

Ready for Respiratory Virus Season? Pediatric Vaccine Updates for 2026–2027

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Disclosures

Dr. Tracie Newman, Lauren Dybsand, and Maeve Williams have no relevant financial relationships with ineligible companies to disclose.

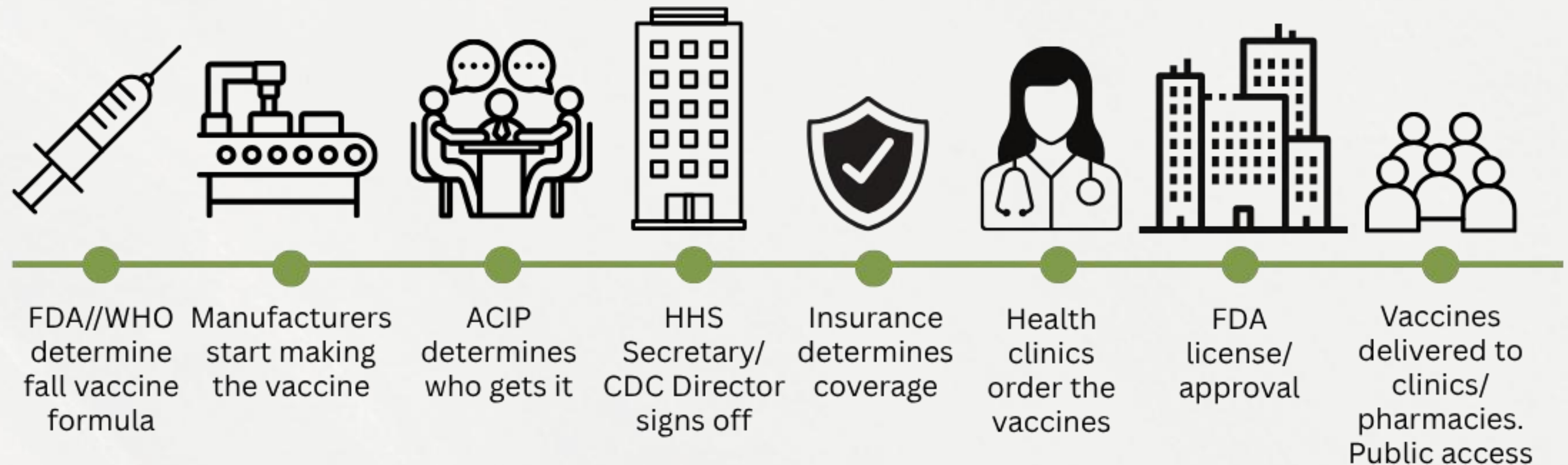
The core concepts, clinical themes, and structural outline of this presentation were entirely developed by the CIRE team. Generative AI tools were used as an editorial tool to assist with text generation, phrasing, and conciseness.

Learning Objectives

AT THE COMPLETION OF THIS ACTIVITY, THE PARTICIPANT WILL BE ABLE TO:

- 1 Summarize current and emerging trends in pediatric respiratory viruses for the 2026–2027 season, including RSV, influenza, and COVID-19.
- 2 Identify risk factors and populations most vulnerable to severe outcomes from pediatric respiratory infections.
- 3 Describe current evidence-based prevention and treatment options and evolving clinical guidelines for managing pediatric respiratory infections.

