National Summit on Advancing the Draft National Adult Immunization Plan: Focus on Influenza

A program of The Gerontological Society of America
National Adult Vaccination Program (NAVP)
Supported by Sanofi Pasteur

Summit Goal:

Focusing on key elements of the draft National Adult Immunization Plan, engage multidisciplinary stakeholders to improve adult immunizations in the United States.

Summit Objectives:

I. Jumpstart implementation of key elements of the draft National Adult Immunization Plan.
II. Showcase the available evidence about the economic impact of adult immunization, the burden of illness due to influenza, and the systemic nature of influenza infection.
III. Expand the range of disciplines in the immunization neighborhood involved with advocating for and facilitating older adults getting an annual flu vaccination.
IV. Enable health care professionals to deliver a strong recommendation for adult vaccinations.

Final Agenda
As of 10/6/2015
Hilton Garden Inn, Washington, DC/Georgetown
2201 M Street NW, Washington, District of Columbia, 20037

Day 1: Tuesday, October 13, 2015
7:00 PM–9:00 PM  Registration and Networking Reception
Café Deluxe Private Room

Day 2: Wednesday, October 14, 2015
7:00 AM–8:00 AM  Registration and Breakfast
Rock Creek Ballrooms

8:00 AM–8:45 AM  Welcome and Introductions:
Why We Are Here and Expectations for the Day
James Appleby, RPh, MPH, Executive Director and CEO
The Gerontological Society of America

R. Gordon Douglas Jr., MD, Chairperson of the National Adult Vaccination Program and Emeritus Professor of Medicine
Weill Cornell Medical College
8:45 AM–9:15 AM  Keynote: Draft National Adult Immunization Plan
Bruce G. Gellin, MD, MPH, Deputy Assistant Secretary for Health and Director of the National Vaccine Program Office Office of the Assistant Secretary for Health U.S. Department of Health and Human Services

Key Objective: Provide history and overview of the plan and how it benefits and protects all U.S. residents from vaccine-preventable diseases; call to action for stakeholders, including individuals and organizations that have interests in adult immunization efforts; and coordination and prioritization of what federal and nonfederal partners can accomplish together.

9:15 AM–9:45 AM  Strengthen the Adult Immunization Infrastructure
Ayman Chit, PhD, Assistant Professor, University of Toronto, and Senior Director, Health Economics Modeling and Market Access, Sanofi Pasteur

Key Objective: Generate and disseminate evidence about the economic impact of adult immunization, including potential disease burden averted and cost effectiveness with the use of current vaccines.

9:45 AM–10:15 AM  Improve Access to Adult Vaccines
Mitchel C. Rothholz, RPh, MBA, Chief Strategy Officer, American Pharmacists Association

Key Objective: Expand the adult immunization provider network.

10:15 AM–10:30 AM  Break

10:30 AM–12:15 PM  Breakout Activity: Bridging Research to Practice

Given the multidisciplinary nature of aging issues, how can we best educate members of specific groups and constituencies about the fact that the flu vaccine reduces comorbidities in older adults? What do we know about each group’s biases, concerns, motivations, and needs?

Breakout Activity: Collaborating as a Multidisciplinary Team

How can we collaborate as a multidisciplinary team to maximize immunizations in the older adult population through education and engagement?
12:15 PM–1:15 PM  
Lunch

1:15 PM–1:45 PM  
Increase Community Demand for Adult Immunizations  
*Barbara Resnick, PhD, CRNP*, Professor, University of Maryland  

*Key Objective:* Educate and encourage health care professionals to recommend and/or deliver adult vaccinations.

1:45 PM–2:45 PM  
Breakout Activity: Key Elements to Engage All Stakeholders

Do you have recommendations for accomplishing this objective? Can you set a policy and educate your members and constituency on this issue? What key elements would be needed to engage and garner support from patients, providers, caregivers, consumers, policy makers, and other stakeholders?

2:45 PM–3:00 PM  
Break

3:00 PM–3:35 PM  
Summit Summary and Action Steps

Based on what you’ve learned here, what can you do when you are back in the office to help implement changes for the upcoming flu season? How can we apply what we’ve learned to the overall National Adult Immunization Plan?

*Show Us Your Best Stuff!*  
How is your organization currently promoting immunization to increase adult immunization rates? What can you share with the multidisciplinary stakeholders?

3:35 PM–3:45 PM  
Closing Remarks

3:45 PM  
Adjourn
The table below is an overview of the draft report of the National Adult Immunization Plan (NAIP) prepared by the National Vaccine Program Office (NVPO). Highlighted areas will be discussed at the GSA National Summit on Advancing the Draft National Adult Immunization Plan: Focus on Influenza, on October 13–14, 2015 in Washington DC.

