The Virtual Immunization Communication (VIC) Network is a project of the National Public Health Information Coalition (NPHIC) and the California Immunization Coalition, funded through a cooperative agreement with the Centers for Disease Control and Prevention
2018-19 Seasonal Flu Recommendations and Communications Messaging
A nationwide ‘virtual’ immunization community of health educators, public health communicators and others who promote immunizations.
2018-19 Seasonal Flu Recommendations and Communications Messaging

Objectives

- Review of 2017-2018 influenza season overview
- Discuss CDC's influenza vaccine recommendations for 2018-2019 (including vaccine supply)
- Discuss communication goals and objectives for 2018-2019 season
- Upcoming 2018-2019 Flu season kickoff
Questions for Presenters?

- Ask questions using the Q&A window
- This webinar is being recorded
- Replays will be available

Frequently Asked Questions

1. Will I be able to get a copy of the slides after the webinar?
   - Yes – a copy will be posted on the VICNetwork.org site

2. Will I receive a copy of the webinar recording?
   - Yes – a copy will be posted on the VICNetwork.org site
Frequently Asked Questions

1. Will I be able to get a copy of the slides after the webinar?

   ✔ Yes – a copy will be posted on the VICNetwork.org site

2. Will I receive a copy of the webinar recording?

   ✔ Yes - a copy will be posted on the VICNetwork.org site
Alicia Budd, MPH
Epidemiology and Prevention Branch, Influenza Division
NCIRD, CDC
Kristen Nordlund,
Public Affairs Team Lead,
National Center for Immunization and Respiratory Diseases
Polling Question!
• 2017-18 Influenza Season Summary
• 2018-19 Influenza Vaccine Recommendations
• 2018-19 Influenza Vaccine Supply Projections

Alicia Budd, MPH
Influenza Division, CDC

September 17, 2018
2017-2018 Influenza Season:
Summary of Activity in the U.S.
Summary of 2017-18 Season

- High severity season
  - High levels of outpatient clinic and emergency department visits for ILI
  - High influenza-related hospitalization rates
  - Elevated and geographically widespread activity across the country for an extended period
- Activity began increasing in November and reached an extended period of high activity during January and February
- Influenza A(H3N2) viruses predominated overall
  - Influenza B viruses were reported more frequently than influenza A viruses from early March until mid-June.
- The majority of circulating viruses were similar to the cell-grown reference viruses representing the 2017-18 influenza vaccine viruses.
Percentage of Visits for Influenza-like Illness (ILI), 2017-2018 and Selected Previous Seasons
Influenza Positive Tests Reported to CDC by U.S. Clinical and Public Health Laboratories, 2017-2018 Season
Laboratory-Confirmed Influenza-Associated Hospitalizations, Cumulative Rate, 2017-2018 and Previous 5 Seasons
Laboratory-Confirmed Influenza-Associated Hospitalizations, Cumulative Rate, 2017-18 and Select Seasons, by Age Group
Morality Surveillance: 2017-2018 and Previous Seasons

- **Pneumonia and Influenza Mortality, National Center for Health Statistics**

- **Deaths in Children with Laboratory Confirmed Influenza**

![Diagram showing the number of influenza-associated pediatric deaths by week of death from 2014-2015 season to present.](diagram.png)
Season Severity Assessment – By Age Group and Season, 2003-2004 through 2017-2018

2017-18 was High Severity based on outpatient visits, hospitalizations, and deaths

Biggerstaff, et al Am J Epi 2018
## U.S. Influenza Vaccine Effectiveness Network: Vaccine Effectiveness, 2017-18

<table>
<thead>
<tr>
<th></th>
<th>Influenza positive</th>
<th>Influenza negative</th>
<th>Vaccine Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N vaccinated/Total (%)</td>
<td>N vaccinated/Total (%)</td>
<td>VE %</td>
</tr>
<tr>
<td>Any influenza</td>
<td>1296/3097 (42)</td>
<td>2969/5538 (54)</td>
<td>38</td>
</tr>
<tr>
<td>A/H3N2</td>
<td>813/1790 (45)</td>
<td>2969/5538 (54)</td>
<td>28</td>
</tr>
<tr>
<td>A/H1pdm09</td>
<td>96/326 (29)</td>
<td>2969/5538 (54)</td>
<td>64</td>
</tr>
<tr>
<td>B/Yamagata</td>
<td>327/917 (41)</td>
<td>2969/5538 (54)</td>
<td>41</td>
</tr>
</tbody>
</table>

