

Will Influenza be Back? A Global Update and Strategies for Avoiding the “Twindemic”



Litjen (L.J) Tan, MS, PhD
Chief Policy and Partnerships
Officer, Immunization Action
Coalition

Co-Chair, National Adult and
Influenza Immunization
Summit

Disclosures

- I have no conflicts of interest.
- I do NOT intend to discuss an unapproved or investigative use of a commercial product/device in my presentation

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- The opinions expressed in this presentation are solely those of the presenter and do not necessarily represent the official positions of the Immunization Action Coalition, or the National Adult and Influenza Immunization Summit

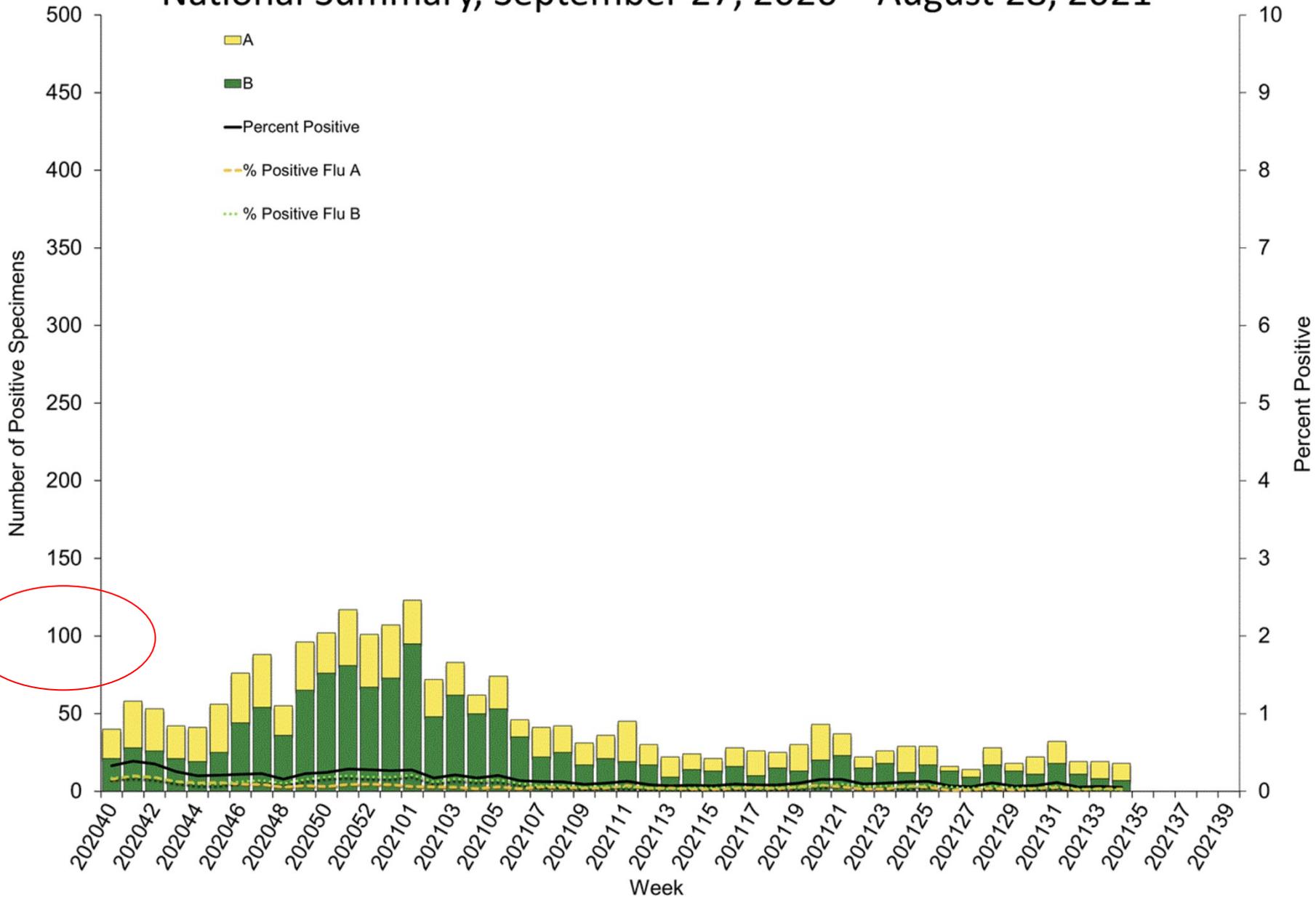
Outline

- Review 2020-2021 influenza season activity and vaccination coverage rates
- Discuss influenza vaccine effectiveness
- Describe ACIP and CDC influenza vaccination recommendations for 2021-2022 influenza season
- Discuss the impact of co-circulating influenza and COVID-19 disease during the upcoming influenza vaccination season
- Summarize CDC's 2021-2022 messaging for influenza

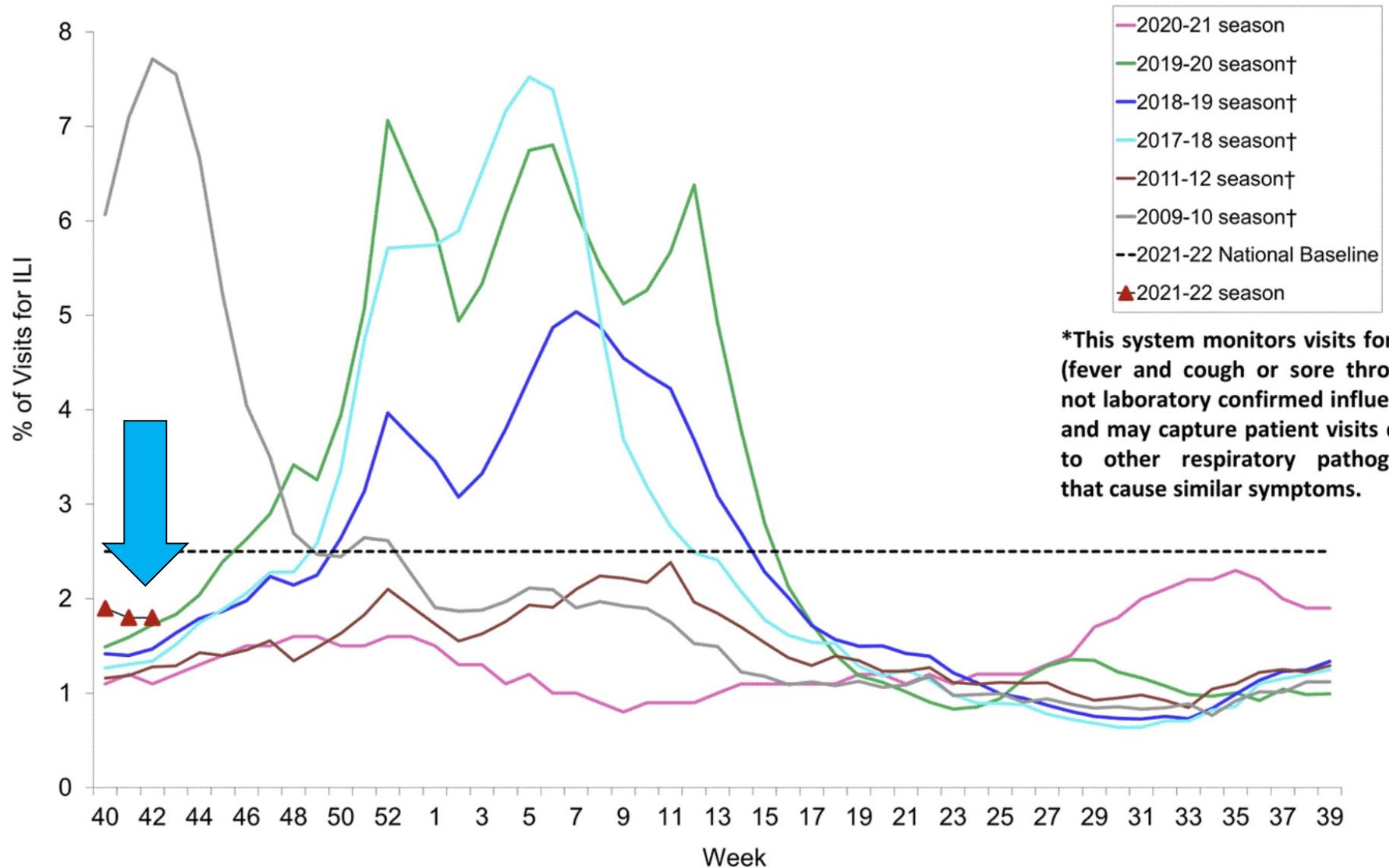
The 2020-2021 Influenza Season

“Season, what season?”

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, September 27, 2020 – August 28, 2021



