage/adultvaxview/coverage-estimates/2015.html
https://www.cdc.gov/flu/fluuvaxview/coverage-1516estimates.htm
Adult Vaccination Coverage for Selected Vaccines and Age Groups, National Health Interview Survey, 2010-15, and BRFSS survey for influenza vaccine 2010-16 seasons

- Tetanus 19+
- Pneumococcal HR 19-64
- Pneumococcal 65+
- Tdap 19-64
- Hepatitis B
- Zoster 60+
- Influenza 65+
Receipt of claims for pneumococcal vaccination among Medicare beneficiaries ≥65 years, CMS, United States, September 2009-September 2015

Slide courtesy of Carla Black, CDC, Presented at National Immunization Conference 2016, Atlanta

* Denominator in each time period includes all beneficiaries continuously enrolled in Medicare parts A and B for the duration of the period.
Figure 1. Seasonal Flu Vaccination Coverage by Age Group and Season, United States, 2009–2016

Error bars represent 95% confidence intervals around the estimates. The 2009-10 estimates do not include the influenza A (H1N1) pdm09 monovalent vaccine. Starting with the 2011-12 season, adult estimates reflect changes in BRFSS survey methods: the addition of cellular telephone samples and a new weighting method.
Influenza Vaccination Coverage among Pregnant Women, 2010-11 through 2014-15 seasons, Internet Panel Survey, United States

Influenza vaccination coverage* before and during pregnancy among women pregnant during October-January of each influenza season, Internet panel survey, United States

Percent vaccinated

Influenza season


43.9 43.2 50.5 51.8 50.3 49.9

www.cdc.gov/flu

<table>
<thead>
<tr>
<th></th>
<th>2013-2014 (n=484)</th>
<th>2014-2015 (n=580)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before most recent pregnancy</td>
<td>34.2</td>
<td>26.2</td>
</tr>
<tr>
<td>During most recent pregnancy</td>
<td>27.0</td>
<td>42.1</td>
</tr>
<tr>
<td>After most recent pregnancy</td>
<td>19.7</td>
<td>13.7</td>
</tr>
<tr>
<td>Never received</td>
<td>19.1</td>
<td>18.0</td>
</tr>
</tbody>
</table>

Slide courtesy of Carla Black, CDC, Atlanta, GA
# Adult Knowledge and Interest in Vaccination

<table>
<thead>
<tr>
<th>Question</th>
<th>Tdap (19+)</th>
<th>Pneumo (65+)</th>
<th>Zoster (60+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am not aware that I need this vaccine.</td>
<td>52%</td>
<td>22%</td>
<td>18%</td>
</tr>
<tr>
<td>I am aware that I need this vaccine, but haven't thought about getting it.</td>
<td>6%</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>I am considering getting this vaccine, but have not yet decided.</td>
<td>5%</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>I have decided to get this vaccine, but have not yet gotten vaccinated.</td>
<td>3%</td>
<td>4%</td>
<td>8%</td>
</tr>
<tr>
<td>I have decided not to get this vaccine.</td>
<td>13%</td>
<td>13%</td>
<td>19%</td>
</tr>
<tr>
<td>I have gotten this vaccine.</td>
<td>22%</td>
<td>56%</td>
<td>39%</td>
</tr>
</tbody>
</table>

Slide courtesy of Aparna Ramakrishnan
All percentages are weighted
Porter Novelli 2015. ConsumerStyles (Fall) unpublished
Barriers and Facilitators
Selected General Barriers to Implementation of Medical Interventions

- Insufficient information, knowledge, skill, time
- Too much information or too complex
- Evidence is not accepted as legitimate
- Lack of system structure to add new intervention
- Misaligned financial incentives
- Insufficient staff or systems support
- Lack of external pressure, expectations, e.g. professional norms

Adapted From Brian Mittman, NAIIS 2015, used by permission from Dr. Mittman
Challenges in Adult Immunization Implementation

- Insufficient information, knowledge, skill, time
  - Physicians in training have limited adult vaccination education, however all US accredited schools of pharmacy require immunization training
  - Providers in practice with competing priorities

- Too much information or too complex
  - Adult immunization schedule and some vaccine recommendations complex
  - Challenges developing accurate prompts/reminders in electronic medical records for some recommendations, especially for medical condition based recommendations
Table 1. Medical conditions or other indications for administration of PCV13 and PPSV23 for adults

