

# MEET THE RED BOOK COMMITTEE: INFLUENZA UPDATE

**SEPTEMBER 7, 2022** 

#### HOUSEKEEPING

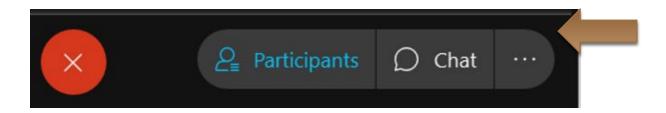
- This event will be recorded for educational purposes. The recording will be available within a couple of days on the AAP Red Book Online and Influenza Patient Care web pages.
- The information or content and conclusions are those of the faculty and should not be constructed as the official position or policy of the AAP or the faculty's academic institutions



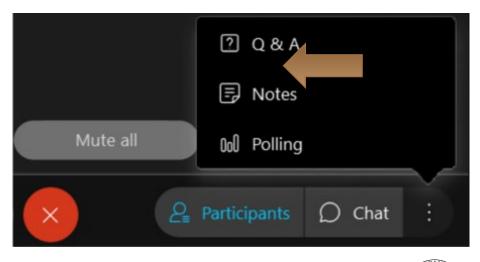


# HOUSEKEEPING

- All audio lines are muted
- Use the Q&A window to submit questions
- Use the Chat window for help with technical difficulties
- Please participate!









# AAP RECOMMENDATIONS FOR INFLUENZA **SEASON 2022-2023**

POLICY STATEMENT Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

American Academy

Recommendations for Prevention and Control of Influenza in Children. 2022-2023

This statement updates the recommendations of the American Academy of abstract Pediatrics for the routine use of influenza vaccine and antiviral medications in the prevention and treatment of influenza in children during the 2022-2023 influenza season. A detailed review of the evidence supporting these recommendations is published in the accompanying technical report (to be linked when published). The American Academy of Pediatrics recommends annual influenza vaccination of all children without medical contraindications starting at 6 months of age. Influenza vaccination is an important strategy for protecting children and the broader community, as well as reducing the overall burden of respiratory illnesses when other viruses, including severe acute respiratory syndromecoronavirus 2, are cocirculating. Any licensed influenza vaccine appropriate for age and health status can be administered, ideally as soon as possible in the season, without preference for one product or formulation over another.

Antiviral treatment of influenza with any US Food and Drug Administration-approved, age-appropriate influenza antiviral medication is recommended for children with suspected or confirmed influenza who are hospitalized, have severe or progressive disease, or have underlying conditions that increase their risk of complications of influenza, regardless of duration of illness. Antiviral treatment should be initiated as soon as possible. Antiviral treatment may be considered in the outpatient setting for symptomatic children with suspected or confirmed influenza disease who are not at high risk for influenza complications, if treatment can be initiated within 48 hours of illness onset, and for children with suspected or confirmed influenza disease whose siblings or household contacts either are younger than 6 months or have a high-risk condition that predisposes them to complications of influenza. Antiviral chemoprophylaxis is recommended for the prevention of influenza virus infection as an adjunct to vaccination in certain individuals, especially exposed children who are at high risk for influenza complications but have not yet been immunized

Academy of Pediatrics and its board of directors. All authors have filed conflict of interest statements with the American Academy of Pediatrics. Any conflicts have been resolved through a process approved by the Board of Directors. The American Academy of Pediatrics has neither solicited nor accepted any commercial involvement in the development of the content of this publication

from expertise and resources of liaisons and internal and external reviewers. However, policy statements from the American Academy of Pediatrics may not reflect the views of the liaisons or the

The guidance in this statement does not indicate an exclusive course of treatment or serve as a standard of medical care Variations, taking into account individual circumstances, may be

All policy statements from the American Academy of Pediatric automatically expire 5 years after publication unless reaffirmed revised, or retired at or before that time.