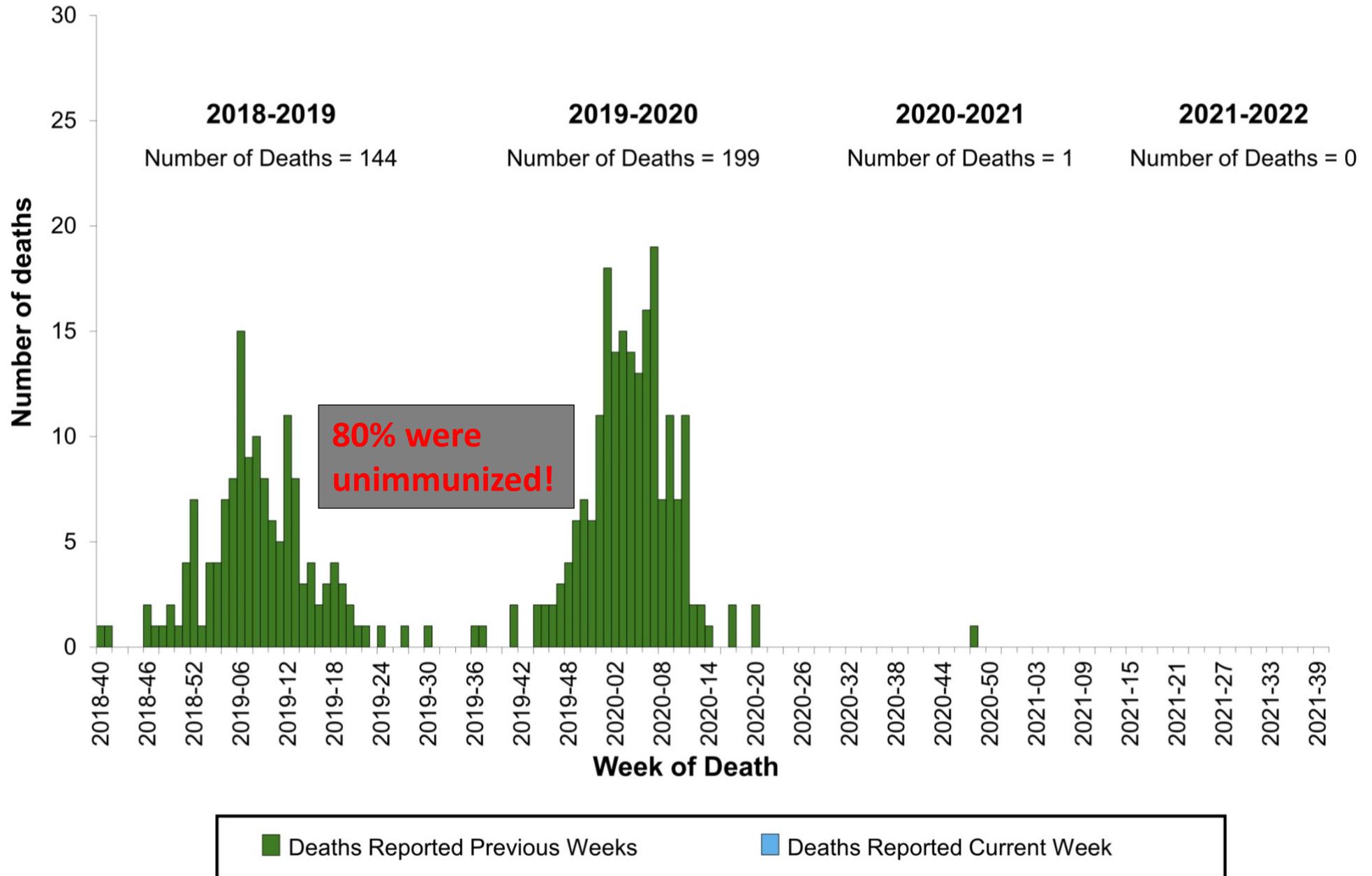
Percentage of Visits for Influenza-like Illness (ILI) Reported By The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2021-2022 and Selected Previous Seasons



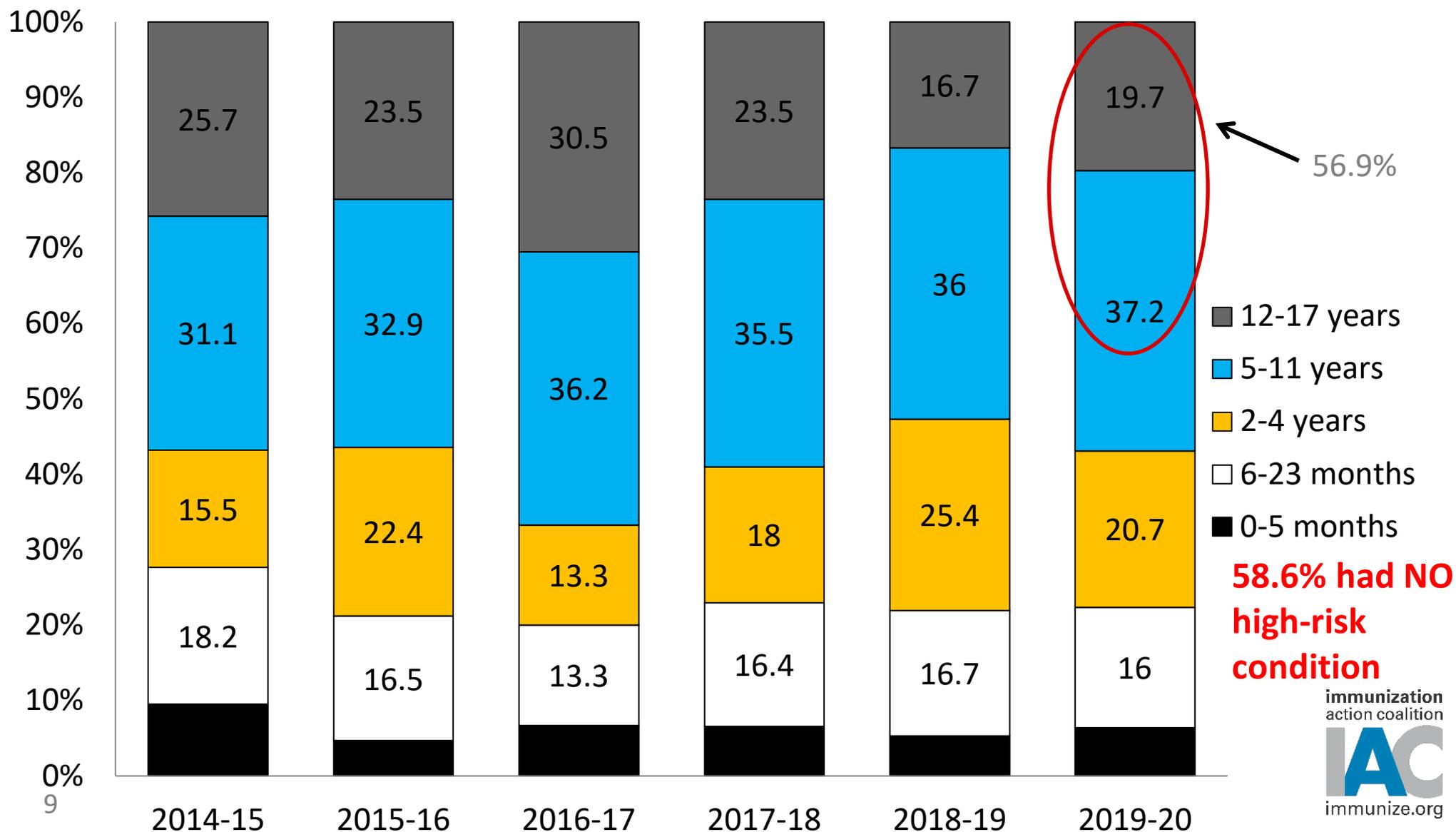
†These seasons did not have a week 53, so the week 53 value is an average of week 52 and week 1.

* Effective October 3, 2021 (week 40), the ILI definition (fever plus cough or sore throat) no longer includes “without a known cause other than influenza

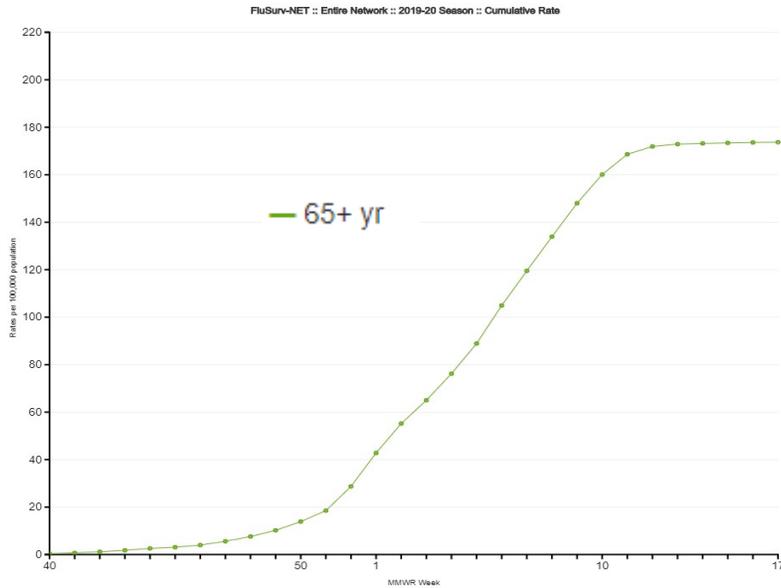
Influenza-Associated Pediatric Deaths by Week of Death, 2018-2019 season to 2021-2022 season



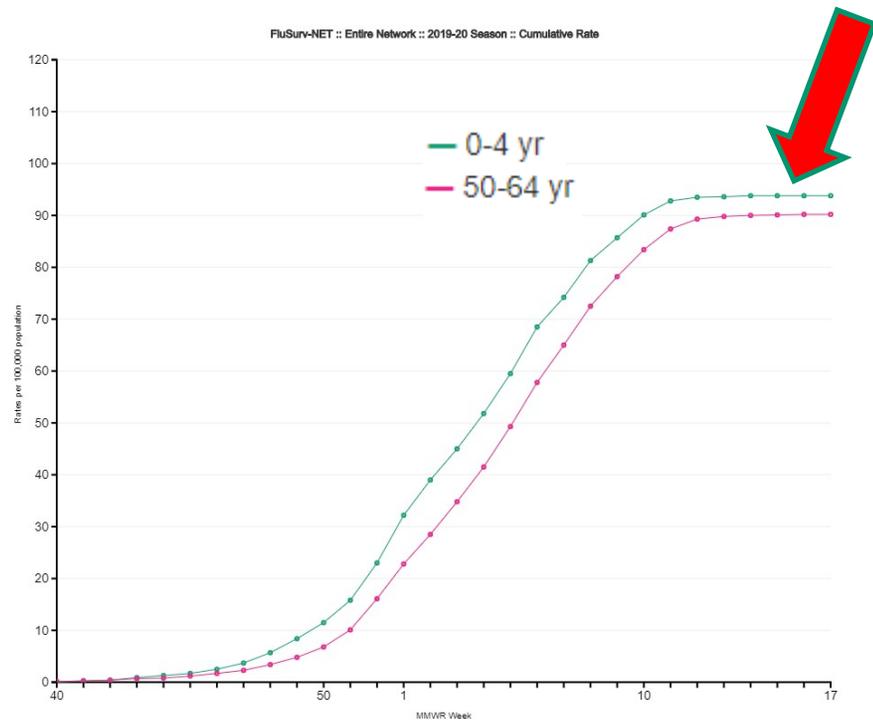
Influenza-Associated Pediatric Deaths by Age Group (percent of total deaths)



2019 – 2020 Hospitalization Rates...