<table>
<thead>
<tr>
<th>Medical indication</th>
<th>Underlying medical condition</th>
<th>PCV13 for ≥ 19 years Recommended</th>
<th>PPSV23∗ for 19 through 64 years Recommended</th>
<th>Revaccination</th>
<th>PCV13 at ≥ 65 years Recommended</th>
<th>PPSV23 at ≥ 65 years Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None of the below</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Immunocompetent persons</td>
<td>Alcoholism</td>
<td></td>
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<tr>
<td></td>
<td>Chronic heart disease†</td>
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<td></td>
<td>Chronic liver disease</td>
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<td></td>
<td>Chronic lung disease†</td>
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<td></td>
<td>Cigarette smoking</td>
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<td></td>
<td>Diabetes mellitus</td>
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<tr>
<td></td>
<td>Cochlear implants</td>
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<td></td>
<td>CSF leaks</td>
<td></td>
<td>≥ 8 weeks after PCV13</td>
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<tr>
<td>Persons with functional or anatomic asplenia</td>
<td>Congenital or acquired asplenia</td>
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<td></td>
<td>Sickle cell disease/other hemoglobinopathies</td>
<td></td>
<td>≥ 8 weeks after PCV13</td>
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<tr>
<td>Immunocompromised persons</td>
<td>Chronic renal failure</td>
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<tr>
<td></td>
<td>Congenital or acquired immunodeficiencies†</td>
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<td></td>
<td>Generalized malignancy</td>
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<td>HIV infection</td>
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<td></td>
<td>Hodgkin disease</td>
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<tr>
<td></td>
<td>Idiopathic immunosuppression‡</td>
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<tr>
<td></td>
<td>Leukemia</td>
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<td></td>
<td>Lymphoma</td>
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<td></td>
<td>Multiple myeloma</td>
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<td></td>
<td>Nephrotic syndrome</td>
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</tbody>
</table>

*This PPSV23 column only refers to adults 19 through 64 years of age. All adults 65 years of age or older should receive one dose of PPSV23 5 or more years after any prior dose of PPSV23, regardless of previous history of vaccination with pneumococcal vaccine. No additional doses of PPSV23 should be administered following the dose administered at 60 years of age or older.

†Including chronic obstructive pulmonary disease, emphysema, and asthma

‡Includes B- [humoral] or T-lymphocyte deficiencies, complement deficiencies (particularly C1, C2, C3, and C4 deficiencies), and phagocytic disorders (excluding chronic granulomatous disease)

§Diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids and radiation therapy.
Challenges in Adult Immunization Implementation

- Evidence is not accepted as legitimate
  - Does not appear to be a significant issue for adult medical providers

- Lack of system structure to add new intervention
  - Challenge especially for new providers to add vaccination, e.g. obstetricians and gynecologists

- Misaligned financial incentives
  - Providers concerned about payment and their patients’ costs
  - Few quality measures for adult vaccination, limiting healthcare systems’ financial incentives to implement vaccination services

- Insufficient staff or systems support
  - Multiple sources for medical care and vaccination and challenges with vaccination tracking; limited use of immunization registries
Number US Adults with One or More Vaccination Recorded in Immunization Information Systems (IIS), CDC IIS Annual Report, 2014-15

- Census age 19+: 2014 - 60.3% (increase of 8.4%) vs. 2015 - 38.9% (increase of 5.8%)

Slide modified from courtesy Mary Beth Carillo, AIRA
Place of flu vaccination (%) for children and adults, National Immunization Survey-Flu and National Internet Flu Survey, United States, early 2016–17 flu season

- Doctor’s Office: 65.3% (Children), 37.4% (Adults)
- Hospital, Emergency Department: 3.2% (Children), 6.7% (Adults)
- Clinic, Health Center, or Other Medical Place: 16.9% (Children), 7.8% (Adults)
- Health Department: 2.5% (Children), 1.0% (Adults)
- Pharmacy/Store: 24.3% (Children), 17.6% (Adults)
- Workplace: 0.1% (Children), 0.6% (Adults)
- Senior or Community Center: 0.0% (Children), 0.6% (Adults)
- School, College: 5.7% (Children), 1.0% (Adults)
- Other Place: 3.5% (Children), 1.0% (Adults)

Percentage†† receiving vaccination at this type of place

www.cdc.gov/flu
Adult Vaccine Financing

- Privately insured adults 19-64 years
  - Vaccines on adult immunization schedule generally covered