* Multivariate logistic regression models adjusted for site, age, sex, race/ethnicity, self-rated general health status, days from illness onset to enrollment, and calendar time of illness onset
## Estimated Number of Influenza Illness Averted with Vaccination

<table>
<thead>
<tr>
<th></th>
<th>Averted Illnesses</th>
<th>Averted Medical Visits</th>
<th>Averted Hospitalizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11 to 2016-17</td>
<td>1.6 - 6.7 million</td>
<td>793,000 – 3.1 million</td>
<td>39,300 – 86,700</td>
</tr>
<tr>
<td>2016-17*</td>
<td>5.3 million</td>
<td>2.6 million</td>
<td>84,700</td>
</tr>
</tbody>
</table>

*An H3N2 predominant season with vaccine effectiveness similar to what was estimated for 2017-18.
Summer 2018

- Very low levels of virus and disease activity
- 14 novel influenza A virus infections
  - All variant viruses (influenza virus that typically circulates in pigs is detected in a person)
  - 1 H3N2v (IN)
  - 13 H1N2v – CA (6), MI (3), OH (4)
  - All have recovered from their illness
  - No ongoing human-to-human transmission
Sources of 2018 – 2019 Data

- Updated surveillance information is available each Friday
  - FluView, static report: https://www.cdc.gov/flu/weekly/
  - FluView Interactive, online application: https://www.cdc.gov/flu/weekly/fluviewinteractive.htm

- Vaccine effectiveness estimates
  - Advisory Committee on Immunization Practices (ACIP) meetings: https://www.cdc.gov/vaccines/acip/meetings/index.html
Prevention and Control of Seasonal Influenza with Vaccines, Recommendations of the ACIP – United States, 2018-19 Influenza Season
2018-19 Influenza Prevention and Control, ACIP Recommendations - Overview

- Published in MMWR August 24, 2018
- Format same as last season
  - MMWR publication focuses on recommendations
    - Selected references
    - Figure
    - Main tables
  - Supplemental materials
    - Background document with additional references
    - 4 page summary
    - https://www.cdc.gov/vaccines/hcp/acfip-recs/vacc-specific/flu.html
Some Abbreviations

- IIV = Inactivated influenza vaccine
- LAIV = Live attenuated influenza vaccine
- RIV = Recombinant influenza vaccine
- Prefixes:  
  - SD = standard dose
  - HD = high dose
  - a = adjuvanted
  - cc = cell culture-based
- Numeric suffixes (e.g., IIV3, RIV4) indicate trivalent or quadrivalent, respectively
- A few others:
  - ACIP = Advisory Committee on Immunization Practices
  - HA = Hemagglutinin
  - VE = Vaccine Effectiveness
Groups Recommended for Vaccination

- Routine annual influenza vaccination is:
  - **Recommended** for all persons ≥ 6 months of age who do not have contraindications.
  - **Particularly important** for:
    - Persons ≥6 months who at increased risk of complications and severe illness due to influenza virus infection
    - Contacts and caregivers of persons
      - <5 years of age
      - ≥50 years of age
      - With medical conditions that put them at higher risk for severe complications from influenza
Groups at Increase Risk for Severe Complications from Influenza

- Children < 5 years (<6 months cannot be vaccinated)
- Adults ≥ 50 years
- Persons with chronic pulmonary (including asthma), cardiac (except isolated hypertension), renal, hepatic, neurologic, hematologic or metabolic disorders
- Immunosuppressed persons due to any cause (i.e. medication or disease)
- Women who are or will be pregnant during influenza season
- Children <18 years receiving aspirin or salicylate-containing medications
- Residents of nursing homes and other long-term care facilities
- American Indians/Alaskan Natives
- Persons who are extremely obese (BMI ≥ 40)
2018-2019 ACIP Influenza Statement - Updates