65 + years
Cumulative Rate: 173.7/100,000



0-4 years
Cumulative Rate: 93.8/100,000

50-64 years
Cumulative Rate: 90.2/100,000



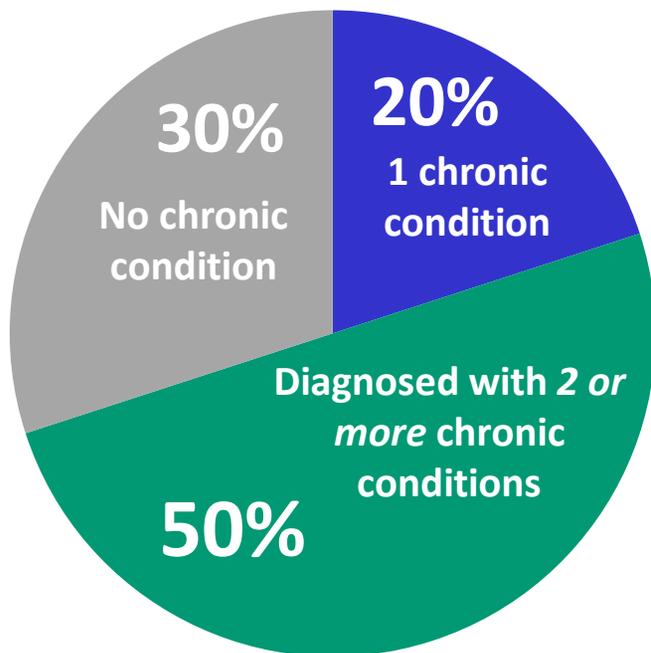
5-17 years
Cumulative Rate: 24.0/100,000

18-49 years
Cumulative Rate: 34.4/100,000

Prevalence of Chronic Conditions and Their Association With Influenza Hospitalizations in Adults 50 Years of Age and Older

Prevalence of Chronic Conditions

US Adults 50-64 Years of Age¹



Americans 50 years of age and older are a priority group for influenza immunization.²

- In a study covering the 2005-2006, 2006-2007, and 2007-2008 influenza seasons, >80% of adults hospitalized with lab-confirmed influenza had 1 or more underlying medical condition; half had 2 or more conditions³
- In the 2016-2017 influenza season, 94.2% of hospitalized adult patients with influenza had at least 1 underlying medical condition⁴

References: 1. CDC, AARP, American Medical Association. <https://www.cdc.gov/aging/pdf/promoting-preventive-services.pdf>. Accessed March 1, 2018. 2. CDC. <https://www.cdc.gov/flu/protect/whoshouldvax.htm>. Accessed March 1, 2018. 3. Dao CN, et al; Emerging Infections Program Network. *J Infect Dis*. 2010;202(6):881-888. 4. CDC.

<https://www.cdc.gov/flu/weekly/weeklyarchives2016-2017/Week20.htm>. Accessed March 1, 2018.

Influenza and Cardiovascular Disease

- Incidence of admissions for acute myocardial infarction was six times as high during the 7 days after laboratory confirmation of influenza infection¹. 12% of >80,000 adults hospitalized with influenza, almost 12% of patients had an acute cardiovascular event²
- A study in VA patients showed that 24% of 600 VA patients who tested positive for influenza had acute cardiac injury and 80% occurred within 3 days of the influenza diagnosis²
- A systematic review showed consistent associations between influenza and acute myocardial infarction, with weaker evidence of an association with cardiovascular death³
- Acute infections, such as influenza, have been associated with cardiovascular events, and it is hypothesized to be due to triggering of inflammation that elicit cardiovascular events⁴

1. Kwong JC, et al. *N Engl J Med* 2018; 378:345-353.

2. Chow et al. *Annals of Internal Medicine* 2020;173:605-613.

3. Ludwig A, et al. *BMC Cardiovasc Disord*. 2015 Sep 30;15:109. doi: 10.1186/s12872-015-0095-0.

4. Warren-Gash C, et al. *Lancet Infect Dis*. 2009 Oct;9(10):601-10.

5. Santos-Gallego CG, et al. *JAHA* 2018; 7(22):e011175.

Influenza and Diabetes

- People with diabetes experienced more hyperglycemic events, and substantial increases in pneumonia, sepsis, and coronary heart disease up to 4 weeks after an influenza claim, as compared to a non-influenza period in the same year¹
- People with diabetes are 3-6 times more likely to be hospitalized during influenza epidemics²
- People with diabetes have a much higher rate of death associated with an influenza infection³
- In recent influenza seasons, people with diabetes account for 30% of adult hospitalizations⁴
- Influenza vaccination recommended by the World Health Organization for high risk patients with diabetes

1. Samson SI, Lee W-N, Quisel T, et al. Diabetes. 2018;67(Supplement 1):1616.

2. Bouter KP, Diabetes Res Clin Pract 1991;12:61-8. Allard R, Diabetes Care 2010;33:1491-3.

3. <https://www.gov.uk/government/publications/influenza-the-green-book-chapter-19> (p4).

4. <https://www.cdc.gov/flu/highrisk/diabetes.htm>.

Summary of Influenza Activity 2020-2021

- What influenza?
 - NOT because of reduced testing.
- Impact of social distancing measures, masking, potentially increased vaccination rates, improved hand hygiene and infection control

The 2020-2021 Influenza Season – Vaccination Coverage

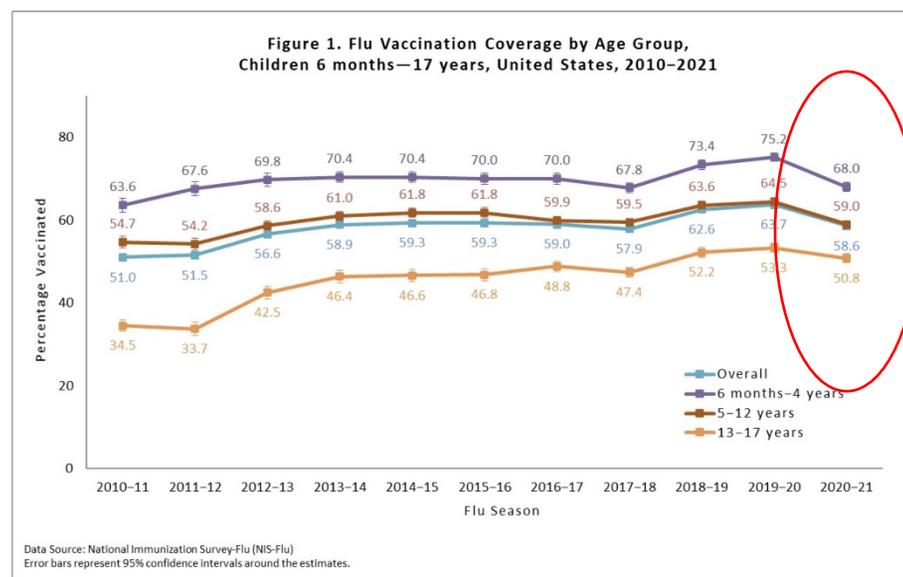
Healthy People 2030 Objective for
Influenza: Increase the proportion of
persons who are vaccinated annually
against seasonal influenza

Target: 70.0 percent

2020-2021 Pediatric Influenza Vaccination Coverage*

- 58.6% of all children 6 months through 17 years of age vaccinated, (-5.1% from previous season)
- 68.0% of children 6 months to 4 years vaccinated, (-7.2% from previous season)
- 55.8% of children 5 to 12 years vaccinated, (-5.5% from previous season)
- 50.8% of children 13 to 17 years vaccinated (-2.5% from previous season)

*<https://www.cdc.gov/flu/fluview/coverage-2021estimates.htm>



2020-2021 Adult Influenza Vaccination Coverage*

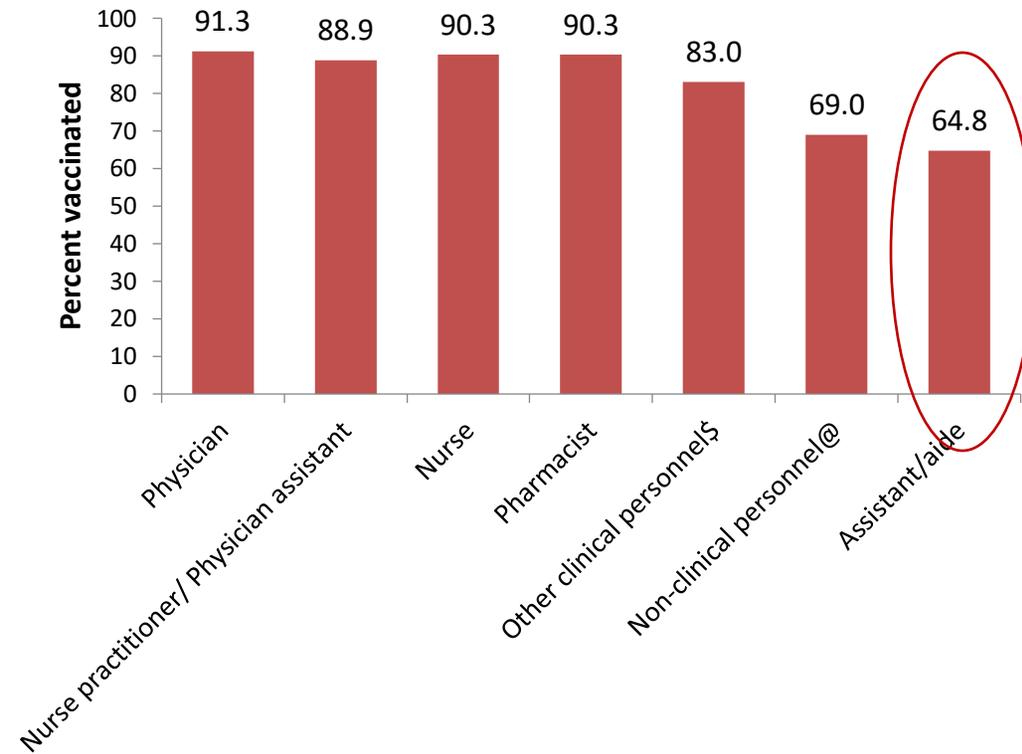
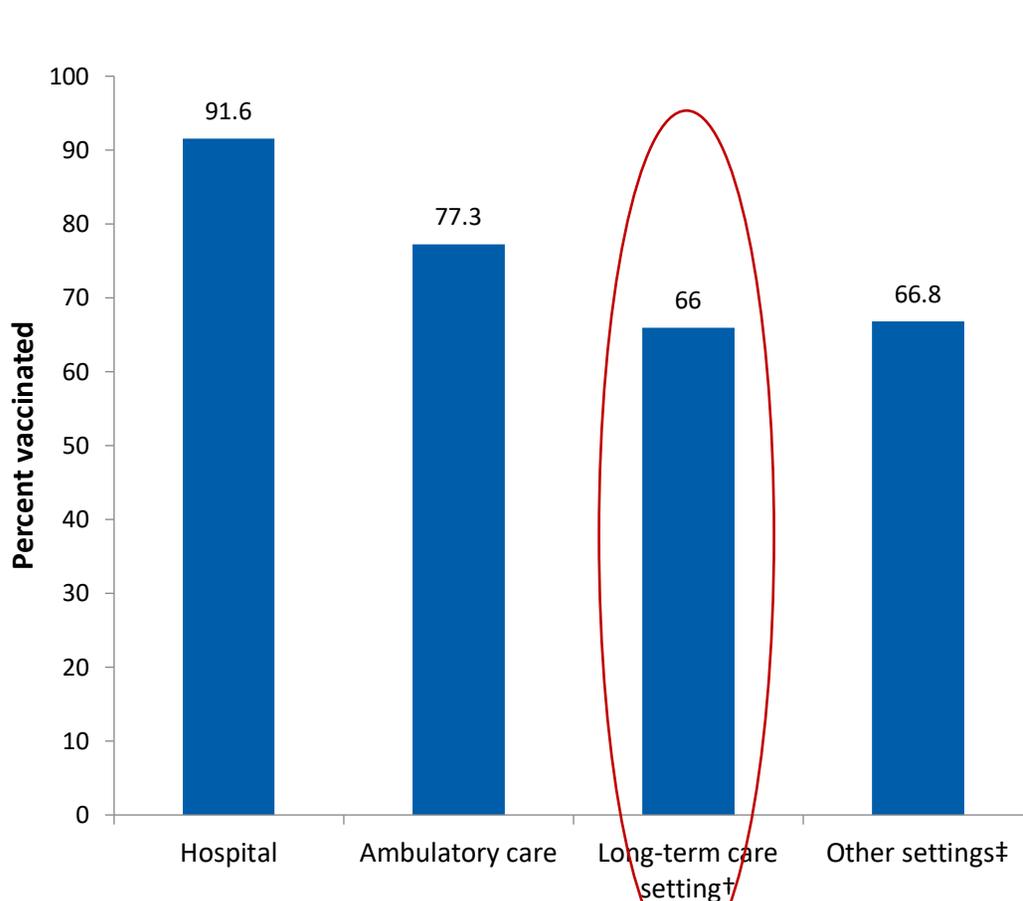
- 50.2% of all adults over 18 years of age vaccinated (+1.8% over from season)
- 75.2% of those over 65 years of age vaccinated (+5.4% over from season)
- 54.2% of adults between 50 -64 years of age vaccinated (+3.6% over from season)
- Only 43% of adults 18-64 years of age vaccinated (+0.7% from previous season)
 - Only 51% of adults 18-64 years of age with at least one high-risk medical condition vaccinated (-0.4% from previous season)