<table>
<thead>
<tr>
<th>Goal</th>
<th>Objective</th>
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| 1. Strengthen the adult immunization infrastructure | 1.1 Monitor and report trends in adult vaccine-preventable disease levels and vaccination coverage data for all ACIP-recommended vaccines. In cases where there are associated Healthy People 2020 goals, measure progress toward established targets.  
1.2 Enhance current vaccine safety monitoring systems and develop new methods to accurately and more rapidly assess vaccine safety and efficacy in adult populations (e.g., pregnant women).  
1.3 Continue to analyze claims filed as part of the National Vaccine Injury Compensation Program (VICP) to identify potential causal links between vaccines and adverse events.  
1.4 Increase the use of electronic health records (EHRs) and immunization information systems (IIS) to collect and track adult immunization data.  
1.5 Evaluate and advance targeted quality improvement initiatives.  
1.6 Generate and disseminate evidence about the health and economic impact of adult immunization, including potential disease burden averted and cost-effectiveness with the use of current vaccines.  
1.6.1 Encourage the development and evaluation of models to estimate the cost-effectiveness of adult immunization programs.  
1.6.2 Encourage employers to offer and promote adult immunization using evidence on economic impact. |
| 2. Improve access to adult vaccines | 2.1 Reduce financial barriers for individuals who receive vaccines routinely recommended for adults.  
2.2 Assess and improve understanding of providers’ financial barriers to delivering vaccinations, including stocking and administering vaccines.  
2.3 Expand the adult immunization provider network.  
2.3.1 Encourage in-network coverage of adult vaccinations administered in accessible health care delivery settings (e.g., public health clinics, pharmacies).  
2.3.2 Identify and promote effective collaborative models, best practices (e.g., among physicians and other immunizers).  
2.3.3 Collect more data to evaluate reported in-network adequacy concerns.  
2.3.4 Strengthen the capacity of public health departments and federally qualified health centers to provide all adult vaccines by sharing effective practices for billing private insurance issuers for vaccination services provided to plan enrollees.  
2.3.5 Continue to identify the barriers that prevent or discourage pharmacists and other providers in complementary settings from accessing and entering vaccinations into state IIS and reporting vaccinations to the patients’ primary care providers.  
2.3.6 Clearly articulate the legal, practical, and policy barriers that remain so that the challenges are well understood by partners (e.g., legislators, lawyers) necessary to advance solutions.  
2.3.7 Assess the impact of providing vaccination services in accessible and complementary settings (e.g., pharmacies and community health centers) on vaccination coverage, cost-effectiveness, and care.  
2.3.8 Increase the number of community health centers that routinely administer vaccinations to adults and report vaccinations to immunization information systems and primary care providers.  
2.3.9 Encourage on-site, occupational health vaccination clinics and involvement of employers to increase employee vaccination rates. |
| 2.4 | Ensure a reliable supply of vaccines and the ability to track vaccine inventories, including during public health emergencies. |
| 3.1 | Educate and encourage *individuals* to be aware of and receive recommended adult immunizations. |
| 3.2 | Educate, encourage, and motivate *health care professionals* to recommend and/or deliver adult vaccinations. |
| 3.2.1 | Encourage all providers, including providers in complementary settings, to implement the NVAC Standards for Adult Immunization Practice, which include assessing patients' vaccination status at every clinical encounter, strongly recommending needed immunizations, and either administering vaccines (including documentation in an IIS) or referring patients to others who administer vaccinations. |
| 3.2.2 | Educate providers about implementing proven strategies (e.g., standing orders and reminder/recall) to increase vaccination coverage. |
| 3.2.3 | Encourage the incorporation of adult vaccine education into the training of health professionals (e.g., medical, nursing, and pharmacist education curricula; post-graduate training, certification, and board examinations; and required continuing education credits). |
| 3.2.4 | Enlist professional medical societies to support ongoing education of their trainees and members about the value and importance of adult vaccination (e.g., NAVC’s Standards for Adult Immunization Practice), the importance of clear provider recommendations, and ways to assess patients’ needs and adequately document receipt of vaccinations. |
| 3.2.5 | Encourage integration of vaccination into the provision of other adult preventive care services and chronic care management. |
| 3.2.6 | Promote increased attention to vaccine-specific recommendations in disease-specific clinical practice guidelines (e.g., diabetes, heart disease, lung disease, and stroke). |
| 3.2.7 | Highlight best clinical practices that could be adopted by providers and health systems: standing orders, reminder and recall systems, clinical decision support for immunizations into EHRs, and other tools. |
| 3.2.8 | Reduce vaccine storage and handling errors by improving provider education and awareness of vaccine delivery best practices and the need for standardized vaccine management plans. |
| 3.2.9 | Improve provider awareness of the Affordable Care Act’s impact on adult vaccine insurance coverage in Medicare, Medicaid, and private health insurance plans, both off and on the marketplaces. |
| 3.2.10 | Educate individuals and health care providers about the National Vaccine Injury Compensation Program. |
| 3.3 | Educate and encourage *other groups* (e.g., community and faith-based groups, tribal organizations) to promote the importance of adult immunization. |
National Summit on Advancing the Draft National Adult Immunization Plan:
Focus on Influenza
Hilton Garden Inn, Washington, DC
October 13–14, 2015

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National Summit on Advancing the Draft National Adult Immunization Plan

October 13-14, 2015

Welcome

James Appleby, RPh, MPH
Executive Director and CEO
The Gerontological Society of America
Summit Objectives

• Jumpstart implementation of key elements of the draft National Adult Immunization Plan
  – Expand the range of disciplines in the immunization neighborhood involved with advocating for and facilitating older adults getting an annual flu vaccination
• Engage, connect, and seek solutions

Summit Overview

• Insight into the draft National Adult Immunization Plan
• Goal I: Strengthen the Adult Immunization Infrastructure
  – Generate and disseminate evidence about the health and economic impact of adult immunization, including potential disease burden averted and cost-effectiveness with the use of current vaccines
• Goal 2: Improve Access to Adult Vaccines
  – Expand the adult immunization provider network
• Goal 3: Increase Community Demand for Adult Immunizations
  – Educate and encourage other groups to promote the importance of adult immunization
• Breakout Activities
• Action Steps
The Gerontological Society of America

- Professional membership organization focused on the aging process across the lifespan
- Mission
  - Promote multi- and interdisciplinary research in aging
  - Translate and disseminate research findings
  - Foster application of research into policy development
  - Promote/advocate for education/awareness on aging across disciplines
- Multidisciplinary members

Healthy People 2020 Vaccination Gaps

<table>
<thead>
<tr>
<th>Vaccines</th>
<th>Objectives</th>
<th>Baseline Data 2008</th>
<th>Healthy People 2020 Goals</th>
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<tbody>
<tr>
<td>INFLUENZA VACCINE</td>
<td>Adults 18 to 64 years</td>
<td>25%</td>
<td>80%</td>
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<td>High-risk adults 18 to 64 years</td>
<td>39%</td>
<td>90%</td>
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<tr>
<td></td>
<td>High-risk adults 65 years +</td>
<td>67%</td>
<td>90%</td>
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<td>Institutionalized adults 18 years+ (2006)</td>
<td>62%</td>
<td>90%</td>
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<td>Health care personnel</td>
<td>45%</td>
<td>90%</td>
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<td>PNEUMOCOCCAL VACCINE</td>
<td>Adults 65 years +</td>
<td>60%</td>
<td>90%</td>
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<td>High-risk adults 18 to 64 years</td>
<td>17%</td>
<td>60%</td>
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<tr>
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<td>Institutionalized adults (2006)</td>
<td>66%</td>
<td>90%</td>
</tr>
<tr>
<td>HERPES ZOSTER VACCINE</td>
<td>Adults 60 years +</td>
<td>7%</td>
<td>30%</td>
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Other vaccines: Tdap, HPV, hepatitis, MMR, meningococcal
Healthy People 2020. Immunization and Infectious Diseases. Available at: www.healthypeople.gov/2020

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How Does GSA Approach Improving Adult Vaccination Rates?

- Support and extend all adult immunization efforts along with the NAIIS, CDC, IAC, NFID, NVPO, NVAC, NACCHO, and others
- Capitalize on expertise of its multidisciplinary membership
- Establish the National Adult Vaccination Program (NAVP), a multifaceted initiative guided by a workgroup of renowned leaders in adult immunization
  - Enhance awareness, education, and behavior change

NAVP Workgroup

- R. Gordon Douglas Jr., MD, NAVP Workgroup Chairperson
  - Weill Cornell Medical College
- Rebecca Gehring, MPH
  - American College of Physicians
- Stefan Gravenstein, MD, MPH
  - Alpert Medical School of Brown University, GSA Subject Matter Expert
- Lisa McKeown, MPH
  - National Association of County and City Health Officials
- Barbara Resnick, PhD, RN, CRNP, FAAN, FAANP
  - University of Maryland, GSA Member/NAVP Representative
- Jerry Penso, MBA
  - American Medical Group Association
- William Schaffner, MD
  - Vanderbilt University School of Medicine
Brief Introductions

• Name
  – Organization you represent
  – Your role

The Future of Adult Vaccination is Bright!