DOI: https://doi.org/10.1542/peds.2022-059274

Convright @ 2022 by the American Academy of Pediatrics

COMPANION PAPER: A companion to this article can be found online at www.pediatrics.org/cgi/doi/10.1542/peds.2022-059275

To cite: AAP Committee on Infectious Diseases

# Policy Statement and **Technical Report**

#### **Publication:**

Early released on September 6th

October issue of Pediatrics

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



# WHAT'S NEW FOR 2022-2023?

- Vaccine composition updated
- Age-indication for Flucelvax Quadrivalent lowered to 6 months
- Age indication for peramivir lowered to 6 months (treatment)
- Age indication for baloxavir lowered to 5 years of age (treatment and prophylaxis)
- Elimination of race-based recommendations
- Focus on evidence-based strategies to increase immunization





# **WHAT'S NOT NEW FOR 2022-2023?**

- Influenza continues to cause morbidity and mortality in children.
- Annual influenza vaccination is recommended for all persons 6 months and older.
- Any vaccine appropriate for age and health status can be used.
- Influenza vaccine can be administered at the same time as other vaccines, including the COVID-19 vaccine.
- Antiviral treatment recommended for certain children with influenza.





# **HEALTH DISPARITIES AND INFLUENZA**

Table 2. Age-Specific Rate Ratios of Hospitalization, ICU Admission, and In-Hospital Death by Race and Ethnicity

	Rate ratio (95% CI)							
	Non-Hispanic							
Outcome	White	Black	American Indian or Alaska Native	Asian or Pacific Islander	— Hispanic			
Hospitalization, age group, y								
≤4	1 [Reference]	2.21 (2.10-2.33)	3.00 (2.55-3.53)	1.26 (1.16-1.38)	1.87 (1.77-1.97)			
5-17	1 [Reference]	1.99 (1.88-2.11)	1.48 (1.16-1.90)	0.81 (0.72-0.91)	1.28 (1.19-1.36)			
18-49	1 [Reference]	2.52 (2.44-2.59)	1.72 (1.51-1.96)	0.61 (0.57-0.65)	1.29 (1.24-1.34)			
50-64	1 [Reference]	2.50 (2.43-2.57)	1.54 (1.34-1.76)	0.63 (0.59-0.67)	1.25 (1.20-1.31)			
65-74	1 [Reference]	1.74 (1.68-1.81)	0.96 (0.79-1.17)	0.84 (0.78-0.89)	1.18 (1.12-1.25)			
≥75	1 [Reference]	1.05 (1.02-1.09)	0.79 (0.66-0.94)	1.02 (0.98-1.06)	0.93 (0.89-0.98)			
CU admission, age group, y								
≤4	1 [Reference]	2.74 (2.43-3.09)	3.51 (2.45-5.05)	1.31 (1.06-1.61)	1.96 (1.73-2.23)			
5-17	1 [Reference]	2.00 (1.77-2.26)	1.88 (1.18-3.00)	0.97 (0.78-1.22)	1.16 (1.00-1.34)			
18-49	1 [Reference]	1.85 (1.72-1.99)	1.84 (1.40-2.42)	0.57 (0.49-0.66)	1.14 (1.04-1.24)			
50-64	1 [Reference]	2.09 (1.96-2.23)	1.17 (0.84-1.63)	0.61 (0.53-0.71)	1.04 (0.93-1.15)			
65-74	1 [Reference]	1.50 (1.37-1.64)	1.34 (0.91-1.98)	0.87 (0.75-1.00)	1.11 (0.98-1.27)			
≥75	1 [Reference]	1.26 (1.15-1.37)	0.72 (0.42-1.21)	1.21 (1.08-1.34)	0.88 (0.77-1.00)			
n-hospital death, age group, y								
≤4	1 [Reference]	3.39 (1.40-8.18)	6.71 (0.85-52.97)	4.35 (1.55-12.22)	2.98 (1.23-7.19)			
5-17	1 [Reference]	1.19 (0.62-2.28)	4.17 (1.00-17.41)	1.55 (0.68-3.51)	0.80 (0.38-1.69)			
18-49	1 [Reference]	1.22 (0.94-1.57)	2.20 (1.04-4.67)	0.55 (0.35-0.87)	1.07 (0.81-1.41)			
50-64	1 [Reference]	1.53 (1.28-1.83)	1.24 (0.55-2.77)	0.46 (0.31-0.70)	1.08 (0.83-1.40)			
65-74	1 [Reference]	1.19 (0.94-1.51)	0.60 (0.15-2.42)	1.00 (0.72-1.39)	1.07 (0.77-1.48)			
≥75	1 [Reference]	0.93 (0.79-1.10)	0.44 (0.14-1.35)	1.22 (1.02-1.46)	0.71 (0.56-0.91)			