Vaccine Recommendation Process: What Usually Happens



Vaccine Recommendation Process: 2026 Changes

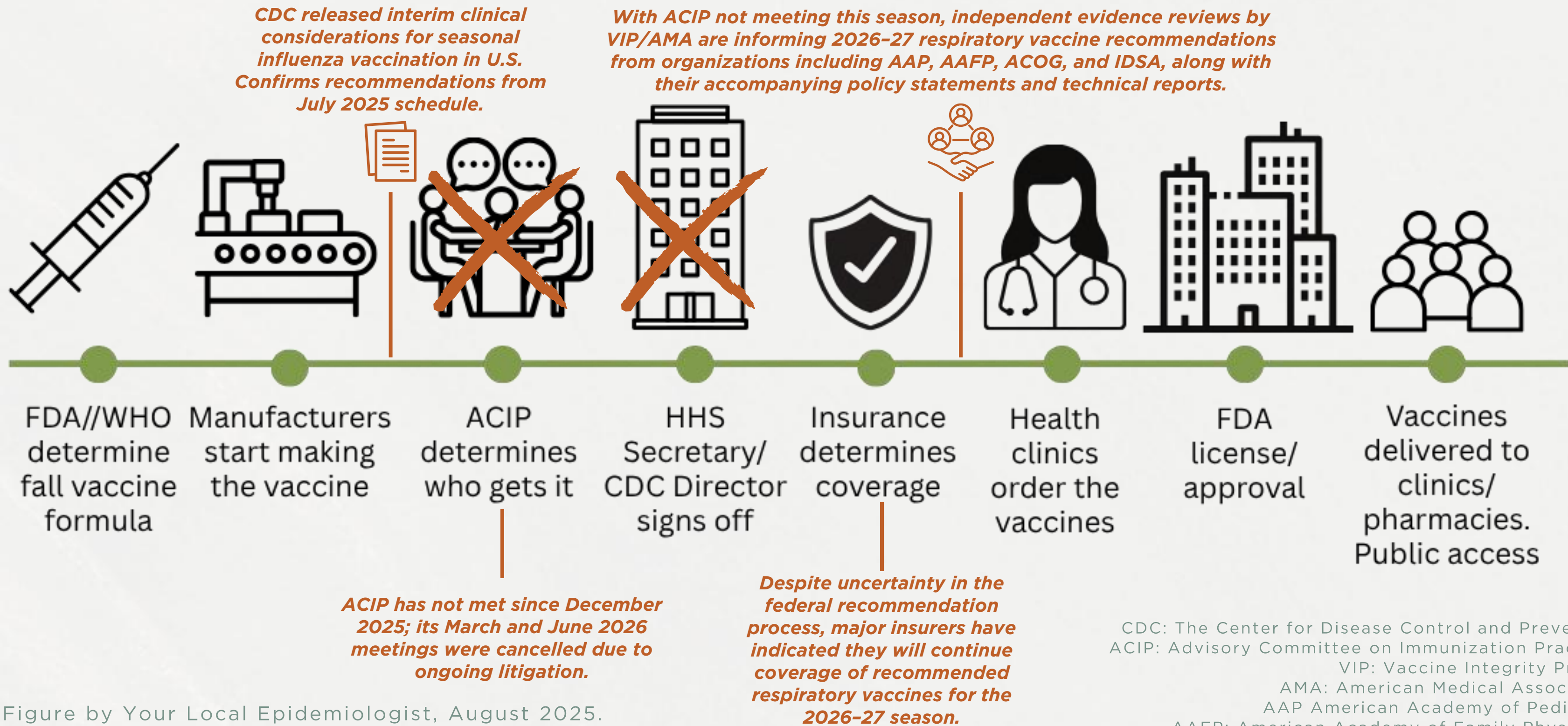
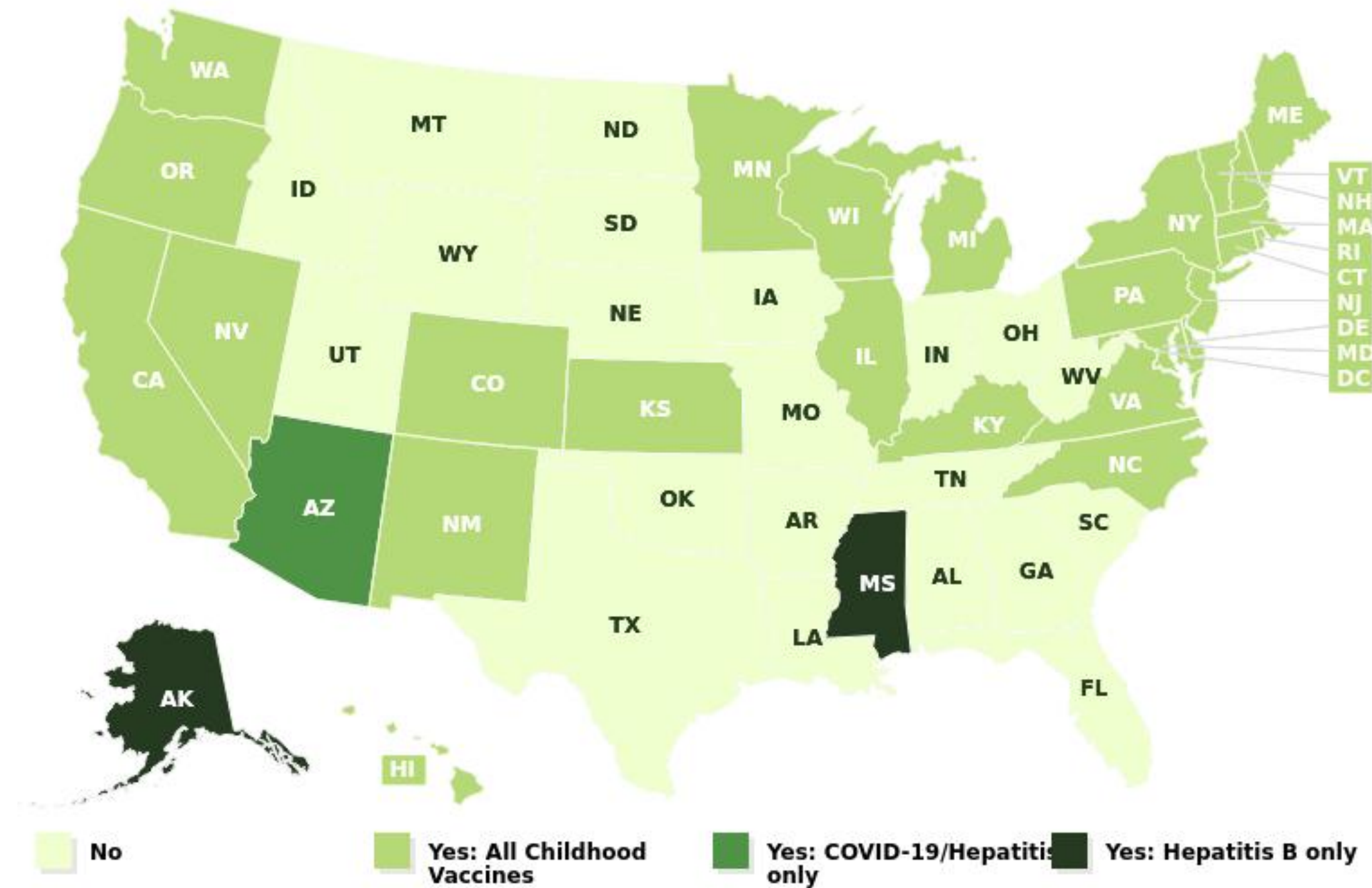