R. Gordon Douglas Jr., MD
  Workgroup Chairperson
  National Adult Vaccination Program
  Emeritus Professor of Medicine
  Weill Cornell Medical College
NAVP
Looking back — Looking ahead

NAVP Stakeholder Organizations

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NAVP Convenes and Disseminates

NAVP Publishes
NAVP—Ongoing Vaccine Updates

National Summit on Advancing the Draft National Adult Immunization Plan

- Summit
- White Paper
- Webinar
Questions?

Federal Efforts to Advance Adult Immunization

Bruce G. Gellin, MD, MPH
Deputy Assistant Secretary for Health
Director, National Vaccine Program Office
U.S. Department of Health and Human Services
Federal Efforts to Advance Adult Immunization

Bruce Gellin, MD, MPH
@DrBGellin
Deputy Assistant Secretary for Health
Director, National Vaccine Program Office
U.S. Department of Health and Human Services

National Vaccine Program Office (NVPO)

- Congress created NVPO in 1987 to provide leadership and coordination on vaccine-related activities.

- Our activities align directly to the National Vaccine Plan.
Prioritizing Adults

- Reducing vaccine-preventable diseases in adults is a national health priority.
  - Adult immunization coverage rates remain low for most routinely recommended vaccines and are well below Healthy People 2020 targets.
  - Supported by a number of stakeholders and the National Vaccine Advisory Committee (NVAC), who recommended the development of a strategic plan 2011.

Draft National Adult Immunization Plan

- Facilitates coordinated action with a diverse set of federal and non federal stakeholders
- Includes priority indicators to draw attention to and track progress against four core goals
- Recognizes impact of aging population and diminished, aging immune response

Available at www.hhs.gov/nvpo/national_adult_immunization_plan_draft.pdf
Built on Existing Frameworks...

Development of the Draft National Adult Immunization Plan

- Environmental scan of literature over past 10 years
- Key stakeholders convened to provide high-level feedback
- Survey to generate feedback on possible plan priorities (96 respondents)
- 8 focus groups, 90 participants (designed to reflect diverse sectors)
- One on one interviews with dozens of thought leaders
- Follow up meetings to discuss indicators and metrics
- Public comment period
Goals of the National Adult Immunization Plan

1. Strengthen the Adult Immunization Infrastructure
2. Improve Access to Adult Vaccines
3. Increase Community Demand for Adult Immunizations
4. Foster Innovation in Adult Vaccine Development and Vaccination Related Technologies

Goal 1: Strengthen the Adult Immunization Infrastructure

Objective 1: Monitor and report trends in adult vaccine-preventable disease levels and vaccination coverage data for all ACIP recommended vaccines. Measure progress towards established targets in cases where there are HP2020 goals.

Objective 2: Enhance current vaccine safety monitoring systems and develop new methods to accurately and more rapidly assess vaccine safety and efficacy in adult populations.

Objective 3: Continue to analyze claims filed as part of the Vaccine Injury Compensation Program to identify causal links between vaccines and adverse events.
Goal 1: Strengthen the Adult Immunization Infrastructure (2)

Objective 4: Increase the use of Immunization Information Systems and Electronic Health Records to collect and track adult immunization data.

Objective 5: Evaluate and advance targeted quality improvement initiatives.

Objective 6: Generate and disseminate evidence about the economic impact of adult immunization, including potential disease burden averted and cost effectiveness with the use of current vaccines.

Goal 2: Improve Access to Adult Vaccines

Objective 1: Reduce financial barriers for individuals who receive vaccines routinely recommended for adults.

Objective 2: Assess and improve understanding of providers’ financial barriers to delivering vaccinations, including stocking and administering vaccines.

Objective 3: Expand the adult immunization provider network.

Objective 4: Ensure a reliable supply of vaccines and the ability to track vaccine inventories, including during public health emergencies.
Goal 3: Increase Community Demand for Adult Immunizations

Objective 1: Educate and encourage individuals to be aware of and receive adult immunizations.

Objective 2: Educate and encourage healthcare professionals to recommend and/or deliver adult vaccinations.

Objective 3: Educate and encourage other groups (e.g., community and faith based groups) to promote the importance of adult immunization.

Goal 4: Foster Innovation in Adult Vaccine Development and Vaccination Related Technologies

Objective 1: Develop new vaccines and improve the effectiveness of existing vaccines for adults.

Objective 2: Encourage new technologies to improve the distribution, storage, and delivery of adult vaccines.
<table>
<thead>
<tr>
<th>Goal and Objective</th>
<th>ACF</th>
<th>AHRQ</th>
<th>ASPE</th>
<th>ASPR: BARDA</th>
<th>CDC</th>
<th>CMS</th>
<th>HHS: IHS</th>
<th>NIH</th>
<th>NYP: ONC</th>
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<th>RHA</th>
<th>ACL</th>
<th>DHS</th>
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| Goal 1:   
Strengthen the adult immunization infrastructure.                              |     |      |      |             |     |     |          |     |         |     |     |     |     |     |
| Objective 1.1:   
Monitor and report trends in adult vaccine-preventable disease levels and vaccination coverage data for all ACIP/CDC-recommended vaccines. In cases   | ✓   | ✓   | ✓   |             | ✓   | ✓   |          | ✓   | ✓       | ✓   | ✓   | ✓   | ✓   |     |
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<td>Goal and Objective</td>
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<td>Public and Private Health Care Firms and Plans</td>
<td>State, Local, Territorial, and Tribal Governments</td>
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<td>Objective 1.1:</td>
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<td>Monitor and report</td>
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<td>trends in adult</td>
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<td>vaccine-preventable</td>
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<td>diseases.</td>
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</tbody>
</table>

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Influenza Vaccination Coverage Among U.S. Adults 2011-12, 2012-13, and 2013-14 Seasons

<table>
<thead>
<tr>
<th>Group</th>
<th>2011-12 (%)</th>
<th>2012-13 (%)</th>
<th>2013-14 (%)</th>
<th>Difference (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons ≥ 18 yrs</td>
<td>38.8</td>
<td>41.5</td>
<td>42.4</td>
<td>3.6</td>
</tr>
<tr>
<td>Persons 18-49 yrs, all</td>
<td>28.6</td>
<td>31.1</td>
<td>32.3</td>
<td>3.7</td>
</tr>
<tr>
<td>Persons 18-49 yrs, high risk</td>
<td>36.8</td>
<td>39.8</td>
<td>38.7</td>
<td>1.9</td>
</tr>
<tr>
<td>Persons 50-64 yrs</td>
<td>42.7</td>
<td>45.1</td>
<td>45.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Persons ≥ 65 yrs</td>
<td>64.9</td>
<td>66.2</td>
<td>65.0</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Estimates of the percentage of people vaccinated are based on interviews conducted beginning September (BRFSS) or October (NIS) 2013 through June 2014 and reported vaccinations from July 2013 through May 2014. For California, BRFSS interview data were only available for September-December 2013 and thus estimates for persons ≥ 18 years only reflect vaccinations during July-November 2013. For Mississippi, sample size was insufficient from interviews conducted April-June 2014 to estimate vaccinations past the end of February, 2014 for persons ≥ 18 years.

http://www.cdc.gov/flu/fluaxview/index.htm

Place of Influenza Vaccination, by age group, November 2012 NIS and NIFS*

*October 4 – November 17, 2012 National Immunization Survey (NIS) data for children 6 months through 17 years of age; November 2-15, 2012 National Internet Flu Survey (NIFS) data for adults ≥ 18 years of age.
CDC Director Dr. Tom Frieden said researchers are worried that with this particular strain of the virus, "we could have a season that is more severe than most with more hospitalizations and more deaths."