- Influenza vaccine composition for 2018-19
- Live attenuated influenza vaccine (LAIV4) is an option
- Vaccines available for persons with egg allergy
- Two labeling changes for existing vaccines
2018-2019 Influenza Vaccine Composition

- Trivalent vaccines
  - A/Michigan/45/2015 (H1N1) pdm09–like virus
  - A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus (new)
  - B/Colorado/06/2017–like virus (Victoria lineage) (new)

- Quadrivalent vaccines
  - Above three strains plus
  - B/Phuket/3073/2013–like virus (Yamagata lineage)
ACIP LAIV4 Recommendations for 2018-19

- Can choose any licensed, age appropriate vaccine (IIV, RIV4 or LAIV4)
  - LAIV had not been recommended for 2016-17 or 2017-18
    - Low effectiveness against H1N1pdm09 viruses for children aged 2-17 yrs during 2013-14 and 2015-16
    - Thought due to poor fitness of the H1N1pdm09 virus in the vaccine
  - In February 2018, ACIP reviewed additional data
    - Two analyses of previous seasons’ data from observational studies
    - Manufacturer data on shedding and immunogenicity studies of new H1N1pdm09 vaccine virus indicating improved replicative fitness.
  - For 2018-19 - LAIV4 is again an option for influenza vaccination of persons for whom it is appropriate.
    - No U.S. vaccine effectiveness data yet on formulation with new H1N1pdm09 virus
ACIP LAIV4 Recommendations for 2018-19

- Difference in ACIP and American Academy of Pediatrics (AAP) recommendations:
  - ACIP makes no preferential recommendations for any one vaccine type when more than one is appropriate;
  - AAP recommends IIV as the primary choice for children.

- Recommendations share the same principle that influenza vaccination is an important preventive strategy for children.
Who *Shouldn’t* Receive LAIV4 (Contraindications)

- Persons aged <2 years or >49 years
- Labeled contraindications in package insert:
  - History of severe allergic reaction to any vaccine component* or to a previous dose of influenza vaccine (like other influenza flu vaccines)
    - *Note:* ACIP recommends vaccination of persons with egg allergy (this differs from FDA-approved labeling for most influenza vaccines)
  - Concomitant aspirin- or salicylate-containing therapy in children or adolescents (risk of Reye syndrome)
- In addition, ACIP recommends LAIV not be used for
  - Pregnant women
  - Immunocompromised persons
  - Children <5 with asthma or wheezing
  - Caregivers and contacts of persons requirement a protected environment
  - Persons who have received influenza antivirals within previous 48 hours
Precautions to Use of LAIV4

- Similar to other influenza vaccines:
  - Moderate or severe illness with or without fever
  - Guillain-Barré syndrome within 6 weeks following a previous dose of influenza vaccine

- Additional precautions specific to LAIV4
  - Asthma in persons aged 5 and older
  - Other medical conditions that predispose to increased risk of severe influenza illness e.g., other chronic pulmonary diseases; cardiovascular disease (excluding isolated hypertension); renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus);
Influenza Vaccination of Persons with Egg Allergy

- Mostly unchanged from last few seasons
  - Main change is that **LAIV4 is an option**
- Egg allergic persons can receive any licensed, recommended vaccine that is otherwise appropriate (IIV, RIV4, or **LAIV4**)
  - However, RIV4 not licensed for persons under 18 years of age
- For persons with a history of severe allergic reaction to egg (i.e., any symptom other than hives)
  - "The selected vaccine should be **administered in an inpatient or outpatient medical setting** (including but not necessarily limited to hospitals, clinics, health departments, and physician offices). Vaccine administration should be **supervised by a health care provider who is able to recognize and manage severe allergic conditions.**"
- No specific post-vaccination observation period recommended
  - However, per the ACIP General Best Practices guidelines, providers should consider observing all recipients of any vaccine for 15 minutes to avoid injury due to syncope
Licensure Changes