¹⁸ *<https://www.cdc.gov/flu/fluview/coverage-2021estimates.htm>

The Healthcare Worker in Influenza Immunization

- Protecting the patients
- Protecting themselves and their families
- Role modeling the importance of influenza vaccination to their patients

2020-2021 Influenza Vaccination Coverage – Healthcare Personnel[#]



[#] https://www.cdc.gov/flu/fluview/hcp-coverage_1920-21-estimates.htm

[†] Nursing home, assisted living facility, other long-term care facility, home health agency or home health care.

[‡] Settings other than hospitals, ambulatory care setting, or long-term care facilities; includes dentist office or dental clinic, pharmacy, EMS, and other settings where clinical care or related services was provided to patients.

^{\$} Allied health professional, dentist, technician, or technologist.

[@] Administrative support staff or manager and nonclinical support staff (including food service workers, housekeeping staff, maintenance staff, janitor, and laundry workers).

Impact of Employer Policy on Healthcare

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Influenza Vaccination Honor Roll

Long-Term Care / Assisted Living Honorees

AL	AK	AR	AZ	CA	CO	CT	DC	DE	FL	GA	HI
ID	IL	IN	IA	KS	KY	LA	ME	MD	MA	MI	MN
MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH
OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA
WV	WI	WY	U.S. Territories								

Percent Vaccinated

There are currently 291 Long-Term Care / Assisted Living organizations on the Influenza Vaccination Mandates Honor Roll.

[Click here](#) to view the entire Honor Roll.

IAC recognizes stellar examples of facilities and organizations that have influenza vaccination mandates for their healthcare personnel (HCP), including those working in long-term care facilities (LTCFs). The best way to prevent transmission of influenza to patients and residents is to mandate vaccination of healthcare personnel. The Influenza Vaccination Honor Roll represents the champions who have taken the lead in mandating influenza vaccination within their facilities.

To be included in this honor roll, your facility's mandate must require influenza vaccination for employees and must include serious measures to prevent transmission of influenza from unvaccinated workers to patients/residents. Such measures might include a mask requirement or reassignment to non-patient-care duties.

Who's on the Honor Roll?



View the entire honor roll — approximately 1000 organizations are now enrolled.

Rate

➔ Position Statements
Policies from leading health organizations on mandatory influenza vaccination



Apply for the Influenza Vaccination Honor Roll

Fill out this online form to tell IAC about influenza vaccination mandates in your healthcare setting

✱ [Apply Now](#) ✱

American Academy of Pediatrics (AAP) Policy Statement: Influenza Immunization for All Health Care Personnel: Keep It Mandatory
The purpose of this statement is to reaffirm the American Academy of Pediatrics'™ support for a mandatory influenza immunization policy for all health care personnel. With an increasing number of organizations requiring influenza vaccination, coverage among health care personnel has risen to 75% in the 2013 to 2014 influenza season but still remains below the Healthy People 2020 objective of 90%. Mandatory influenza immunization for all health care personnel is ethical, just, and necessary to improve patient safety. It is a crucial step in efforts to reduce health care associated influenza infections.

Vaccinating Healthcare Personnel
National Adult and Influenza Immunization Summit

Toolkits
A Toolkit for Long Term Care

* https://www.cdc.gov/flu/fluview/hcp-coverage_1920-21-estimates.htm

2020-2021 Influenza Vaccination Coverage in Healthcare Personnel - Summary

- 75.9% vaccinated as determined by internet panel surveys, 5% points lower than the previous season data.
- Long-term care facilities had lower coverage (66.0%) than other facility types (hospitals at 91.6%)
- Higher vaccination coverage among HCP was associated with employer vaccination requirements (95.9%) than among those whose employer did not require vaccination (46.0%)

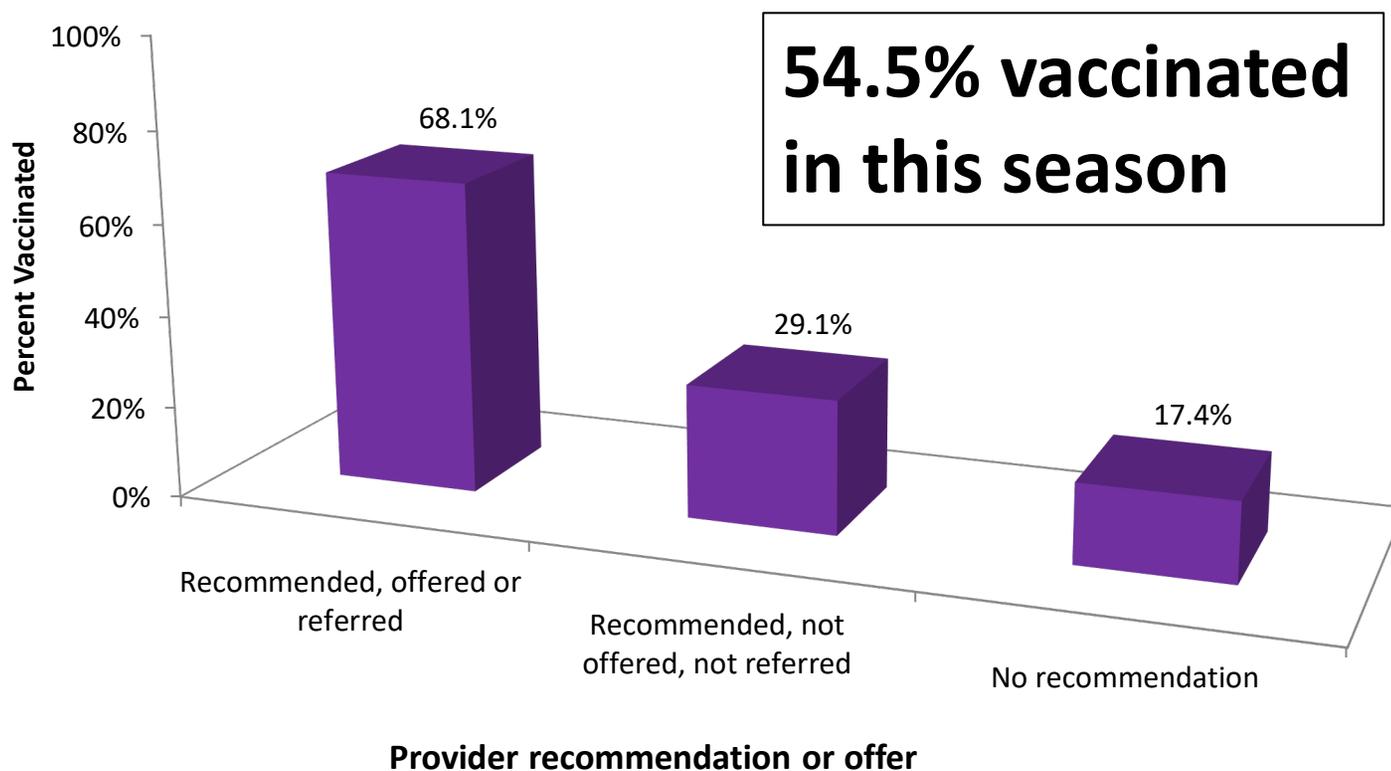
2020-2021 Influenza Vaccination Coverage – Pregnant Women*

- 54.5% vaccinated
- Of the pregnant women who reported visiting a doctor or other medical professional at least once before or during pregnancy,
 - 71.6% reported receiving a recommendation, and offer or referral, for flu vaccination from a doctor or other medical professional
 - But nearly one-third of these women remained unvaccinated against flu
 - 8.5% received only a recommendation for and no offer of flu vaccination
 - 20.0% did not receive a recommendation for or an offer of flu vaccination

* Internet Panel Survey, United States, March 31–April 16, 2021, among women aged 18–49 years who reported being pregnant anytime October 2020–January 2021

Influenza Vaccination Among Pregnant Women by Provider Recommendation or Offer of Vaccination, April 2021*

Influenza vaccination coverage before and during pregnancy among women pregnant any time October 2020–January 2021, by provider recommendation or offer



* Internet Panel Survey, United States, March 31–April 16, 2021, among women aged 18–49 years who reported being pregnant anytime October 2020–January 2021.