---

Morbidity and Mortality Weekly Report

Early Estimates of Seasonal Influenza Vaccine Effectiveness — United States, January 2015

In the United States, annual vaccination against seasonal influenza is recommended for all persons aged ≥6 months (1). Each season since 2004–05, CDC has estimated the effectiveness of seasonal influenza vaccine in preventing medically attended acute respiratory illness (ARI) associated with laboratory-confirmed influenza. This season, early estimates of influenza vaccine effectiveness are possible because of wide-
**Interim Adjusted Vaccine Effectiveness:**

<table>
<thead>
<tr>
<th></th>
<th>Flu pos vaccinated</th>
<th>Flu neg vaccinated</th>
<th>Adjusted VE (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Influenza A and B</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All ages</td>
<td>950</td>
<td>1371</td>
<td>23% (8 to 36)</td>
</tr>
<tr>
<td>Age group (yrs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 mos-17</td>
<td>410</td>
<td>583</td>
<td>24% (0 to 43)</td>
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<td></td>
<td></td>
<td></td>
<td>-18 to 41</td>
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<tr>
<td>18-49</td>
<td>268</td>
<td>400</td>
<td>16%</td>
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<td>-26 to 39</td>
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<tr>
<td>≥50</td>
<td>272</td>
<td>388</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-31 to 43</td>
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<tr>
<td><strong>Influenza A (H3N2)</strong></td>
<td></td>
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<tr>
<td>All ages</td>
<td>841</td>
<td>1371</td>
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</tr>
<tr>
<td>Age group (yrs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 mos-17</td>
<td>375</td>
<td>583</td>
<td>26% (2 to 45)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
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</tr>
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<td>388</td>
<td>14%</td>
</tr>
</tbody>
</table>

* Vaccine effectiveness was estimated as 100% X (1 – odds ratio [ratio of odds of vaccination among flu-positive cases to odds of vaccination among flu-negative controls]) using logistic regression. Multivariate models adjusted for study site, age, sex, race/Hispanic ethnicity, self-rated health status, and days from illness onset to enrollment. Models for “all ages” include age as a categorical variable; age-specific models include age in years as a continuous variable.
Interim Adjusted Vaccine Effectiveness: ≥1 Dose of 2014-15 Seasonal Influenza Vaccine

<table>
<thead>
<tr>
<th>Influenza A and B</th>
<th>% Flu pos vaccinated</th>
<th>% Flu neg vaccinated</th>
<th>Adjusted VE (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All ages</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flu A and B</td>
<td>950 49%</td>
<td>1371 56%</td>
<td>23% (8 to 36)</td>
</tr>
<tr>
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<td>410 39%</td>
<td>583 49%</td>
<td>24% (0 to 43)</td>
</tr>
<tr>
<td><strong>18-49</strong></td>
<td>268 43%</td>
<td>400 48%</td>
<td>16% (-18 to 41)</td>
</tr>
<tr>
<td><strong>≥50</strong></td>
<td>272 71%</td>
<td>388 76%</td>
<td>23% (-14 to 47)</td>
</tr>
<tr>
<td><strong>Influenza A (H3N2)</strong></td>
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<tr>
<td>All ages</td>
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</tr>
<tr>
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Universal Influenza Vaccine Desired Characteristics

• **What is a “universal vaccine”??**
  – Idealized vaccine: single vaccine for any influenza A subtype

• **Could be used for several seasons**
  – Remove annual ‘guesswork’ for strain selection
  – Reduce production costs
  – Eliminate vaccine mismatches
  – Reduce potential for vaccine shortages
  – Increase global supply of vaccine

• **Stockpile of vaccine for epi/pandemics**
• **Year round production**

---

Universal Influenza Vaccine Landscape

<table>
<thead>
<tr>
<th>Pre Clinical</th>
<th>Phase 1</th>
<th>Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protein Based</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computational Optimization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computationally Optimized Broadly Reactive Antigen (COBRA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HA1</td>
<td>HA2</td>
<td>M2e + NP</td>
</tr>
<tr>
<td>Immunostimulator sequence (ISS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M2e-VLPs</td>
<td>NPA + NPB</td>
<td>M1 + M2 polypeptides</td>
</tr>
<tr>
<td>T-cell vaccine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H5</td>
<td>Li-Key</td>
<td>Li-Key H5</td>
</tr>
<tr>
<td>Hybrid T-cell vaccine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVA Vector with HA and NP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVA LAIV</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Vectors/Adjuvants</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Listeria</td>
</tr>
<tr>
<td>Listeria Vector with NP</td>
</tr>
<tr>
<td>∆NS LAIV</td>
</tr>
<tr>
<td>Self assembling nanoparticles</td>
</tr>
<tr>
<td>DNA prime + TIV boost</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th><strong>DNA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjuvant Epitope DNA vaccines</td>
</tr>
<tr>
<td>DNA Vaccines</td>
</tr>
<tr>
<td>DNA prime + TIV boost</td>
</tr>
</tbody>
</table>

*No Phase 3 or Market Approved universal influenza vaccines*
Flu Vaccine Perceptions and Urban Legends

Nyhan B. The role of social networks in influenza vaccine attitudes and intentions among college students in the Southeastern United States. Journal of Adolescent Health 2012

Howard takes all of the flu shots that other employees refuse to take
Improving Adult Immunizations

NVAC Adult Immunization Standards
National Adult and Influenza Immunization Summit, annual since 2012
Long-Term Care Employer Toolkit


Adult Vaccination Finder

Available at http://www.vaccines.gov/
CDC Materials on Adult Vaccination

www.cdc.gov/vaccines/AdultPatientEd

CDC Products for Adults with Chronic Conditions

www.cdc.gov/vaccines/AdultPatientEd

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Thank You!

www.HHS.gov/NVPO | @DrBGellin

Questions?

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Strengthen the Adult Immunization Infrastructure

Ayman Chit, PhD
Assistant Professor, University of Toronto
Senior Director, Health Economics Modeling and Market Access, Sanofi Pasteur

Strengthen the Adult Immunization Infrastructure: Economics of Influenza and Influenza Vaccination

Ayman Chit MBiotech, PhD
Senior Director, Health Economics, North America, Sanofi Pasteur
Assistant Professor, Leslie Dan Faculty of Pharmacy, University of Toronto
Older Adults Suffer Disproportionately from Influenza-related Morbidity and Mortality\textsuperscript{1-3}

The greatest burden of influenza disease occurs in persons \( \geq 65 \) years of age despite achieving an immunization rate of 65%-70% in this population.