- **Afluria Quadrivalent (Standard-dose IIV4, Seqirus)**
  - Licensed in August 2016 - ≥18 years
  - August 2017 – *expanded to ≥5 years*
  - Can be administered via jet injector but only for ages 18 – 64 years

- **Fluarix Quadrivalent (Standard-dose IIV4, GSK)**
  - Previously licensed for ≥ 3 years
  - January 2018 – *expanded to ≥6 months*
  - One of three IIVs approved for children 6 – 35 months of age
  - Dose volume is the same for all ages (0.5mL)
Dosing Algorithm for Children 6 months through 8 years, 2018 - 2019

- Similar to last season
- If two cumulative doses received prior to July 1, 2018
  - Previous doses can be from different or non-consecutive seasons.
- If <2 doses received before July 1, 2018
  - Need two doses this season, given ≥4 weeks apart.
  - 2nd dose by the end of October, if possible.
Quick aside about influenza vaccines for 6- through 35-month olds

- Two potential points of confusion
  - Three licensed products, but the dose volumes differ
    - Fluarix Quadrivalent: 0.5mL
    - FluLaval Quadrivalent: 0.5 mL
    - Fluzone Quadrivalent: 0.25 mL
  - *Dose volume* is distinct from *number of doses* needed
    - A child aged 6 months through 8 years who needs 2 doses—
    - (for example, if a first-time vaccinee)—
    - and who gets 0.5mL FluLaval Quadrivalent for a first dose—
    - *Still* needs a second dose of influenza vaccine, ≥4 weeks later
Timing of Vaccination

- Vaccine should be offered by the end of October.
- Continue to offer vaccine as long as influenza is circulating and unexpired vaccine is available.
- Optimally, vaccination should occur before the onset of influenza activity in a community.
  - Specific start time cannot be predicted.
  - Balance concern for possible waning of vaccine induced immunity, unpredictable timing of the influenza season and programmatic considerations (e.g., missed opportunities, shorter vaccination window).
- Revaccination later in the season of persons who have already been fully vaccinated is not recommended.
There are Many Different Vaccine Options

- Multiple distinct products
- More than one might be appropriate for any given recipient
  - ACIP/CDC express no preferences for any one type of influenza vaccine over another, where more than one is appropriate and available.
  - Vaccination should not be delayed in order to obtain a specific product.
Influenza Vaccine Options, 2018-2019

- **Inactivated (IIV)**
  - Trivalent (IIV3)
    - Standard Dose
    - High Dose
    - Adjuvanted
  - Quadrivalent (IIV4)
    - Standard Dose

- **Recombinant (RIV4)**
  - Quadrivalent

- **Live Attenuated (LAIV4)**
  - Quadrivalent

- **Many brands**
- **Some with age indication down to 6 months (dose volume varies)**
- **High dose and adjuvanted are ≥ 65 yrs**
- **Intramuscular (jet injector option for one)**
- **≥ 18 years**
- **Intramuscular**
- **2 – 49 years**
- **Intranasal**
Vaccine Supply Projections, 2018-2019
National Influenza Vaccine Supply, 2018-19 Season

- Manufacturers have projected they will provide as many as 163 million to 168 million doses of influenza vaccine.
  - More than 80% will be quadrivalent.
    - Remaining will be trivalent including high dose and adjuvanted vaccines, and one brand of standard does inactivated vaccine.
  - More than 80% thimerosal free
    - Only multidose vials contain thimerosal
  - ~85% egg based
    - Remaining will be produced using cell based and recombinant technology.