Impact of influenza on pregnant women¹

- Up to 4X increased risk of hospitalization, especially in third trimester, and for those with co-morbid conditions*
- Up to 8X increased risk for influenza-associated complications, including death, particularly for those with co-morbid conditions**
- Increased risk for influenza-associated complications among postpartum women
 - Risk highest during the first postpartum week

* Chronic cardiac disease, chronic pulmonary disease, diabetes mellitus, chronic renal disease, malignancies, and immunosuppressive disorders

** Preexisting diabetes mellitus, pulmonary disease that included asthma, heart disease, renal disease, and anemia

1. Rasmussen, S.A., et al. 2012. American Journal of Obstetrics & Gynecology; 207(3): S3 - S8.

Some coverage thoughts

- Influenza vaccination coverage appears to still be well below HP2030 target
 - Adult coverage rates continue to lag 😞
 - First drop in the pediatric population, impact of COVID-19? 😞
 - Coverage in the 65 years and older population improved... 😊
 - Coverage in the 18-64 years of age high risk adults unacceptably low... 😞
 - Coverage in pregnant women needs to be sustained and improved; a strong provider recommendation makes a difference (??)
 - HCW coverage likely sustained, what about LTCF? (??)

A Diversion – Don't Forget Adult Immunizations

Burden of Adult Vaccine-preventable Disease Among U.S. Adults

- Streptococcus pneumoniae¹
 - Pneumococcal Pneumonia ~ 400,000 hospitalizations per year
 - Up to 36% of adult community-acquired pneumonias
 - Pneumococcal Bacteremia ~ 12,000 cases per year
 - Pneumococcal Meningitis ~ 3,000–6,000 cases per year
- Pertussis²
 - 19,000 total reported cases 2019
 - 4,400 among adults 20 years of age & older

1. <https://www.cdc.gov/vaccines/pubs/pinkbook/pneumo.html>.
2. <https://www.cdc.gov/pertussis/downloads/pertuss-surv-report-2019.pdf>.

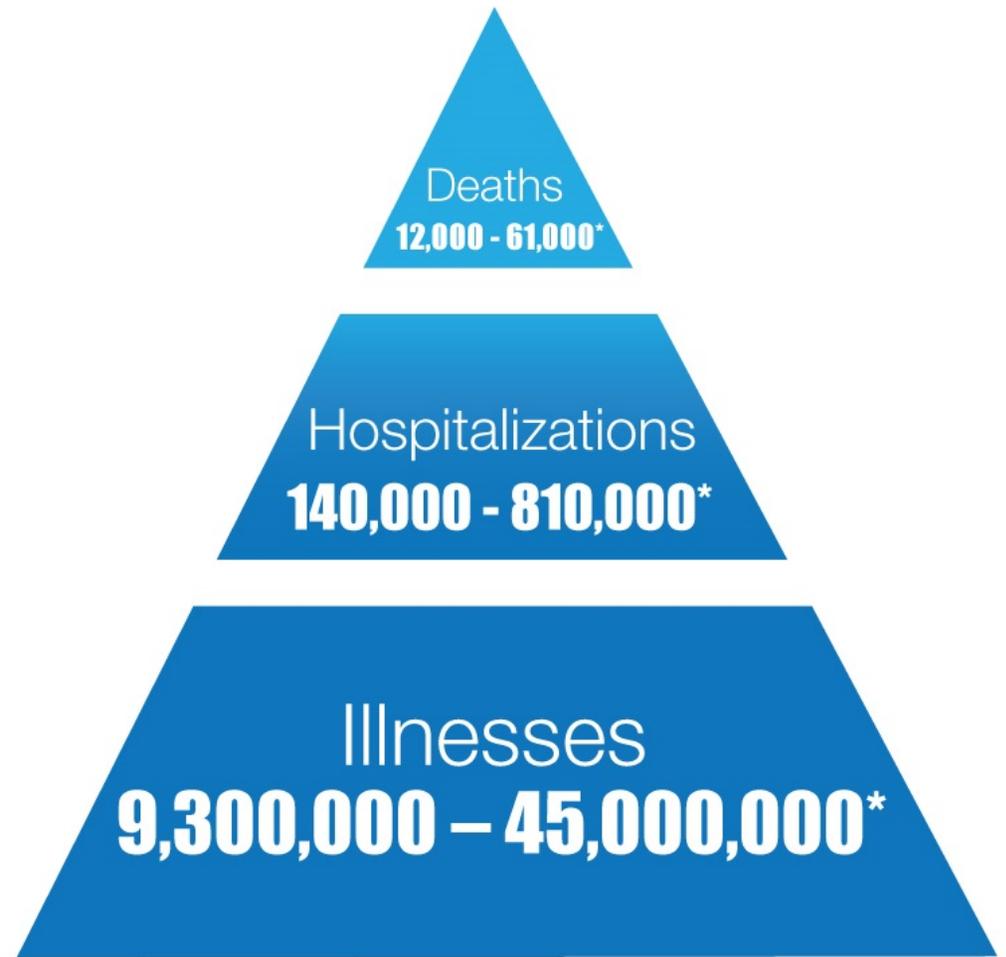
Burden of Adult Vaccine-preventable Disease Among U.S. Adults

- Hepatitis B¹
 - 20,700 estimated new infections in 2019
 - 80% among adults 30-59 years of age
- Zoster²
 - 1 million cases per year - lifetime risk 32%
- Measles³
 - California/multi-state 2015 outbreak, 55% of infections were in adults 20 years of age and older

1. CDC. Viral Hepatitis Surveillance United States. www.cdc.gov/hepatitis/statistics/2016surveillance/pdfs/2016hepsurveillancerpt.pdf
2. <https://www.cdc.gov/pertussis/downloads/pertuss-surv-report-2019.pdf>.
3. Morbidity and Mortality Weekly Report. April 17, 2015 / 64(14);373-376

Burden of Influenza 2010-2020*

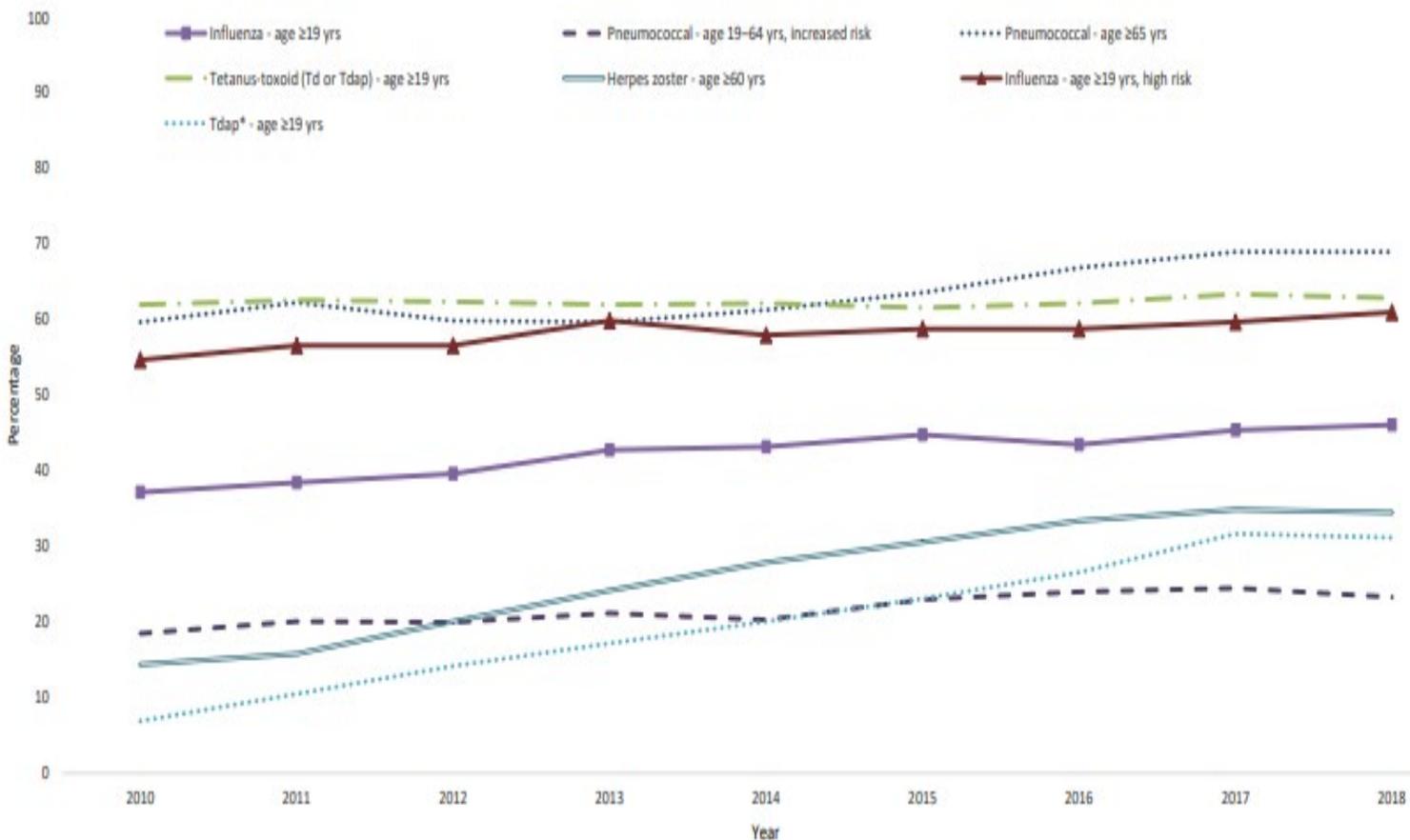
- From 2010-2020, adults 65 years and older accounted for:
 - 45-67% of influenza-related hospitalizations
 - 62-87% of influenza-related deaths



*The top range of these burden estimates are from the 2017-2018 flu season. These are preliminary and may change as data are finalized.

Routinely recommended vaccines for adults

Routinely recommended vaccines for adults have historically low uptake, leaving adults vulnerable to vaccine-preventable illness, disability and death.



2018 NHIS Estimates

Flu 65+ = 70%

Flu 18-64 = 42%

Pneumococcal 65+ = 69%

Pneumococcal high risk = 23%

Zoster 60+ = 34.5%

Td/Tdap past 10 yrs = 59%

HPV 19-26 yo = 53%

Hep A 19+ = 12%

Hep A liver dis. = 16%

Hep B 19+ = 30%

Hep B liver dis. = 33%

Call To Action – Adult Immunization rates must be improved!

- Routinely recommended vaccinations have fallen during the COVID-19 pandemic, impacting already low adult vaccination rates.