Abbreviation: ICU, intensive care unit.

MEET THE RED BOOK COMMITTEE

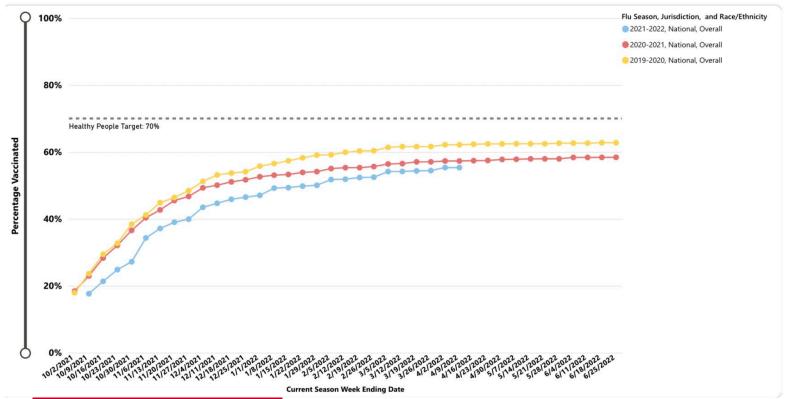
The rate of in-hospital death was 3- to 4-fold higher in Black,
Hispanic, and
Asian/Pacific Islander children compared with white children.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN

DEDICATED TO THE HEALTH OF ALL CHILDREN

# INFLUENZA IMMUNIZATION RATES FALLING





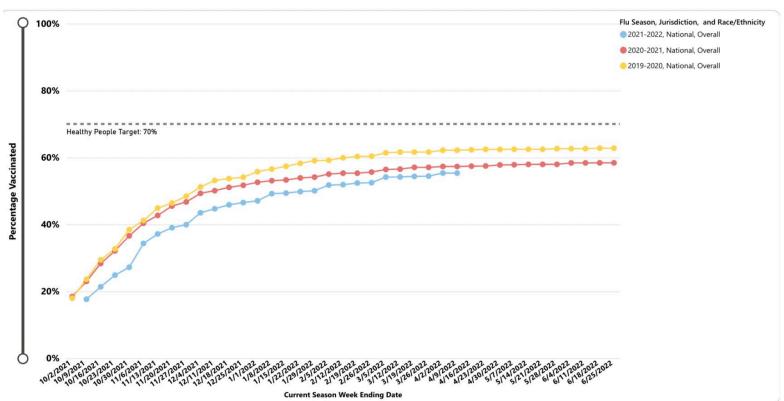
Influenza vaccination coverage in children 6 months to 17 years of age in the United States, 2019–2020 to 2021 -2022. Data source: NIS-Flu.