- For more information on seasonal influenza vaccine supply and distribution.
  - https://www.cdc.gov/flu/about/qa/index.htm
Influenza Vaccine Doses Distributed in the U.S., 2007-08 to 2017-18
2018-19 Seasonal Influenza Recommendations and Communication Update

Kristen Nordlund
Public Affairs Team Lead, NCIRD
Flu Communication Landscape

**Partners and Stakeholders**

- Pharmacies
- Health Systems & Insurers
- Consumers
- State & Local Public Health
- Coalitions & Associations
- Trade & Industry

**CDC’s External Flu Communication**

- **Science, Surveillance, & Program**
  - MMWRs
  - External Scientific publications
  - FluView
  - VE data
  - Flu burden & burden averted data
  - ACIP Policy Notes
  - Vaccine coverage data
  - Vaccine supply info

- **Scientific & Technical Communication**
  - Technical Key Points
  - Vaccine Provider Training (i.e. storage & handling)
  - Clinician training & continuing education

- **Media, Partner, & Provider Communication**
  - [www.cdc.gov/flu](http://www.cdc.gov/flu)
  - Kick off Press Conference
  - Fight Flu Resources
  - Partner Toolkit
  - Lifespan Immunization Campaigns
  - Grantee emails
  - CDC-INFO
  - Social Media
  - Newsletters
  - Policymaker activity support
CDC’s Flu Communication Objectives

- Provide clear, consistent, and timely scientific, technical and programmatic information and communication resources to partners in support of their flu prevention and control activities

- Increase the number of healthcare providers making a strong flu vaccine recommendation

- Support healthcare providers that are already making flu vaccine recommendations to patients across the lifespan
CDC Plans for 2018-19 Flu Season

**External Communication Activities**
- Seasonal Flu Vaccination Campaign Kick-off: September 27
- National Influenza Vaccination Week: December 2-8
- Focus on reaching healthcare professionals
  - Fight Flu material updated and online
  - Website live with updated recommendations
  - Pilot new approaches, including “How I Recommend” videos
  - Continue to support flu messages and materials across CDC lifespan immunization campaigns
- Continue partner engagement, media relations strategies, and response to clinician and consumer inquiries

**Communication Research**
- Patient interviews to improve HCP vaccine recommendations
- Maternal clinician encounter observations during upcoming flu season
- Adult survey on health disparities
General HCP Outreach

- Ongoing social and digital media using CDC’s Twitter, CDC’s Flu Twitter, Facebook, LinkedIn, and Pinterest channels targeting clinicians of all types
- Paid media campaign reaching general HCPs through trade organizations (American Medical Association (AMA) and American Nurses Association (ANA)), LinkedIn, and ad networks
- Fight Flu Toolkit for all HCPs includes appointment reminder email template for practices to customize based on patient population, with information for high-risk groups, such as older adults, pregnant women, young children, and adults with chronic medical conditions
- Medscape Expert Commentary sharing the official influenza vaccination recommendations for the 2018 – 2019 flu season and including information on the importance of a HCP vaccination recommendation
Digital Toolkit: “Campaign in a Box”

One-stop-shop for seasonal flu vaccination materials

- Important Dates and Events
- Messages to Share (sample social media and new:
- Print Ready Materials (posters and fact sheets)
- Social Media Images and GIFs
- Web material (badges, widgets, microsite)
Campaign Element: Partnership Engagement

- Share CDC key points and weekly updates
- Toolkit available with sample social media, newsletter content, and digital assets
- Access to a suite of both print and digital offerings that partners can use
- Increase visibility of partners’ influenza vaccine promotion activities
- Provide CDC influenza subject matter experts
- Web page tailored for partners
- Build capacity and sustainability
The flu vaccine saves lives in children.
The flu vaccine protects you and your baby.
The flu vaccine is an important part of managing your chronic disease.
The flu vaccine is part of your healthy lifestyle.
Lifespan Campaign - Tactics

6 months and older

- Children 6 months-11 years
- Teens & Young Adults
- Pregnant Women
- Adults w/ Chronic Conditions
- Adults (Otherwise Healthy)
- Aging Adults 50-64
- Older Adults 65+
- Health Care Providers

Print material for parents, schools, and HCPs
Ready Wrigley Activity book
Cooperative Agreement (AAP)
Audience profiles (HCP and Consumer)

College health center material
Digital Media Infographics

Print materials for moms, families
Digital ads
Infographics
Digital Media
Contributed articles
Paid Media
Cooperative Agreement