Figure by Your Local Epidemiologist, August 2025.
Jenco, AAP News, 2026
Miller, AHCA/NCAL, 2026

CDC: The Center for Disease Control and Prevention
ACIP: Advisory Committee on Immunization Practices
VIP: Vaccine Integrity Project
AMA: American Medical Association
AAP: American Academy of Pediatrics
AAFP: American Academy of Family Physicians
ACOG: American College of Obstetricians and Gynecologists
IDSA: Infectious Disease Society of America

Reliance on Sources Other Than CDC/ACIP for State Childhood Vaccine Recommendations



SOURCE: KFF's State Health Facts.

Timeframe: As of August 11, 2026

Pediatric Immunization Guide: Fall & Winter 2026-2027

Influenza (Flu) Vaccine	RSV Immunization	COVID-19 Vaccine
All children 6 months and older Some children 6 months to 8 years may need multiple doses AAP	All infants <8 months old and children 8-19 months with risk factors can receive monoclonal antibodies OR Pregnant individuals 32-36 weeks gestation can receive the maternal RSV vaccine AAP, ACOG	All children 6-23 months; children 2-18 years old with risk factors or if parents desire vaccination AAP

Figure adapted from Your Local Epidemiologist, 2026.

Will vaccines be covered?

RESPIRATORY SEASON 26 - 27



Vaccines for Children (VFC)

CONFIRMED: Flu and covid vaccines, as well as RSV immunizations, will **continue to be provided under the program this season.**