Impact of the COVID-19 pandemic on immunization coverage rates

Impact of the COVID-19 Pandemic on Adult HPV, Pneumococcal, and Zoster Vaccinations – Mawuli Nyaku, DrPH, MBA, MPH, (Merck)

<https://www.izsummitpartners.org/2021-07-15/#toc3>.

The COVID-19 Pandemic: Impact on US Adolescent and Adult Vaccine Utilization Across Markets – Loren Becker (Avalere Health)

<https://avalere.com/insights/updated-analysis-finds-sustained-drop-in-routine-vaccines-through-2020>.

National Adult and Influenza Immunization Summit (NAIIS) Call to Action*

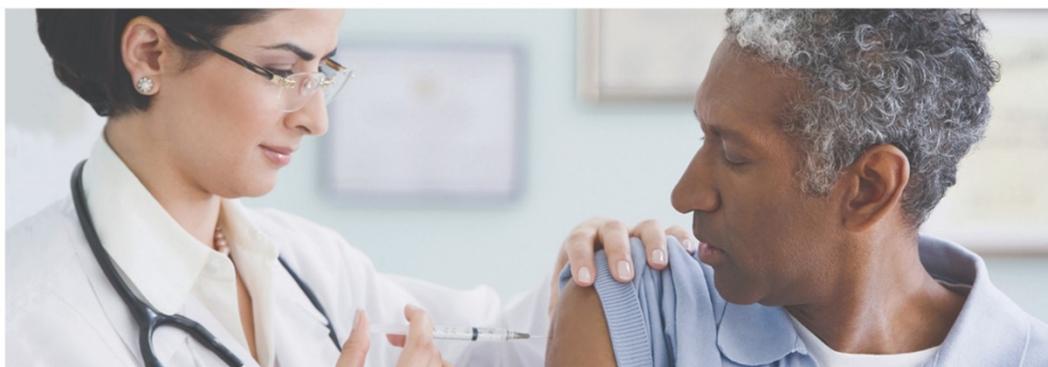


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A Call to Action to Protect All Adults from Vaccine-Preventable Disease and Disability



Majority of U.S. Adults Are Missing Routine Vaccinations

Call to Action to Protect All Adults from Vaccine-Preventable Disease and Disability

Click below to add your organization's support of the Call to Action

Support the Call to Action

Organizations Supporting Call to Action

- ✦ American Academy of PAs (AAPA)
- ✦ American College of Physicians (ACP)
- ✦ American Immunization Registry Association (AIRA)
- ✦ American Medical Association (AMA)
- ✦ American Medical Group Association

*<https://www.izsummitpartners.org/call-to-action-adult-immunizations/>.

National Adult and Influenza Immunization Summit (NAIIS) Call to Action*



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30329-4027

August 23, 2021

Majority of U.S. Adults Are Missing Routine Vaccinations

A Call to Action to Protect All Adults from Vaccine-Preventable Disease and Disability

Dear Colleague,

Vaccinations are critical components of routine healthcare for adults. They provide protection against severe illness, disability, and death from 15 different infectious diseases such as influenza, pneumococcal disease, herpes zoster (shingles), hepatitis A, hepatitis B, HPV-related cancers, tetanus, and pertussis (whooping cough). The enormous impact of COVID-19 vaccines on reducing illnesses, hospitalizations, and deaths further demonstrates the immense value of vaccines.

Despite the tremendous benefit of vaccines, at least 3 out of every 4 adults are missing one or more routinely recommended vaccines. Given the recognized health benefits of adult vaccinations and low rates of adult vaccination, made worse by the COVID-19 pandemic, the National Adult and Influenza Immunization Summit (NAIIS) members call on providers across the healthcare spectrum to take actions to improve vaccination of adults.

Specifically, NAIIS calls on all clinicians and other healthcare providers, such as pharmacists, occupational health, and clinical subspecialists, to follow the National Vaccine Advisory Committee's (NVAC) Standards for Adult Immunization Practice including:

- Assess the vaccination status of patients at all clinical encounters, even among clinicians and other providers who do not stock vaccines.
 - Utilize a jurisdiction's immunization information system (IIS) to view patients' prior vaccinations to support vaccine needs assessment.
- Identify vaccines patients need, then clearly recommend needed vaccines.
- Offer needed vaccines or refer patients to another provider for vaccination.
- Document vaccinations given, including in the jurisdiction's IIS.
 - Many electronic health record (EHR) systems already link to jurisdictions' IISs – providers should check with their EHR administrators.
 - Providers not already utilizing an IIS should contact their local or state immunization program to inquire about enrolling in their jurisdiction's IIS.
- Measure vaccination rates of providers' patient panels; making changes to clinic patient flow and taking other steps to address barriers to patient vaccination.

Taking these actions will help protect adults across the U.S. against preventable illness, disability, and death.

Resources for implementation of the Standards for Adult Immunization Practices can be found at <https://www.cdc.gov/vaccines/hcp/adults/for-practice/standards/index.html>.

For a list of NAIIS members supporting the Standards, visit <https://www.izsummitpartners.org/adult-immunization-standards/>.

Standards for Adult Immunization Practice

- **Assess** the vaccination status of patients at all clinical encounters
- **Identify** vaccines patients need, then clearly **recommend** needed vaccines.
- **Offer** needed vaccines or refer patients to another provider for vaccination.
- **Document** vaccinations given.
- **Measure** vaccination rates of providers' patient panels.

<https://www.cdc.gov/vaccines/hcp/adults/for-practice/increasing-vacc-rates.html>

*<https://www.izsummitpartners.org/call-to-action-adult-immunizations/>.

Effective Strategies to Increase Influenza (and adult!) Vaccination Coverage

Intervention	Population
Reducing client out-of-pocket costs for vaccinations	Adults
Client reminder/recall systems	Adults
Community-based interventions when implemented in combination	Adults
Provider reminder systems when used alone	Adults
Provider assessment and feedback	Adults
Standing orders	Adults
Health care-based interventions when implemented in combination	Adults
Worksite interventions with on-site, reduced-cost, actively promoted influenza vaccinations	Adults, healthcare personnel

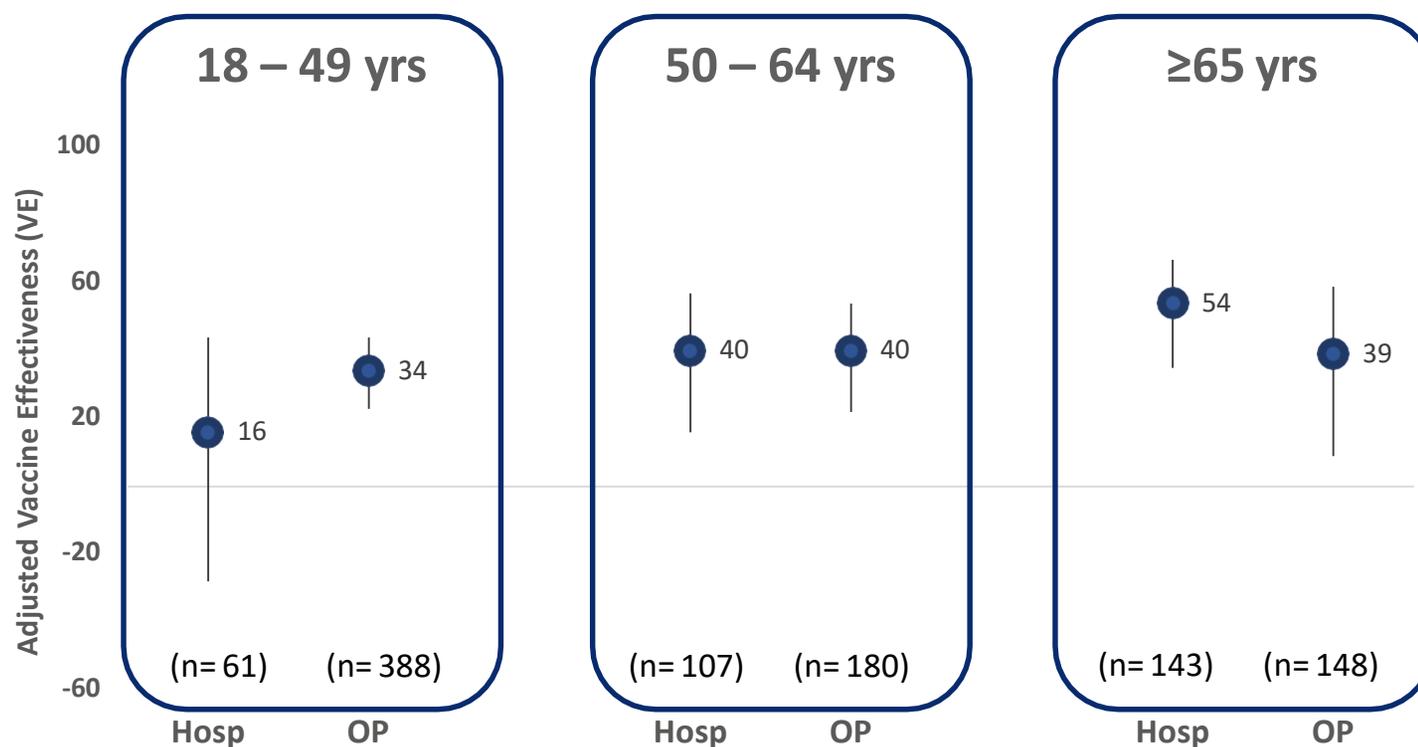
Influenza Vaccine Effectiveness

Insufficient data from the past flu season to make a vaccine effectiveness estimate!

