Measuring and Making Progress:

Update on US Adult Immunizations Implementation and NAIIS Accomplishments

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Adult Vaccination Coverage, NHIS 2015

- 2015 data comprehensive analyses released May 4, 2017 in MMWR Surveillance Summary

Williams WW, et al. MMWR Surveillance Summary 1997;66(11)
Adult Vaccination Coverage for Selected Vaccines and Age Groups, National Health Interview Survey, 2010-15, and BRFSS survey for influenza vaccine 2010-16 seasons

Adult Vaccination Coverage, Selected Vaccines by Age and Increased Risk (IR) Status, United States

HP2020 Targets: 60% PPV IR 19-64 years, 90% PPV ≥65 years, 30% Shingles
Data Source: 2015 NHIS
Adult Tetanus-containing Vaccination Coverage by Age and High-risk Status, United States

<table>
<thead>
<tr>
<th>Vaccination Status</th>
<th>% Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Td or Tdap past 10 yrs, 19-49 yrs</td>
<td>62</td>
</tr>
<tr>
<td>Td or Tdap past 10 yrs, 50-64 yrs</td>
<td>64</td>
</tr>
<tr>
<td>Td or Tdap past 10 yrs, ≥65 yrs</td>
<td>57</td>
</tr>
<tr>
<td>Tdap past 10 yrs, ≥19 yrs</td>
<td></td>
</tr>
<tr>
<td>Tdap past 10 yrs, Living with...</td>
<td></td>
</tr>
<tr>
<td>Tdap past 10 yrs, HCP ≥19 yrs</td>
<td></td>
</tr>
</tbody>
</table>

Data Source: 2015 NHIS

Hepatitis B Vaccination Coverage by Age and High-risk Status, United States

<table>
<thead>
<tr>
<th>Vaccination Status</th>
<th>% Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>HepB (≥3 doses), ≥19 yrs</td>
<td>25</td>
</tr>
<tr>
<td>HepB (≥3 doses), Chronic Liver Disease</td>
<td>27</td>
</tr>
<tr>
<td>HepB (≥3 doses), HCP ≥19 yrs</td>
<td></td>
</tr>
<tr>
<td>HepB (≥3 doses), 19-49 yrs</td>
<td>32</td>
</tr>
<tr>
<td>HepB (≥3 doses), Diabetes 19-59 yrs</td>
<td>24</td>
</tr>
<tr>
<td>HepB (≥3 doses), Diabetes ≥60 yrs</td>
<td>13</td>
</tr>
</tbody>
</table>

HP2020 Target: 90% HepB Healthcare Personnel (HCP)

Data Source: 2015 NHIS
HPV Vaccination Coverage (≥1 dose ever), Adults 19-26 years of age by Sex, United States

- Females 19-26 yrs: 42%
- Females 19-21 yrs: 42%
- Females 22-26 yrs: 41%
- Males 19-26 yrs: 10%
- Males 19-21 yrs: 16%
- Males 22-26 yrs: 7%

Data Source: 2015 NHIS
Williams WW, et al. MMWR 2017

Adult Vaccination Coverage Rate Increases from 2014 to 2015

- Pneumococcal, HR 19-64 yrs: 2.8 (23%)
- Herpes Zoster, ≥60 yrs: 2.7 (31%)
- Tdap, ≥19 yrs: 3.1 (23%)

Data Source: NHIS 2014-2015
Racial/Ethnic Vaccination Disparities -- NHIS 2015

- Racial/ethnic differences persisted for all seven and widened for pneumococcal and herpes zoster

- Health Care Personnel (HCP) – Non-Hispanic black HCP and Hispanic HCP had lower coverage than white HCP for influenza, Tdap, and HepB vaccinations.