- Publically insured adults 19-64 years (Medicaid)
  - Variability among states in terms of vaccines covered and levels of payment to providers for vaccines and vaccine administration
  - Medicaid expansion states include all ACIP recommended vaccines

- Medicare (adults 65 years and older)
  - Part B includes influenza, pneumococcal, Td for wound management, and hepatitis B vaccines for high risk persons
  - Part D (drug) plans –
    - All other vaccines, though may be substantial copayment
    - Challenge for medical providers to bill Part D
Association of Health Insurance Status and Usual Place of Health Care with Vaccination Coverage, National Health Interview Survey, 2014

- 87% reported some type of health insurance
- Coverage 2-5 times higher for persons with health insurance
- Even among insured persons with >10 physician contacts in past 12 months, 24% - 89% missing a recommended vaccine
  - E.g. 65% diabetics missing hepatitis B vaccine, 61% high risk persons 18-64 years missing pneumococcal vaccine.

Williams WW, et al. MMWR 2016
<table>
<thead>
<tr>
<th>Barriers</th>
<th>Major Barrier</th>
<th>Moderate Barrier</th>
<th>Minor Barrier</th>
<th>Not a Barrier</th>
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<tbody>
<tr>
<td>Lack of adequate reimbursement for vaccine purchase</td>
<td>29</td>
<td>27</td>
<td>22</td>
<td>22</td>
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<tr>
<td>Difficulty determining if a patient’s insurance will reimburse for a vaccine</td>
<td>27</td>
<td>33</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>Patients not having insurance coverage for vaccines</td>
<td>22</td>
<td>37</td>
<td>27</td>
<td>14</td>
</tr>
<tr>
<td>Lack of adequate reimbursement for vaccine administration</td>
<td>22</td>
<td>26</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Upfront costs of buying vaccines</td>
<td>20</td>
<td>24</td>
<td>27</td>
<td>29</td>
</tr>
</tbody>
</table>

Stocking of Vaccines for Adults By U.S. General Internal Medicine (GIM) and Family Medicine (FM) Physicians

- GIM reported stocking a median of 8 vaccines (25\textsuperscript{th}-75\textsuperscript{th} percentile 5-10)
- FM reported stocking a median of 10 vaccines (25\textsuperscript{th}-75\textsuperscript{th} percentile 7-11)

\[ p=<0.001 \text{ for comparison between specialties} \]

% of Physicians Who Assess and Stock the Following Vaccines

Seasonal Influenza
- GIM - assess: 84%
- GIM - stock: 90%
- FM - assess: 98%
- FM - stock: 99%

Pneumococcal
- GIM - assess: 85%
- GIM - stock: 95%
- FM - assess: 86%
- FM - stock: 97%

% of Physicians Who Assess and Stock the Following Vaccines

- Td: 90% (GIM-assess), 81% (GIM-stock), 87% (FM-assess), 80% (FM-stock)
- Tdap: 93% (GIM-assess), 81% (GIM-stock), 97% (FM-assess), 86% (FM-stock)

% of Physicians Who Assess and Stock the Following Vaccine

- **Herpes Zoster**
  - GIM - assess: 82%
  - GIM - stock: 53%
  - FM - assess: 75%
  - FM - stock: 46%

Approaches to improving adult vaccination implementation
Strategies for improving adult immunization implementation

- Promoting adult vaccinations as professional norm
  - Annually publishing the adult immunization schedule and adult coverage data, Medscape commentaries, and CME
  - Promoting the adult immunization practice standards through professional medical and pharmacy organizations, including cooperative agreements

- Assessing impact of provider reported payment barriers
  - E.g. proportion of vaccination claims rejected
  - Insurance coding and billing errors that can be corrected
Strategies for improving adult immunization implementation

- Communications research, messages, materials, and tools
  - [https://www.cdc.gov/vaccines/adults/resources.html](https://www.cdc.gov/vaccines/adults/resources.html).
- Developing quality measures
  - Tdap and influenza vaccination of pregnant women
  - Adult vaccine composite measure under consideration
- Leverage adult immunization and pandemic vaccine response preparedness
  - Best preparedness is a routine program
  - Pandemic vaccination planning includes expanded adult vaccination in medical, pharmacy, and occupational health settings
Strategies for improving adult immunization implementation

- Coalitions and partnerships among government and non-government entities
  - National Adult and Influenza Immunization Summit
  - US government interagency working group
- Cooperative agreements with
  - 64 health departments
  - Professional medical and pharmacists societies and National Association of Community Health Centers
National Adult and Influenza Immunization Summit