References:

Estimated Annual Number of Hospitalizations Due to Influenza in the US: 226,000

Estimated Annual Number of Deaths Due to Influenza in the US: 3,000 to 49,000

90\% of influenza-related deaths were in persons 65 years of age and older

Influenza-Associated Hospitalization and Death Rates Increase by Age\textsuperscript{1}

Age Group (years) \\ | 65-69 | 70-74 | 75-79 | 80-84 | ≥85 \\ |---|---|---|---|---\
| Annual influenza-related deaths | 190 | 321 | 431 | 686 | 1195 \\ | Annual influenza-related hospitalizations | 19 | 33 | 65 | 129 | 358

References:
Comorbidities Increase Mortality from Influenza amongst Older Adults


Influenza Related Hospitalization Is a Cause of Catastrophic Disability amongst Older Adults

Catastrophic Disability
- Defined as a loss of independence in ≥3 ADL (activities of daily living)
- 72% who experience catastrophic disability have been hospitalized

Leading causes of catastrophic disability
1. Strokes
2. Congestive heart failure
3. Pneumonia and influenza
4. Ischemic heart disease
5. Cancer
6. Hip fracture

References:
2. Ferrucci et al. JAMA 1997; 277:728.

Slide Courtesy of: Dr. Janet McElhaney
Per CDC: Influenza Worsens Comorbidities\textsuperscript{1-3}

Among those without comorbidities, influenza can lead to new infections such as secondary bacterial pneumonia, increase the risk of cardiac complications, etc.

Among those with comorbidities, influenza often aggravates existing chronic illness, such as:

- Congestive heart failure
- Chronic Obstructive Pulmonary Disease (COPD)
- Asthma
- Diabetes

Deaths from influenza-related complications are typically attributed to these underlying or secondary illnesses

References:

Leading Causes of Hospitalization in Older Adults: United States, 2008-2009\textsuperscript{1}

<table>
<thead>
<tr>
<th>Discharge diagnosis</th>
<th>Discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ischemic heart disease (includes heart attack)</td>
<td>889,000 (392,000)</td>
</tr>
<tr>
<td>Injury</td>
<td>805,000</td>
</tr>
<tr>
<td>Heart failure</td>
<td>758,000</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>652,000</td>
</tr>
<tr>
<td>Stroke</td>
<td>642,000</td>
</tr>
<tr>
<td>Cardiac arrhythmias</td>
<td>551,000</td>
</tr>
<tr>
<td>Osteoarthritis</td>
<td>545,000</td>
</tr>
<tr>
<td>COPD</td>
<td>474,000</td>
</tr>
<tr>
<td>Septicemia</td>
<td>458,000</td>
</tr>
<tr>
<td>Complications of care and adverse effects</td>
<td>405,000</td>
</tr>
</tbody>
</table>

Note: Data reflect the first listed discharge diagnosis for persons 65 years of age and older from non-federal, short-stay hospitals in the US.

References:
But, Where Is Influenza?

**Influenza is not on the top 10 list of reasons that seniors are hospitalized**

**BUT**

It has clinical connections to many of those conditions:

- Heart failure
- Heart attack
- Stroke
- Pneumonia
- COPD

Deaths from influenza-related complications are typically attributed to these underlying or secondary illnesses:

| 37% of US adults hospitalized with influenza during the 2010-2011 season had heart disease |

References:

Example: Influenza as a Trigger for Acute Myocardial Infarction (AMI)

A growing body of research offers consistent evidence that influenza and other acute respiratory infections can trigger AMI and cardiovascular death

In a case-series study in England and Wales, the risk of first AMI in adults (≥40 years of age) was significantly higher during an acute respiratory infection:

- Adjusted incidence ratio of:
  - 4.19 in Days 1-3 following a respiratory infection
  - 2.69 in Days 4-7, tapering to 1.41 in Days 15-28

- Risk was highest in persons ≥80 years of age
- This higher incidence ratio after acute respiratory infections occurred during the peak weeks of influenza virus circulation

References:
The True Burden of Influenza-associated Hospitalizations Is Likely Underestimated\(^1\)

![Graph showing rate of influenza-associated hospitalizations in adults 65+ by risk level and underlying cause.](image)

Only using “Pneumonia and Influenza” diagnosis underestimates true burden of influenza

Influenza is not always laboratory confirmed or documented in cases of influenza-associated secondary infections or complications

References:

The True Burden of Influenza-associated Deaths Is Likely Underestimated\(^1\)

![Graph showing mean annual influenza-associated deaths by underlying cause and age group, 1967-2007.](image)

Only using “Pneumonia and Influenza” diagnosis underestimates true burden of influenza

Influenza is not always laboratory confirmed or documented in cases of influenza-associated secondary infections or complications

References:
The Annual Economic Burden of Influenza in the US is $87.1 Billion

- $3.7 Billion (4%)
- $8.8 Billion (10%)
- $18.5 Billion (21%)
- $56.1 Billion (65%)

Disease in Adults 65+ drives the economic burden of influenza

References:

Vaccinating Working Adults<50 Years Is Cost-effective

- Study investigated cost-effectiveness in healthy working adults of:
  - Influenza vaccination,
  - Antiviral therapy,
  - or No intervention

- Study accounted for annual variation in vaccine efficacy
- For patients who were unwilling to take amantadine, annual vaccination had a cost-effectiveness ratio of $17,000/QALY saved.
- Societal perspective adopted

References:
Vaccination of 50-64 year olds Is cost-effective\textsuperscript{1-5}

Vaccination of 50–64-year-olds was found to be cost-effective in:

- Brazil\textsuperscript{2}
- United States\textsuperscript{4}
- Australia\textsuperscript{5}
- Spain\textsuperscript{1}
- France\textsuperscript{2}
- Germany\textsuperscript{2}
- Italy\textsuperscript{2}
- United Kingdom\textsuperscript{1}

References:

Vaccinating Persons aged 65+ Can be Cost Saving\textsuperscript{1}

Impact on ACRC-related spending for Medicare recipients (in dollars $)

<table>
<thead>
<tr>
<th>Year</th>
<th>Hospital Outpatient Services</th>
<th>Professional Services</th>
<th>Inpatient Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2000</td>
<td>-$102.92</td>
<td>$0.56</td>
<td>$1.37</td>
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<tr>
<td>2000-2001</td>
<td>-$43.61</td>
<td>$3.89</td>
<td>$1.76</td>
</tr>
<tr>
<td>2001-2002</td>
<td>$-64.47</td>
<td>$7.02</td>
<td>$7.64</td>
</tr>
<tr>
<td>2002-2003</td>
<td>$-130.47</td>
<td>$3.09</td>
<td>$7.02</td>
</tr>
</tbody>
</table>

References:
Persons aged 65+ Will Makeup a Larger Proportion of US Society by 2050

The population of adults over the age of 65 in the US is expected to significantly increase in the coming decades

References:

Majority of Medicare FFS Beneficiaries (>21.4M) Live with Multiple Chronic Conditions

<table>
<thead>
<tr>
<th>% of Medicare FFS Beneficiaries with Chronic Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 1</td>
</tr>
<tr>
<td>2 to 3</td>
</tr>
<tr>
<td>4 to 5</td>
</tr>
<tr>
<td>6+</td>
</tr>
</tbody>
</table>

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Influenza Vaccination Coverage Rates Among Seniors Have Remained Stagnant for Decades

Influenza Vaccination Coverage Rates Remain Below Target

References:

References:

The Healthy People 2020 influenza vaccination goal for pregnant women is under development and not yet published.
Conclusions

- Influenza is a significant cause of morbidity and mortality in adults, particularly in those ≥65 years of age
- Influenza costs the US $87 Billion annually
- The burden of influenza is likely under estimated
- Vaccination against influenza is an effective and economical intervention
  - Cost-effective in younger adults
  - Cost-saving in older adults
- Improving immunization of seniors is economically rewarding
  - Improved immunization rates
  - Embracing improved technologies

THANK YOU
Questions?