Williams WW, et al. MMWR 2017
Association of Health Insurance Status and Usual Place of Health Care with Vaccination Coverage, 2015 NHIS

- 89% reported some type of health insurance
- Coverage 2-5 times higher for persons with health insurance for influenza, Tdap, herpes zoster, and HPV vaccinations
- Even among insured persons with >10 physician contacts in past 12 months, 18.2%–85.6% missing a recommended vaccine

Williams WW, et al. MMWR 2017

Implementing the Standards for Adult Immunization Practice
Standards for Adult Immunization Practice

- Updated published in 2014
- Based on key impact of provider recommendation for patient vaccination
- Call to action for HCPs for adults to
  - **ASSESS** vaccination status of all patients at every clinical encounter
  - 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

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Percentage of U.S. Population with Vaccination Recorded in IIS, 2015

- **92%** of children <6 participating in an IIS in the United States - 2014
- **72%** of adolescents 11-17 participating in an IIS in the United States - 2014
- **39%** of adults greater than or equal to 19 years of age participating in an IIS in the United States - 2014

Percentage of U.S. Adults 19+ years with 1+ Adult Immunizations in IIS, CDC IIS Annual Report


Percentage of adults aged ≥19 years participating* in an Immunization Information System (IIS) – United States, five cities†, and the District of Columbia, 2015

National child participation: 39%

* Participation is defined as having one or more vaccinations administered during adulthood recorded in the IIS
†Chicago, Illinois; Houston, Texas; New York, New York; Philadelphia, Pennsylvania; and San Antonio, Texas.
Ensuring adults are up to date is integral component of national strategy for healthy ageing.

Accomplishments of the NAIIS

- An informed immunization community that is better able to communicate and collaborate at the local, state, and national level
  - Model of effective partnership
- Identification and improved granularity regarding key drivers and barriers to adult vaccine implementation, data gaps, and needs
- Annual awards identifies best practices and champions
- Updated working groups based on feedback from summit partners
  - Consolidated Provider and Access and Collaborations working groups
  - Created Influenza Working Group
  - Continued Quality Measures Working Group
  - Retired Patient Education WG --> provide regular communication updates
- First meeting of healthcare systems to identify facilitators and barriers specific to healthcare system implementation

Accomplishments of the NAIIS – Influenza

**Co-chairs: Amy Parker Fiebelkorn, Amy Behrman, Kelly McKenna**

- Created, published and piloted checklist for best immunization practices for vaccination clinics held at satellite, temporary, and offsite locations
- Created and published pledge and honor roll for organizations using checklist.
- Published FAQ’s to facilitate use of checklist and pledge.
- Created and published one page summary of principles underlying checklist
- Publicized checklist and pledge to NAIIS, Association of Immunization Managers, and One and Only Campaign Partners
- Conducted webinar on the checklist and its need for the NAICP
- Conducted CDC Immunization Netconference webinar 5/2/17
## Accomplishments of the NAIIS – Quality Measures

**Co-chairs:** Angela Shen, Amy Groom, Sharon Sprenger

- Developed maternal immunization measure draft

- Identifying pathways for potential implementation of maternal immunization measure and an adult composite measure
  - Maternal immunization composite measure is being tested by NCQA
  - NVPO has announced intent to solicit a contract for evaluation and testing of an adult composite measure
  - Working with CMS to explore feasibility of developing immunization quality measures for the Medicare ESRD program

- NVPO conducting analyses of vaccine coverage through a CMS-NVPO collaboration on Medicare claims analysis

## Accomplishments of the NAIIS – Provider and Access

**Co-chairs:** Debra Hawks, Kim Martin, Selam Wubu, Mitch Rothholz, LJ Tan, Carolyn Bridges

- Developed and published on-line billing and coding resources for adult vaccination to reduce errors:
  - Top questions and answers regarding coding and/or billing
  - Scenarios/how to code and bill for adult vaccines, and
  - Billing and coding resources identified or provided by Summit partners: medical associations, public health, and vaccine manufacturing.

- One-pager on immunizations activities and MIPS points
- Updated disparities fact sheet - adds disparities in Tdap vaccination of pregnant women on Medicaid
- Working toward updating of IIS brochure and/or key points highlighting the benefits to patients and providers for using the IIS
- Slide sets page visited about 90 times per month! Update pending
Collaborators

- Peng-Jun Lu, MD, PhD
- Alissa O’Halloran, MSPH
- Carla Black, PhD
- David K. Kim, MD
- Lisa A. Grohskopf, MD
- Tamara Pilishvili, MPH
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- Noele P. Nelson, MD, PhD
- Rafael Harpaz, MD
- Lauri E. Markowitz, MD
- Alfonso Rodriguez-Lainz, PhD, DVM
- Amy Parker Fiebelkorn, MSN, MPH
- Chelsea Lutz, MPH
- Stacie Greby, DVM, MPH
- Walter W. Williams, MD

For more information, contact CDC
1-800-CDC-INFO (232-4636)

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.