• Co-sponsored by CDC, NVPO, and Immunization Action Coalition
• Working groups and Summit Organizing Committee meet monthly year-round
• Goal: bring together wide range of stakeholders to identify and solve issues regarding influenza and adult vaccination and improve uptake of ACIP recommended vaccines
• Over 130 different organizations including health departments, provider organizations, manufacturers, distributors, patient groups at annual in-person meeting
Standards for Adult Immunization Practice

- Multi-sector partners from NAIIS developed and National Vaccine Advisory Committee updated standards in 2014

- Recognizes that not all medical providers stock vaccine, importance of providers’ recommendation, and reporting of vaccines to vaccine registries

- Call to action for ALL Healthcare Providers for adults to
  - **ASSESS** vaccination status of all patients at every clinical encounter, even if they don’t stock vaccines
  - Strongly **RECOMMEND** vaccines that patients need
  - **ADMINISTER** needed vaccines or **REFER** to a vaccine service provider
  - **DOCUMENT** vaccines received by patients in state vaccine registries

Public Health Reports 2014;129:115–123
Adult Immunization Practice Standards

- Formally supported by Summit Organizing Committee Members
  - American Academy of Pediatrics (AAP)
  - American Academy of Physician Assistants (AAPA)
  - American Academy of Family Physicians (AAFP)
  - American College of Obstetricians and Gynecologists (ACOG)
  - American College of Physicians (ACP)
  - American Pharmacists Association (APhA)
  - Association of Immunization Managers (AIM)
  - Association of State & Territorial Health Officials (ASTHO)
  - Centers for Disease Control and Prevention (CDC)
  - Immunization Action Coalition (IAC)
  - Infectious Diseases Society of America (IDSA)
  - National Association of County & City Health Officials (NACCHO)
  - National Foundation for Infectious Diseases (NFID)
Surveys of Application of the Standards

- General adult population
  - Received standards during visits to healthcare providers (HCPs) and pharmacists
  - Received assessment, recommendation, offer or referral, vaccination

- Internet panel of adults (KnowledgePanel)
  - Probability-based, representative of U.S.
  - Visits to HCP or pharmacy
  - Weighted

- Outpatient settings

- Healthcare providers and pharmacists
  - Implemented standards during patient encounters
  - Assess, recommend, administer or refer, document

- Internet panel of physicians, NPs, PAs, pharmacists (Medscape)
  - Internal medicine, family medicine, ob/gyn, specialty care; dispensing pharmacists
  - Weighted

- Outpatient settings

CDC, unpublished data, 2017
Reported receipt of care reflecting the standards among adults with healthcare or pharmacy visits in the past year, United States, 2016 (N=1,476)

CDC, unpublished data, 2017
Reported implementation of standards components among HCPs, by provider specialty, United States, 2016 (N=1,918)

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CDC, unpublished data, 2017
Adult vaccination assessments reported by HCPs and reported by general adult population, United States, 2016

CDC, unpublished data, 2017
Survey Limitations

- Sampling bias – self-selected, opt-in internet panels of HCPs/pharmacists and general adult population
- Recall bias
- Self-reported, no validation
- HCPs/pharmacists may generalize and overestimate
- General adult population may not know “what goes on behind the scene” and underestimate
What can be achieved with using evidence-based approaches? Example from Indian Health Service

**IHS Adult Vaccination Coverage***

FY 2014 Q1 Reports

- Td/ Tdap in last 10 years (19...): 81.5%
- Tdap Ever (19 yrs+): 74.1%
- HPV1 Female (19-26 yrs): 49.5%
- HPV1 Male (19-26 yrs): 31.8%
- HPV3 Male (19-21 yrs): 27.4%
- Zoster (60 yrs+): 8.6%
- Pneumonia at/after 65 yrs+: 38.8%
- Pneumonia ever (65 Years+): 74.9%
- Total: 87.1%

Based on Active Clinical Users (2 visits in 3 years), N = 558,566

Slide courtesy of Amy Groom, CDC and Indian Health Service
Discussion

- A number of barriers exist for adult immunization implementation, especially related to providers concerns regarding reimbursement.

- Providers recommendations are the most important predictor of vaccination. Other evidence-based strategies can also boost vaccine uptake.

- Improving implementation of the Standards for Adult Immunization Practices, including routine vaccine needs assessment, and addressing payment concerns are likely to have the biggest impact.

- Linking pandemic vaccine planning and adult immunizations may also leverage existing resources.
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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.