Improve Access to Adult Vaccines
The Immunization Neighborhood

Mitchel C. Rothholz, RPh, MBA
Chief Strategy Officer
American Pharmacists Association
National Adult Immunization Plan

• Goal 2: Improve Access to Adult Vaccines
  • Objective 2.3 Expand the adult immunization provider network

Expand the Adult Immunization Provider Network

• (NAIP 2.3.1) Encourage in-network coverage of adult vaccinations administered in accessible health care delivery settings (e.g., public health clinics, pharmacies).
• (NAIP 2.3.2) Identify and promote effective collaborative models, best practices (e.g., among physicians and other immunizers).
• (NAIP 2.3.3) Collect more data to evaluate reported in-network adequacy concerns.
• (NAIP 2.3.4) Strengthen the capacity of public health departments and federally qualified health centers to provide all adult vaccines by sharing effective practices for billing private insurance issuers for vaccination services provided to plan enrollees.
• (NAIP 2.3.5) Continue to identify the barriers that prevent or discourage pharmacists and other providers in complementary settings from accessing and entering vaccinations into state IIS and reporting vaccinations to the patients’ primary care providers.
• (NAIP 2.3.6) Clearly articulate the legal, practical, and policy barriers that remain so that the challenges are well understood by partners (e.g., legislators, lawyers) necessary to advance solutions.
• (NAIP 2.3.7) Assess the impact of providing vaccination services in accessible and complementary settings (e.g., pharmacies and community health centers) on vaccination coverage, cost-effectiveness, and care.
• (NAIP 2.3.8) Increase the number of community health centers that routinely administer vaccinations to adults and report vaccinations to immunization information systems and primary care providers.
• (NAIP 2.3.9) Encourage on-site, occupational health vaccination clinics and involvement of employers to increase employee vaccination rates.
“Immunization Neighborhood”

• Purpose:
  • Collaboration, Coordination, and Communication among immunization stakeholders dedicated to meeting the immunization needs of the patient and protecting the community from vaccine-preventable diseases.

  • Coined by APhA in 2012

Engagement Within the “Immunization Neighborhood”

Strategy to Address Pediatric, Adolescent, and Adult Immunization Needs

What Is Your Role?

Meeting specific needs of targeted populations and communities

Supporting the Neighborhood
  • HIT
  • Documentation
  • Standards / Guidelines
  • Consistent Messaging
  • Scope of Authority
  • Referral Mechanisms

Complementary activities related to influenza
  • Pandemic influenza neighborhood
  • Immunizations
  • Antiviral therapy

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Immunization Neighborhood

• A community approach to addressing immunization needs through collaboration, coordination, and communication among all immunization stakeholders to meet the immunization needs of patients and protect the public from vaccine-preventable diseases

• Patient and community centric
  • Driver for each neighborhood rests with meeting the needs of the patient and the community

• An entire community can invest in assessing, administering, and/or referring patients to receive appropriate vaccines

• Supports the sharing and exchanging of immunization data among providers
  • Can be focused on populations (pediatric, adolescent, and adult) and/or
  • Preventable diseases (HPV, pertussis, etc.) to meet the needs of patients and the communities served

• All providers, caregivers, and community advocates have a role with everyone focused on meeting the needs of the patient
  • Advocate, Facilitate, Immunize

• Patient education, comfort level, trusted providers, and timely access all can influence vaccine uptake and are areas that stakeholders can impact

Touchpoints

Patient
• Entry point: Physician
• Entry point: Other providers

Physician
• Assess and administer
• Assess and refer

Other Providers
• Assess and administer (communication and documentation)
• Assess and refer

Key Areas
• Expectations of providers
• Data sharing and communication
• Referral for immunization and other services

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Example: Pharmacy’s Unique Contribution

Improving medication use...Advancing patient care...Enhancing public health

- Access, proximity, extended hours
  - Especially when others are closed
  - Equivalent of U.S. population entering a pharmacy each week (1)
- Ability to easily identify high-risk patients based upon their medications
- Public’s trust—Gallup Poll/enthusiastic acceptance
- Message dissemination vehicles
- Practice guided by nationally adopted guidelines
- Support completion of multi-dose vaccines (HPV, etc.)
- Knowledgeable vaccine resource
- Education/training: more than 260,000 pharmacists trained regarding immunizations across the lifespan
- Ability to handle storage issues

(1) Doucette WR, McDonough RP. Beyond the 4 Ps: using relationship marketing to build value and demand for pharmacy services. J Am Pharm Assoc. 2002;42:183-188.

Trends

2005 – mass majority influenza...

2015 – beyond influenza...

2009 (H1N1) – all states allow pharmacists to administer influenza vaccine...

For further information visit:
http://www.pharmacist.com/sites/default/files/files/Pharmacist_I2_Authority_1_31_15.pdf

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Collaboration

• **Agreement among stakeholders:** meet patient needs, protect patients from vaccine-preventable diseases, and increase patient access to recommended vaccinations
  - Agreement on meeting patient and community immunization needs
  - What are the expectations and roles of each neighborhood member?
  - Depending upon state requirements
    - Scope of vaccine offerings
    - Protocols / standing orders
    - Common messaging

Let’s not repeat history...

Today we have
* good vaccines
* access points

We need collaboration focused on improving public health

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Components of an Immunization Protocol

- Identify individual who has delegated activity
- Identify who is authorized to administer vaccine
- State types of vaccines practitioner is authorized to administer
- Define procedures, decision criteria, or plan that provider should follow, including when to refer patient
- Identify procedure for emergency situations
- State record-keeping and documentation procedures

### Immunization Neighborhood Protocol / Standing Order Expectations

Providers within the immunization neighborhood should ensure that vaccine administration information is entered into the immunization information system (IIS) and/or the patient’s medical record if one exists, to ensure tracking toward vaccine series completion and message reinforcement.