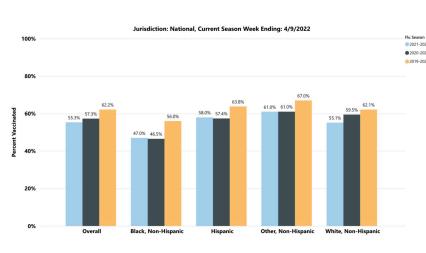
American Academy of Pediatrics



# INFLUENZA IMMUNIZATION RATES FALLING

#### AND HEALTH DISPARITIES PERSIST





https://www.cdc.gov/flu/fluvaxview/dashboard/vaccinatio n-coverage-race.html



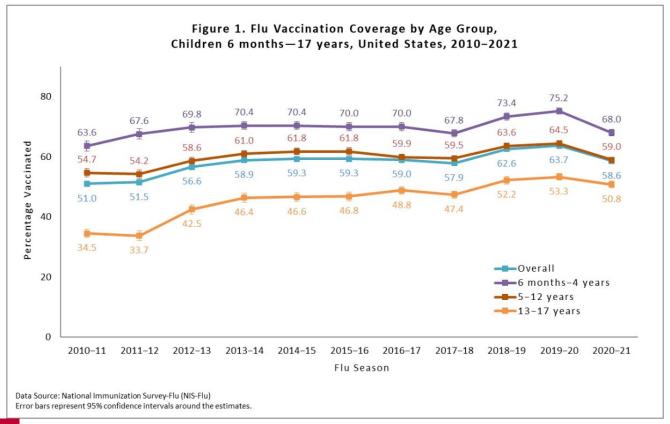
Influenza vaccination coverage in children 6 months to 17 years of age in the United States, 2019–2020 to 2021 -2022. Data source: NIS-Flu.

American Academy of Pediatrics





# **COVID-19 IMPACT ON INFLUENZA VACCINATION RATES**







#### ANTIVIRAL TREATMENT OF INFLUENZA IN CHILDREN

# Offer treatment as early as possible regardless of influenza vaccination status and duration of symptoms for:

- Any child hospitalized with suspected or confirmed influenza disease
- Any child with severe, complicated, or progressive influenza disease regardless of health care setting (ie, inpatient or outpatient)
- Any child with suspected or confirmed influenza disease of any severity if they are at high risk for influenza complications, regardless of health care setting (ie, inpatient or outpatient)





#### ANTIVIRAL TREATMENT OF INFLUENZA IN CHILDREN

#### **Consider** treatment in the outpatient setting for:

- Any child with suspected or confirmed influenza disease who is not at high risk for influenza complications, if treatment can be initiated within 48 hours of illness onset
- Any child with suspected or confirmed influenza disease whose siblings or household contacts are either younger than 6 months or at high risk for influenza complications





# **ANTIVIRALS FOR INFLUENZA**

Drug (Trade Name)	Virus	Route	Treatment <sup>a,b</sup> (Duration)	Chemopro- phylaxis <sup>d</sup> (Duration)	Adverse Effects
Oseltamivir (Tamiflu)	A and B	Oral	Birth or older <sup>c</sup> (5 days)	≥3 mo	Nausea, vomiting, headache, skin reactions, diarrhea**
Zanamivir (Relenza)	A and B	Inhalation	≥ 5 years (5 days)	≥5 y (7 days)	Bronchospasm
Peramivir (Rapivab)	A and B	IV	≥ 6 months (one dose)	NA	Diarrhea; some reports of skin reactions
Baloxavir (Zofluxa)	A and B	Oral	≥ 5 years (one dose)	≥5 years (one dose)	Vomiting, diarrhea

- a. Treatment within 48 hr of onset of illness has greatest effect in reduction of symptoms and duration of illness
- b. No antiviral is specifically approved for severe influenza, but observational studies support effect on reduction of complications, and most experts support use
- c. FDA approved for children 2 wk of age and older but AAP supports use from birth in term and preterm infants
- d. Chemoprophylaxis: High risk children who cannot get vaccinated or may not respond to vaccine; within 2 weeks after vaccination if circulation of influenza, contacts of HR patients, control of outbreaks





# **EXPERT PANELISTS**



Annika Hofstetter, MD, PhD, MPH, FAAP



José R. Romero, MD, FAAP, FAAAS, FIDSA, FPIDS





Pia Pannaraj, MD, MPH, FAAP