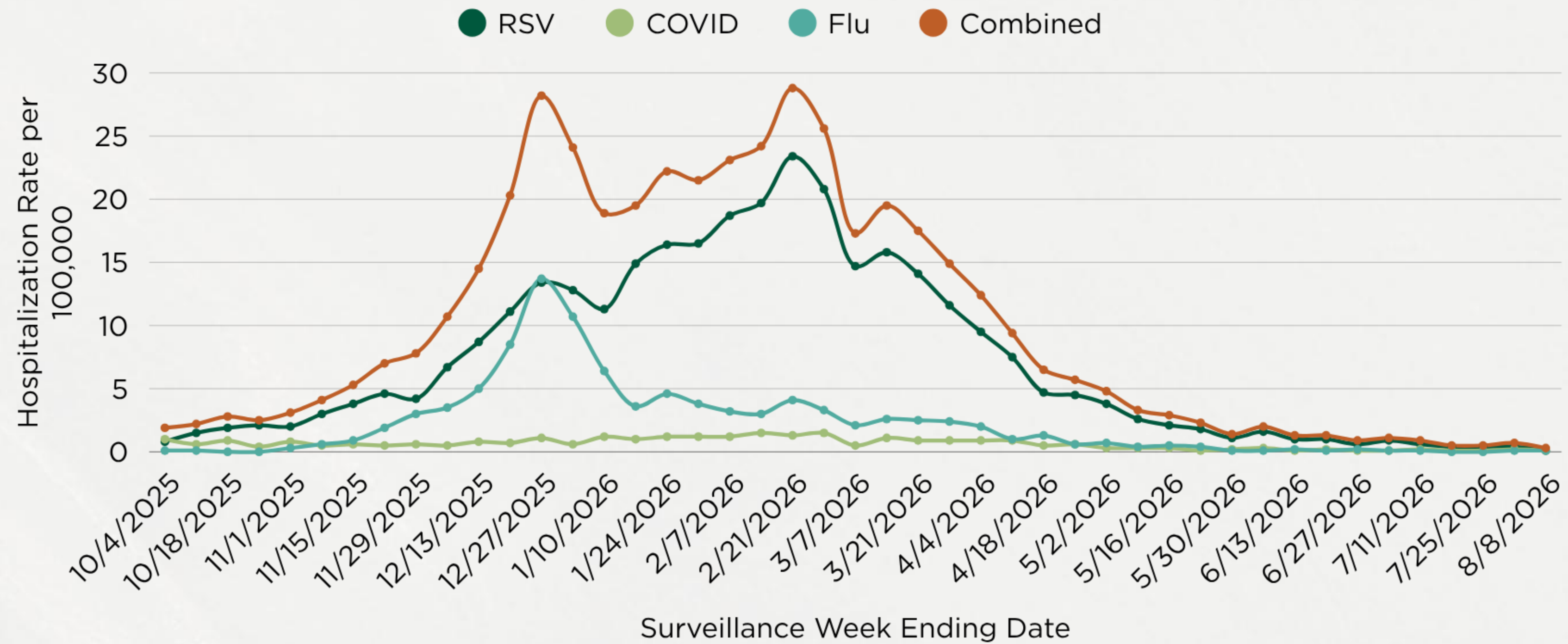


Private Insurance

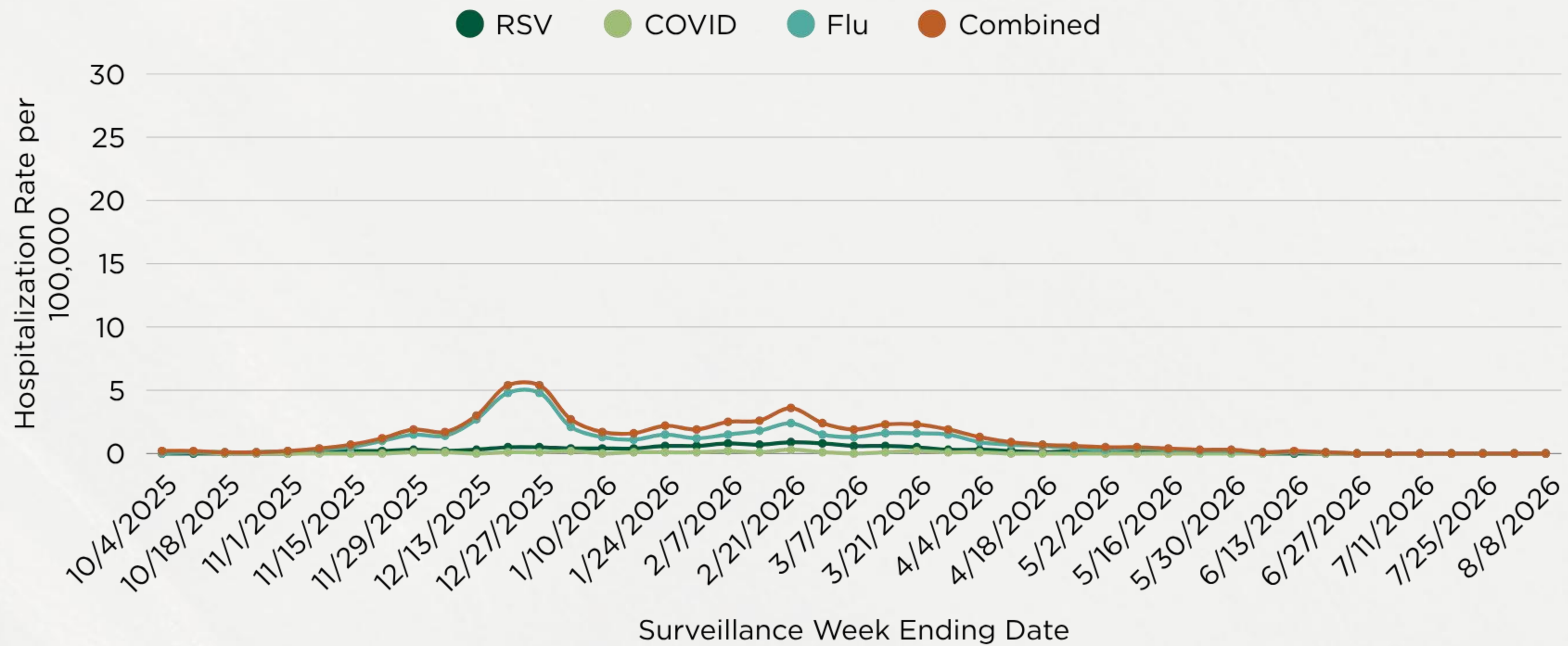
GENERALLY, YES: AHIP, an organization that includes most health insurers, has said that its members will cover the total cost of vaccines recommended PRIOR to all major changes (specifically those in place as of late 2025) at least until the end of 2027.

This includes recommendations for flu, COVID, and RSV.