Diabetes
Infographic
Digital Media
Partnerships with diabetes organizations
Targeted print materials
Contributed articles
Paid media

Workplace/Business toolkit
Digital Media
Infographics
Messaging to caregivers
Print materials

Targeted print material
External media placement
Sandwich generation messaging
Audience profiles (HCP and Consumer)
Digital Media
Targeted print material
Vaccine option info
Audience profiles (HCP and Consumer)

Recommendation materials
Inter-agency partnerships
Professional organization partnerships
Medscape Commentaries
“How I Recommend” Videos
Lifespan Campaign - Material Examples

- General
- Health Care Providers
- Adults w/ Chronic Conditions
- Pregnant Women

6 months and older

Every year hundreds of thousands of people in the U.S. are hospitalized from flu-related illness. Get a flu vaccine now.

Recommend a flu vaccine to your patients. cdc.gov/flu

Vaccinate your patients. FIGHT FLU cdc.gov/flu

Are you at risk for serious complications from flu?

Pregnant? You need a flu shot!

Talk to your ob-gyn or midwife today. FIGHT FLU cdc.gov/flu

LEARN MORE
Take 3 Messaging

- Take 3 actions to fight the flu
- Take everyday preventive actions to help stop the spread of flu viruses!
- Take antiviral drugs if your doctor prescribes them!
- Get yourself and your family vaccinated!
Misconceptions

Q: Last year I got a flu shot and then I started feeling sick. The flu vaccine gave me the flu!
   – No, a flu shot cannot cause flu illness.
   – Flu vaccines given with a needle are made one of two ways: a) the flu vaccine contains viruses that have been ‘inactivated’ and aren’t infectious, or b) with no flu vaccine viruses at all (i.e. the recombinant flu vaccine).
   – The most common side effects from the influenza shot are soreness, redness, tenderness or swelling where the shot was given. Low-grade fever, headache and muscle aches also may occur.

Q: Well, I still got sick after getting the flu vaccine. So …
   – You many have come down with another type of respiratory viruses besides flu such as rhinovirus.
   – You may have been exposed to flu viruses shortly before getting vaccinated or during the two-week period after vaccination that it takes the body to develop immune protection.
   – You could have been exposed to a flu virus that is very different from the viruses the vaccine is designed to protect against.
   – The final explanation for experiencing flu symptoms after vaccination is that the flu vaccine can vary in how well it works and some people who get vaccinated may still get sick.

For more myths and misconceptions, visit https://www.cdc.gov/flu/about/qa/misconceptions.htm
Key Messages for the Public

- Flu season is coming. And, as we saw last season, it can be very serious – even deadly.

- Getting an annual flu vaccine is the single best way to protect yourself and your loved ones.

- You may get sick even if you get vaccinated. But the vaccine has many benefits.

- The flu vaccine can:
  - Save children’s lives
  - Reduce the risk of hospitalizations
  - Be an important part of managing a chronic health condition, like heart disease or diabetes
  - Help you get back on your feet sooner if you do get sick

- There are many different flu vaccine options. Talk to your healthcare provider about which vaccine is right for you.
Questions?
Kristen Nordlund – knordlund@cdc.gov
Questions and Answers

abudd@cdc.gov

knordlund@cdc.gov
Final Thoughts?
2018-2019 Seasonal Flu Resources

Frequently Asked Flu Questions 2018-2019 Influenza Season:

FluView Interactive:
https://www.cdc.gov/flu/weekly/fluviewinteractive.htm

Make a Strong Recommendation:
https://www.cdc.gov/flu/professionals/vaccination/flu-vaccine-recommendation.htm
Resources

Centers for Disease Control and Prevention
www.cdc.gov/vaccines

National Public Health Information Coalition
www.nphic.org
Please Complete Evaluation
Connect with the VICNetwork…

e-mail: info@VICnetwork.org

Website www.VICNetwork.org
Tweet and Follow

Twitter  @VICNetwork

Facebook  VICNetwork
Thank you for your support and your participation!

National Public Health Information Coalition
www.nphic.org

California Immunization Coalition
www.immunizeca.org