Influenza Vaccine Effectiveness (2019 – 2020 season)

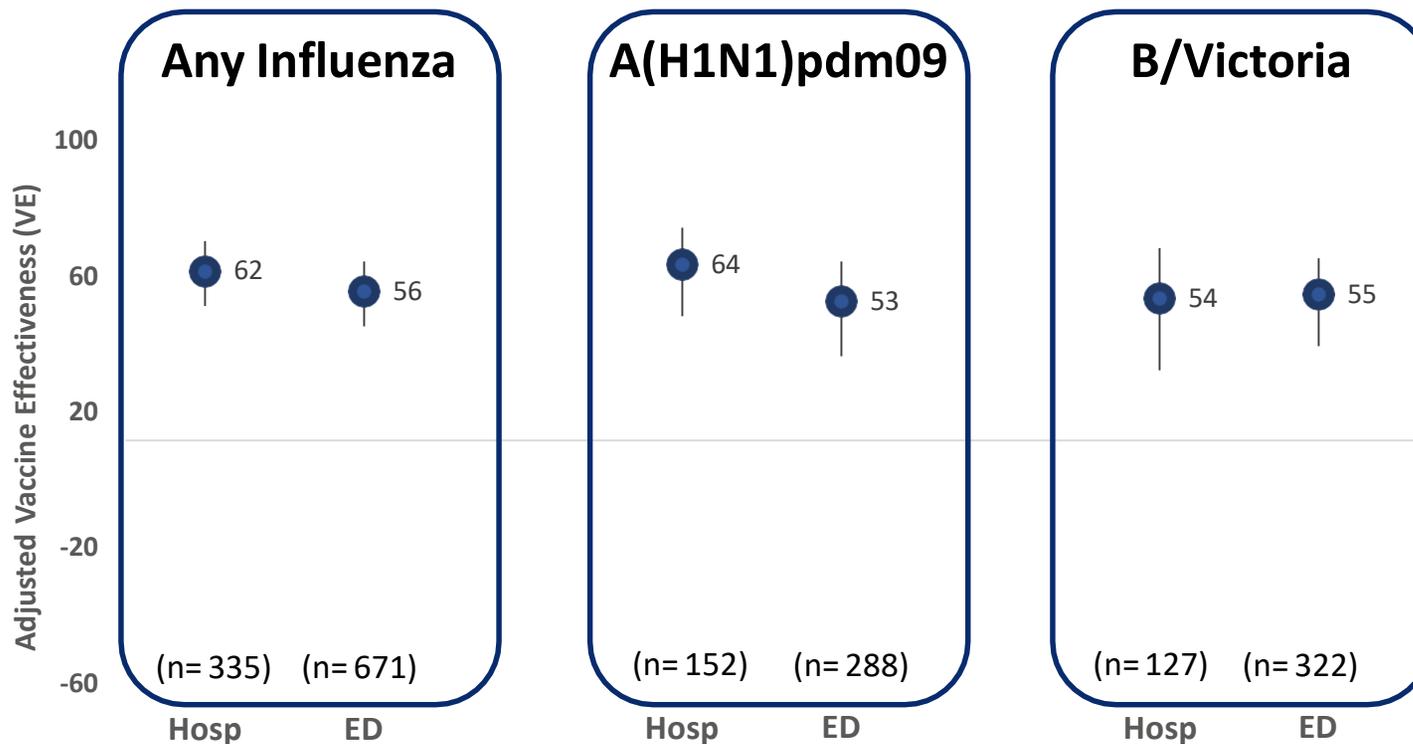
Age group (years)	Influenza positive Total	Vaccinated influenza positive (% vaccinated)	Influenza negative Total	Vaccinated influenza negative (% vaccinated)	Adjusted VE %	Adjusted 95% CI
All ages	2722	1140 (42)	6123	3388 (55)	39	(32, 44)
6 mos–8	646	269 (42)	1365	759 (56)	34	(19, 46)
9–17	471	155 (33)	722	324 (45)	40	(22, 53)
18–49	1056	388 (37)	2202	991 (45)	34	(23, 44)
50–64	350	180 (51)	998	619 (62)	40	(22, 54)
≥65	199	148 (74)	836	695 (83)	39	(9, 59)

Preliminary VE against influenza hospitalizations and outpatient visits among adults, by age group, HAIVEN/Flu VE Network – 2019-20



* Final models adjusted for study site, age, sex, race/ethnicity, days from illness onset to specimen collection, timing of illness onset, ≥1 hospitalizations (versus none) in prior year (HAIVEN)

Preliminary VE against pediatric influenza hospitalizations, ED visits - NVSN, 2019-20



- Final models adjusted for study site, age as a continuous variable and calendar time (monthly intervals)
- n values show the total number of influenza positive subjects in each group

Summary of VE for the 2019-2020 influenza season

- Vaccination reduced medically attended illness due to any influenza virus type by 39% (95%CI: 32, 44)
 - 34% (CI: 19 to 46) VE against any influenza in children 6m–8 years
- Vaccination provided 45% (CI: 37 to 52) protection against predominant influenza B/Victoria virus (clade V1A.3)
- Remember that vaccine offers significant protection against influenza hospitalizations
 - Vaccine reduced influenza hospitalizations by 41% among all adults and by 54% among adults ≥ 65 years of age (influenza A and B viruses) in 2019-20 season

Another way to look at influenza vaccine effectiveness – negative outcomes averted

the benefits of flu vaccination **2019-2020**



www.cdc.gov/flu

Flu vaccination in the U.S. during the 2019-2020 season prevented an estimated:

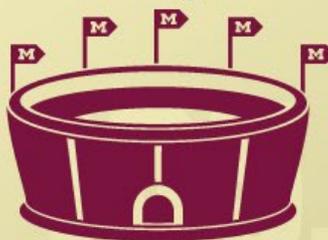
7.5
million
flu illnesses

More than the combined population of Kentucky and Kansas



105,000
flu hospitalizations

Enough people to fill Michigan Stadium at the University of Michigan



6,300
flu deaths

Equivalent to saving about 17 lives per day over the course of a year



Vaccine Effectiveness – Influenza and CVD

- Acute respiratory illness or influenza-like illness increases acute MI risk 2x; 5x is those with history of MI
- Influenza vaccination effectiveness: Meta-analyses¹⁻²
 - 29% (95%CI 9,44) against acute MI in persons with existing CVD
 - 36% (95%CI 14,53) against major cardiac events with existing CVD
- Vaccine effectiveness 29% in acute MI prevention
 - “On par or better than accepted preventive measures [as] statins (36%), anti-hypertensives (15–18%), and smoking cessation (26%)”
 - Influenza vaccination recommended as secondary prevention by American College of Cardiology and American Heart Association

1. Barnes M, et al. Acute myocardial infarction and influenza: a meta-analysis of case-control studies. *Heart* 2015;101:1738–1747

2. Udell JA, et al. Association between influenza vaccination and cardiovascular outcomes in high-risk patients: a meta-analysis. *JAMA* 2013;310:1711–20

Vaccine Effectiveness – Influenza and Diabetes

- Six cohort and five case-control studies were included in a recently-published systematic review and meta-analysis¹.
- In working age persons with diabetes mellitus,
 - There was pooled VE of 58% against all cause hospitalization
 - No significant effects on all-cause mortality and influenza-like illness
- In elderly patients with diabetes mellitus, adjusted VEs of 38% against all-cause mortality and 23% against all-cause hospitalization were seen.
- Present evidence suggests that influenza vaccination among adults and elderly with diabetes mellitus is efficacious and safe.²

1. Renschmidt C, Wichmann O, Harder T. Vaccines for the prevention of seasonal influenza in patients with diabetes: systematic review and meta-analysis. *BMC Med* 2015;13:53.

2. M. Goeijenbier, T.T. van Sloten, L. Slobbe, C. Mathieu, P. van Genderen, Walter E.P. Beyer, Albert D.M.E. Osterhaus. 2017. *Vaccine* 35(38):5095-5101

Vaccine Effectiveness – Chronic Lung Disease

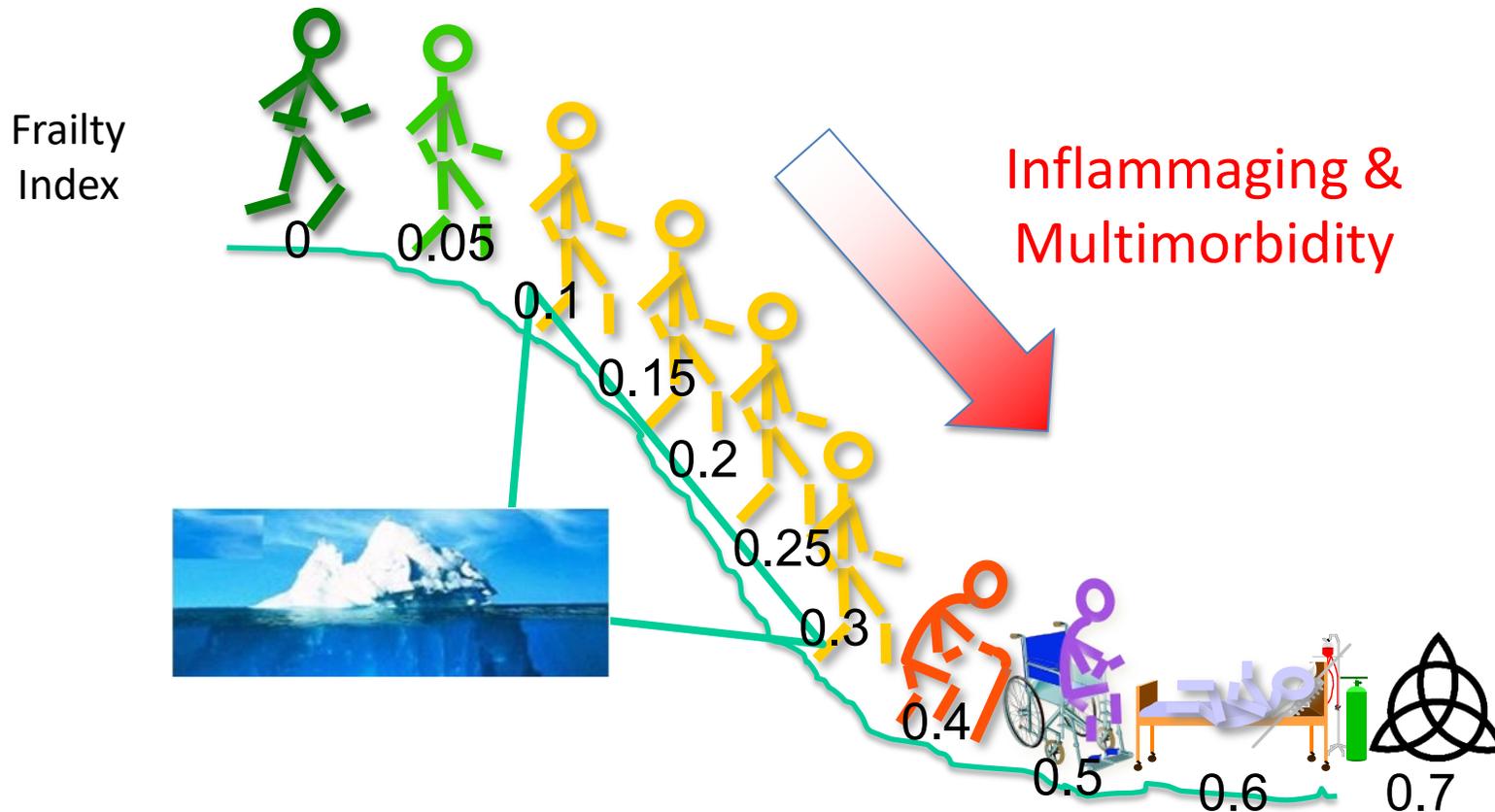
- 43% (95% CI, 35%-52%) reduction in laboratory-confirmed influenza-associated hospitalization in persons with COPD.¹
- In another study, influenza vaccination resulted in a 38% reduction in influenza-related hospitalizations in vaccinated vs unvaccinated individuals among patients with COPD.²
- Influenza vaccination was associated with fewer hospitalizations for pneumonia and influenza (adjusted risk ratio, 0.48 [95% CI, 0.28 to 0.82]) and with lower risk for death (adjusted odds ratio, 0.30 [CI, 0.21 to 0.43]) during the influenza seasons. It was also associated with fewer outpatient visits for pneumonia and influenza and for all respiratory conditions.³