Standing Orders / Protocols

- One study indicates that only 23% of internal medicine and family medicine physicians reported consistent use of SOPs for both influenza and pneumococcal polysaccharide vaccines (1)
- 2014 APhA Annual Immunization Survey indicated that the source of immunization protocols or standing orders for pharmacists varies with regard to the type of physician who enters into the agreement:
  - (35%) with a corporate physician
  - (31%) with a family physician
  - (19%) with an internal medicine physician
  - (8%) with a public health department and other authorized prescribers
- As pharmacists have expanded their scope of immunization offerings, an increasing number of vaccinations are administered after receiving a prescription from a prescriber (33%)

Coordination

- Guided by established standards and recommendations
- Provider access to needed information
- **Assess** patient immunization status
  - Patient history (oral and record cards)
  - Electronic health records / IIS
- **Administer** vaccines or **refer** patient to immunizer
- **Referral** of patients for other services / entry or re-entry into system

Communication (documentation)

- Documentation to electronic health record and IIS
  - Completeness of health records
  - Reporting for quality measures
- Provision of documentation to patient
- Patient reminders and recall
  - Completion of series (HPV, Hep B, etc.)
- Billing for vaccinations

Future:
- Seamless two-way access, including to registries
- One-entry
Supporting the “Immunization Neighborhood”

- Increase access points
- Enhanced and consistent communications/education
- Documentation/Quality Measures (outcomes)
  - Interface among primary care, public health, pharmacists, and other providers
  - Documentation processes and use of technology
    - Goal: documentation back to the health record
    - Assist in achieving quality measures
- Collaboration/impact of state laws/regulations
  - Address challenges in obtaining protocol agreements
    - Consensus on components and definitions
    - Integration of immunizations with other patient care activities
      - Diabetes management, Tdap, HPV
- Who is paying provider?
  - Network inclusion
  - Standard and simplified processes

Rx to Our Nation’s Immunization Initiative
Questions?

Introduction to Breakout Sessions

Patti Manolakis, PharmD
NAVP Project Director

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Breakout Groups

- Framework/Policy
- Provider/Healthcare Team
- Public—Patient/Caregiver

Break
Breakout Sessions

Lunch
Increase Community Demand for Adult Immunizations

Barbara Resnick, PhD, CRNP
Professor, University of Maryland

Immunization … Is the Standard of Care

• In 2014, NVAC published updated Standards for Adult Immunization Practice to emphasize that all providers who care for adults are responsible for assessing immunization needs at every clinical encounter, strongly recommending needed vaccines, administering recommended vaccines, and documenting receipt in a state immunization information system.

• The standards also instruct providers who do not vaccinate to refer adult patients to a vaccinating provider.
The National Adult Immunization Plan

- 5-year plan with a focus on adult vaccinations and helping us get to the goals set for Healthy People 2020.
- Four goals have been set:
  - Goal 1: Strengthen the adult immunization infrastructure.
  - Goal 2: Improve access to adult vaccines.
  - **Goal 3: Increase community demand for adult immunizations.**
  - Goal 4: Foster innovation in adult vaccine development and vaccination-related technologies.

Goal 3: Increase community demand for adult immunizations

- Goal 3 includes three objectives to increase community demand through communications and outreach strategies:
  - **Objective 3.1:** Educate and encourage *individuals* to be aware of and receive recommended adult immunizations.
  - **Objective 3.2:** Educate, encourage, and motivate *health care professionals* to recommend and/or deliver adult vaccinations.
  - Objective 3.3: Educate and encourage *other groups* (e.g., community and faith-based groups, tribal organizations) to promote the importance of adult immunization.
Objective 3.2 Educate, encourage, and motivate health care providers to recommend and/or deliver vaccinations

- 3.2.1 Encourage all providers, including providers in complementary settings, to implement the NVAC Standards for Adult Immunization Practice, which include assessing patients’ vaccination status at every clinical encounter, strongly recommending needed immunizations, and either administering vaccines (including documentation in an IIS) or referring patients to others who administer vaccinations.
- 3.2.2 Educate providers about implementing proven strategies (e.g., standing orders and reminder/recall) to increase vaccination coverage.
- 3.2.3 Encourage the incorporation of adult vaccine education into the training of health professionals (e.g., medical, nursing, and pharmacist education curricula; post-graduate training, certification, and board examinations; and required continuing education credits).
- 3.2.4 Enlist professional medical societies to support ongoing education of their trainees and members about the value and importance of adult vaccination (e.g., NVAC’s Standards for Adult Immunization Practice), the importance of clear provider recommendations, and ways to assess patients’ needs and adequately document receipt of vaccinations.
- 3.2.5 Encourage integration of vaccination into the provision of other adult preventive care services and chronic care management.
- 3.2.6 Promote increased attention to vaccine-specific recommendations in disease-specific clinical practice guidelines (e.g., diabetes, heart disease, lung disease, and stroke).
- 3.2.7 Highlight best clinical practices that could be adopted by providers and health systems: standing orders, reminder and recall systems, clinical decision support for immunizations into EHRs, and other tools.
- 3.2.8 Reduce vaccine storage and handling errors by improving provider education and awareness of vaccine delivery best practices and the need for standardized vaccine management plans.
- 3.2.9 Improve provider awareness of the Affordable Care Act’s impact on adult vaccine insurance coverage in Medicare, Medicaid, and private health insurance plans, both off and on the marketplaces.
- 3.2.10 Educate individuals and health care providers about the National Vaccine Injury Compensation Program.

We address these behaviors…
We need to address this behavior as well…

Providers Need to…
Take on the Challenge

• A Step Approach is helpful and includes:
  • Step I. Be or identify a champion
  • Step II. Gather a team
  • Step III. Identify the barriers and challenges
  • Step IV. Establish solutions
  • Step V. Make it happen

“I’d prefer alternative medicine.”
Step I: Be a Champion

A clinical staff member who leads efforts to advance immunization practices, rates, reporting, and quality within a clinical practice.

The champion promotes the preventive health value of immunizations; ensures staff are trained and systems are aligned to advance immunization rates and adherence to related quality measures; and interprets, communicates, and integrates changes in vaccine policies, recommendations, and quality measures into practice as they occur.

Step II: Gather a Team

• Might be other office staff; Director of Nursing; Assisted Living manager, etc.
Step III: Identify the Barriers

- Don’t assume you know… brainstorm a little, ask WHY don’t we… WHY can’t we?
- What do staff know and what do they believe?
- Education anywhere and everywhere will be helpful:
  - Traditional in-services
  - Education to residents, families, and patients within practices
  - Make education easy – a simple handout, a flyer, on the TV screen.

Step IV: Establish SOLUTIONS With the Team

- Brainstorm and establish a plan for how to overcome the barriers.
- You may need to be innovative:
  - Barriers may be access for some
  - Staffing for others
  - Knowledge and beliefs for others
  - FEAR
Step V: Make It Happen

• A Case Example: The CCRC Setting
  • We had high rates of adherence to flu and pneumonia vaccines and generally have patients asking when the flu shots will be given. Flu shots are provided over a 5-day period each fall. If missed, patients could simply request an immunization as long as we had remaining samples (which were generally always available throughout the year). Pneumonia is done throughout the year.
  • We called those who did not voluntarily come down for a shot and established if they were immunized elsewhere.