2025-26 Respiratory Virus Rates, United States, 0-4 years

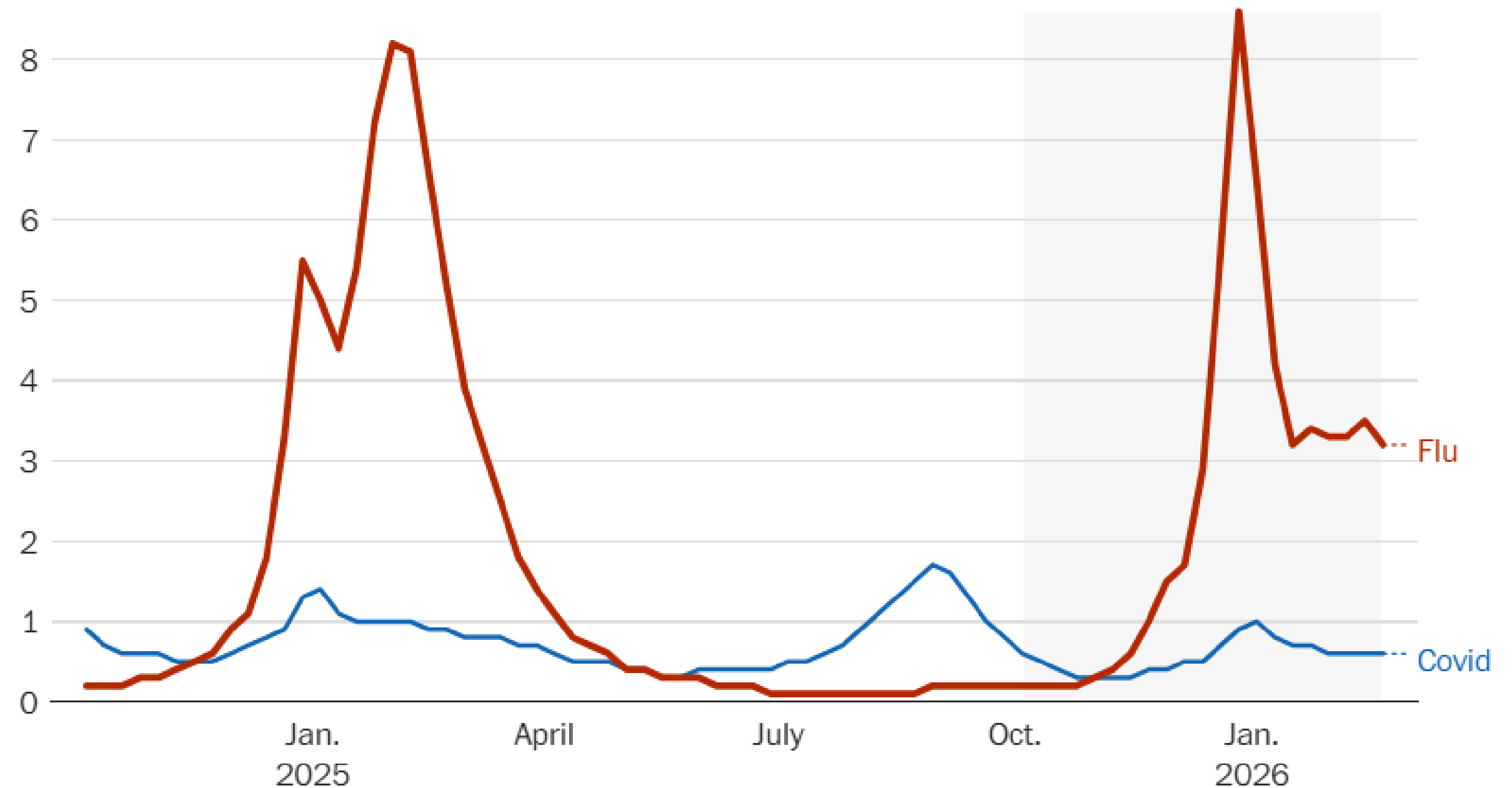


2025-26 Respiratory Virus Rates, United States, 5-17 years



Flu has
overtaken
COVID in
ERs during
the past
two winters