1. Gershon, A.S. et al. 2020. JID. DOI: [10.1093/infdis/jiz419](https://doi.org/10.1093/infdis/jiz419).

2. Mulpuru, S. et al. 2019. Chest. doi: [10.1016/j.chest.2018.10.044](https://doi.org/10.1016/j.chest.2018.10.044).

3. Nichol, K.L. et al. 1999. Vaccine. [doi: 10.1016/S0264-410X\(99\)00114-0](https://doi.org/10.1016/S0264-410X(99)00114-0)

Resilience to Influenza with Aging



Graphic courtesy of Janet McIlhaney, MD

Resilience to Influenza with Aging



ACIP Influenza Recommendations (2021-22)

- All persons 6 months of age or older should receive influenza immunization (unchanged)
 - Influenza vaccination should not be delayed to procure a specific vaccine preparation if an appropriate one is already available
- Influenza vaccine usually becomes available in July.
- Optimal vaccination – vaccinated by the end of October
- Certain persons should be vaccinated earlier rather than later.
 - Children 2 – 8 years of age who require 2 doses of influenza vaccine
 - Persons who are in the third trimester of pregnancy

ACIP Influenza Recommendations (2020-21) - continued

- Vaccination should be offered as long as influenza viruses are circulating, and unexpired vaccine is available
 - Vaccine administered in December or later, even if influenza activity has already begun, is likely to be beneficial in the majority of influenza seasons
- Final 2021 – 22 recommendations (released 8/27/2021):
<https://www.cdc.gov/mmwr/volumes/70/rr/rr7005a1.htm>

Co-administration of Influenza Vaccines with COVID-19 Vaccines

- Current CDC guidance indicates that COVID-19 vaccines and other vaccines, including influenza, may be co-administered without regard to timing.
- Providers should check current CDC COVID-19 vaccination guidance for updated information concerning co-administration.
- Significant number of adults >65 years of age are getting COVID-19 boosters and should be offered flu (and other appropriate) vaccinations at the same time!

What to expect this upcoming flu season??

- Influenza will most likely be back, although current surveillance shows less flu than typical
 - Other respiratory pathogens (e.g. RSV) that “disappeared” last season are already returning
 - No idea how severe this next flu season will be.
 - Influenza viruses and SARS CoV 2 will likely co circulate.
 - People may be co infected with influenza and SARS CoV 2.
- Presence of influenza on top of SARS CoV 2 delta variant at the same time will likely increase the burden on the health care system and result in many illnesses, hospitalizations, and deaths.

#Avoidthetwindemic

#Takefluoffthetable.....AGAIN!!

- A “twindemic” of flu and COVID-19 will create surge capacity issues for our healthcare systems
- A strong, unified, national message to seek flu vaccination can result in increased vaccinations.
- Need to emphasize that after getting COVID-19 vaccine, “you’re not done yet...” and recommend flu vaccine
- Access points must be varied, innovative
- Vaccination efforts need to remain until every dose is administered...extending the season into December and January

IAC has developed Mass Immunization Clinic Resource Repository



Mass Vaccination Resources

Resources for Setting Up Mass Vaccination Clinics

Mass vaccination is the administration of vaccine(s) to a large number of people over a relatively short period of time, allowing providers to rapidly and efficiently immunize communities. Due to the unique nature of mass vaccination clinics, they frequently are held in non-traditional or temporary settings, such as in parking lots or large indoor spaces. Patient flow may be managed through a variety of venues, such as walk-through, drive-through, and curbside clinics, or by using mobile medical units.

This listing from the [Immunization Action Coalition](https://www.immunize.org/) offers access to guidance documents, toolkits, and other helpful resources, produced over a span of many years, and to information that can be adapted to meet the needs of

<https://www.mass-vaccination-resources.org/>

Webinar

Related Resources

About

Home

How do we discuss Vaccine Effectiveness?

- Communicate the variability and unpredictability of flu
- Acknowledge that flu vaccination is not a perfect tool, but it is the best way to protect against flu infection
- Communicate the benefits of flu vaccination beyond prevention of disease – Quality of Life (vaccine preventable disability)
 - Flu vaccination can reduce doctors' visits, missed work and school due to flu, as well as prevent flu-related hospitalizations and deaths.

Dispelling Myths and Handling Objections About Flu Shots

OBJECTION:

The flu shot will give me the flu.

It's impossible to get the flu from the flu vaccine. It is made with viruses that are not infectious or with no viruses at all. You can get the flu from someone else.

OBJECTION:

I'm healthy. I don't need a shot.

Every year, healthy people get sick from the flu, and some even die. Many people have underlying conditions that they are not aware of. Even with a mild case, you can still pass the virus along to the people you love and care about.

OBJECTION:

I've never had the flu.

Every year, up to 20% of Americans get the flu—that's up to 60 million people—many of whom have not had the flu before.

OBJECTION:

The flu shot doesn't work.

Effectiveness varies from season to season and between flu strains. Vaccine effectiveness is not just measured by the percentage of disease prevented but more importantly, by the myriad of negative outcomes that vaccination prevents even if you catch the flu, such as hospitalization and quality of life (disability).

IAC Resource for clinicians (www.influenza-defense.org)



YOUR OLDER
ADULT PATIENTS
ARE AT RISK

YOUR
RECOMMENDATION
MATTERS

VACCINATION:
THE BEST
PROTECTION

ABOUT
INFLUENZA

TOOLS AND
RESOURCES

FOR OLDER ADULTS,
INFLUENZA (FLU)
CAN BE DEADLY

90% of flu-related deaths¹ and the majority of flu-related hospitalizations in the United States occur in people age 65 and older.²



CDC 2021-2022 Flu Vaccination Messaging*

- Influenza (flu) activity during the 2020-2021 season was unusually low both in the United States and globally, despite high levels of testing.
- Relaxed COVID-19 mitigation measures will likely result in the resumption of seasonal flu virus circulation.
- Some respiratory viruses, like RSV, are spreading at increased levels**, and there could be more widespread respiratory disease this fall and winter. Getting a flu vaccine will be important to prevent flu.
- CDC is preparing for flu and SARS-CoV-2 to co-circulate, along with other respiratory viruses this season.
 - This could place a renewed high burden on the health care system.
 - Reduced population immunity due to lack of flu virus activity since March 2020 could result in an early and possibly severe flu season.

*<https://www.izsummitpartners.org/2021-08-12/>

**<https://www.cdc.gov/mmwr/volumes/70/wr/mm7029a1.htm>

CDC 2021-2022 Flu Vaccination Messaging*

- CDC recommends a three-pronged approach to fighting flu.
 - Vaccinate to prevent flu illnesses, hospitalizations and deaths.
 - Treat with influenza antiviral drugs promptly to reduce flu illnesses, hospitalizations and deaths, especially among people at higher risk of serious flu complications.
- CDC recommends the use of certain everyday infection control interventions that may help reduce the spread of respiratory viruses like flu, including staying away from others if sick, covering the cough, and frequent handwashing.
- In the context of the COVID-19 pandemic, local governments or public health departments may recommend additional precautions be taken in your community.

CDC 2021-2022 Flu Vaccination Messaging*

- Emphasize the many benefits to flu vaccination.
 - Flu vaccination reduces flu illnesses, hospitalizations and deaths.
 - Flu vaccination reduces the burden of flu on health care systems.
 - Flu vaccination protects pregnant women from flu and protect their babies from flu for several months after birth.
 - Flu vaccination reduces the rates of some cardiac events among people with heart disease.
 - Flu vaccination reduces the rate of hospitalizations related to diabetes and chronic lung disease.

CDC 2021-2022 Flu Vaccination Messaging*

- Target people who are at higher risk for flu complications, for example people of any age with a chronic condition like a breathing or lung problem, heart disease or a weakened immune system, for flu vaccination
 - In the past, 9 out of 10 people hospitalized from flu have had at least one underlying health condition.
- CDC received reports of 199 children dying from flu during 2019-2020.
 - Record-breaking number of reported pediatric flu deaths.
 - 80% were not vaccinated.
 - Flu can be serious for kids and a flu vaccine is the best way to protect children from flu.

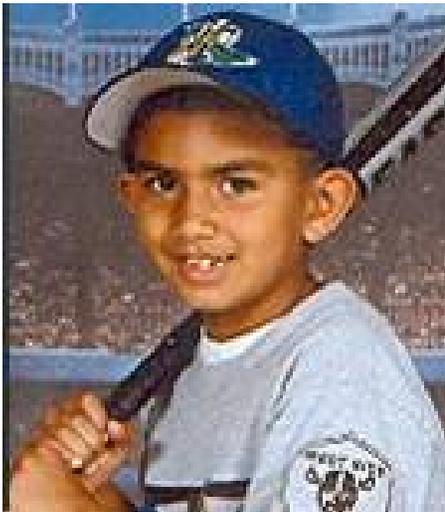


Amanda, died at age 4½ yrs from influenza

Why do we immunize against influenza?



Breanne, died at age 15 mos from influenza complications



Lucio, died at age 8 yrs from influenza complications



Alana, died at age 5½ yrs from influenza



Barry, a veteran fire-fighter, died at age 44 yrs from influenza

Slide Courtesy of Families Fighting Flu

Visit IAC Resources!

- IAC's Influenza Educational Materials
 - <https://immunize.org/influenza/>
- Read our publications!
 - <http://www.immunize.org/publications/>
- Visit our websites!
 - www.immunize.org
 - www.vaccineinformation.org
 - www.immunizationcoalitions.org
 - www.izsummitpartners.org
- Stay ahead of the game! Subscribe to our updates!
 - <http://www.immunize.org/subscribe/>

**Thank You
for your
attention!**