Making It Happen

• The CCRC setting:
  • Those with cognitive impairment were reminded and/or escorted.
  • All Assisted Living and Nursing Home residents were routinely vaccinated.
How Were We Doing With Other Vaccines?

- Shingles vaccine uptake was low and annually we had anywhere from 10-20 cases of shingles.
- Tdap was likewise low and tetanus not addressed unless there was a puncture wound.
- My goal was to increase our rates first of zoster vaccine and then address Tdap.
- Step I: I was the champion and initially I was swimming upstream.

Step II: Gathering the Team

- Started with a core team to include the Director of Nursing; the Delegating Nurse in Assisted Living; the Medical Director; and PATIENTS and FAMILIES.
- Started with some education via monthly health talks to patients and families with handouts, and one-on-one education with my team members to excite and engage them.
- I encouraged…slyly…families to ask staff for this immunization for their family members who were in assisted living and the nursing home.
Step III: Identification of Barriers

- Barriers…
  - Knowledge, belief, and excitement about this was a barrier. It was not high on the list of priorities of care in these settings. Surveyors do not look at immunization rates for shingles or incidence of shingles per year!
  - Access and process
  - Cost

Beliefs Drive Behavior
Step IV: Brainstorm and Establish Solutions

- It took me about a year to work with the team to get them over the hump of the “maybe tomorrow” syndrome. I used the voice of families and let administrative staff know that families were asking for this! I continued to provide education about the benefit for residents.
- I worked with Director of Nursing and brought in our institutional pharmacy partners to work out the best way to access and store the medication and work out the financial aspects.
  - The facility decided to cover the cost although other alternatives were possible.

Brainstorm and Establish Solutions

- Getting family permission was needed for those in institutional settings. I volunteered and wrote a letter to all residents and proxies (that the Medical Director and I signed). The letter provided some information to families about the vaccine and informed them that all would be vaccinated unless they let us know that the resident already had this vaccination or that they did not want it done.
  - We had no refusals and only two individuals were already vaccinated.
  - I gave my email and cell number and got lots of individual questions…often from families asking about their own need for vaccination!
Step V: Making It Happen

• A nurse was allocated in the nursing home setting and in the assisted living setting to spend the day simply providing zoster vaccines to each resident.
• For independent living residents, we do a sign-up list and then order appropriately and vaccinate the residents.
• Ongoing work is needed to still reach and maintain a 90%-100% vaccination rate. Our goal is well above the goal for Healthy People 2020 of 30% for shingles.

Next Steps

• Tdap is next and families have already been informed.
• Moving beyond single settings...your champion behavior needs to increase demand among other providers and the community via:
  • Editorials if you have those opportunities
  • Local community education
  • Cocktail parties, board meetings, religious events, and your favorite social groups.
  • Professional meetings across all disciplines.
Don’t respond to the clinical problems encountered such as flu, pneumonia, and shingles.

FIGHT against them with the best approaches we have.

Take it on...be a champion for your patients and the community.

Questions?
Breakout Sessions

Patti Manolakis, PharmD
NAVP Project Director

Break
Breakout Summary and Action Steps

Patti Manolakis, PharmD
NAVP Project Director

Provider/Healthcare Team—ACCESS

- Educate and inform providers about current recommendations, strategies to implement these recommendations and available resources to support vaccine efforts
- Expand utilization of registries and HER to access and document immunization status and coordination of care
Provider/Healthcare Team—ACCESS

- Build successful immunization neighborhoods that support collaboration and communication among immunization stakeholders that measurably increases immunization rates
- Leverage research, data and quality measures to support the recognition of the value of vaccines and increase vaccination rates
- Align financial incentives to encourage providers to educate and immunize patients to receive vaccines
- Develop and disseminate compelling messages for patients that encourage action to access recommended vaccines

Provider/Healthcare Team
Health/Economic Burden of Flu

- **What we want to do?:** Build provider confidence and support in the value of adult influenza vaccinations?
- **What do we want to say?:** Vaccine GOOD! Disease BAD!
  - Influenza is not “just the flu”
    - State on catastrophic illness from Dr. Chit’s presentation
  - Vaccines are safe and efficacious and needed EVERY year
    - CDC recommendations are universal
  - Just do it! This is your job!
Public (Patient/Caregiver)—ACCESS

- Utilize ALL media modalities to develop targeted, cross-generational education campaigns for all populations
- Eliminate barriers to vaccination by providing transportation, childcare & offering vaccinations in non-clinical/non-traditional settings
- Create & Implement incentive/Quality measures to increase immunization rates
- Incentivize employers to offer vaccines to reduce absentee-ism & increase productivity
- Increase availability/access to training about importance of immunization

Public (Patient/Caregiver)—Health/Economic Burden

A small investment in the influenza immunization leads to huge dividends and promotes individual and community wellness along with economic stability

- Flu shots save lives and improve Quality of Life
  *flu/catastrophic disability
- Keep your workplace working
  *studies on lost workdays due to illness/flu
- Protect Yourself, protect your community
  *Evidence on herd immunity
- Small investment w/Huge dividends
  *Cost –effective data
- You owe it to yourself and loves ones to immunize
  *Research on caregiver illness/caregiver burden
Framework/System/Policy—ACCESS

• Develop and disseminate and hold providers/organizations accountable to quality and performance metrics.
• Develop and implement policy improvements that make IIS accessible and valuable (useful) for providers, patients, and systems (including geographic boundaries – state lines, districts, etc.)
• Involve and empower patients and families to engage in discussions and development of vaccine policies
• Assess and remove financial and policy barriers that impede access and expansion of the immunization neighborhood (for potential vaccine providers and venues)

Framework/System/Policy—ACCESS

• Remove payment barriers that impede patient access to receiving vaccines
• Build support and advocacy for vaccine-friendly policies among patients, providers, and stakeholders
• Identify and address gaps in vaccine policy
• Develop financial incentives based in evidence/research that encourage vaccine engagement (recommendation, administration) and new vaccine development
• Coordinate collaboration, communication and information sharing among traditional and nontraditional vaccine partners
Framework/System/Policy—Health/Economic Burden

- The current structure and policies of our healthcare system worsen the health and economic burden of the flu
  - Flu and complications are the third leading cause of disability in the U.S.
  - The $87.1+ billion drain on our economy directly accountable to the flu is unsustainable and borne by all.
  - Flu is using up resources and capacity for care in ERs, EMS
  - Be recognized for innovating and exercising leadership to improve health and economic burden
  - Prevention of flu through vaccination is cost effective with all adults – actually cost saving in ages 65 and older

Show Us Your Best!
Data driven collaborative to improve immunization rates and determine best practices

Annual immunization campaign across States.

Adult Immunization Office Champions Project in development, which is focused on implementation of the Office Champions Quality Improvement model to increase adult immunization rates.

Conducting zip code-level mapping of immunization rates together with demographic, socioeconomic and other health data to identify disparities and design targeted interventions.

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Flu and You