Weekly % of US ER visits for flu and COVID, Oct. 2024 to Feb. 2026

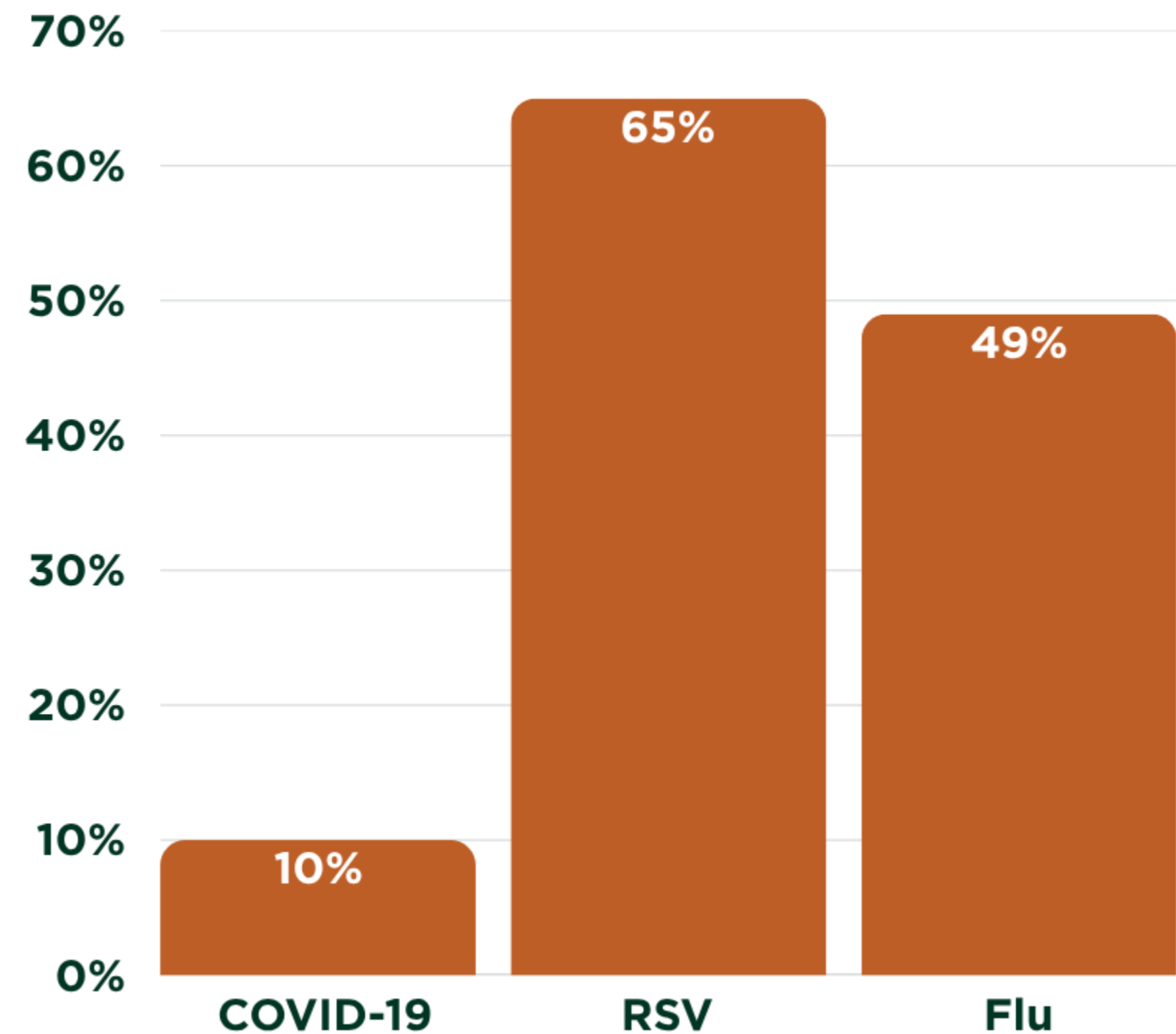


Emergency room visit data reflect respiratory illness trends because patients with symptoms are routinely tested. Data is based on a subset of U.S. emergency departments.

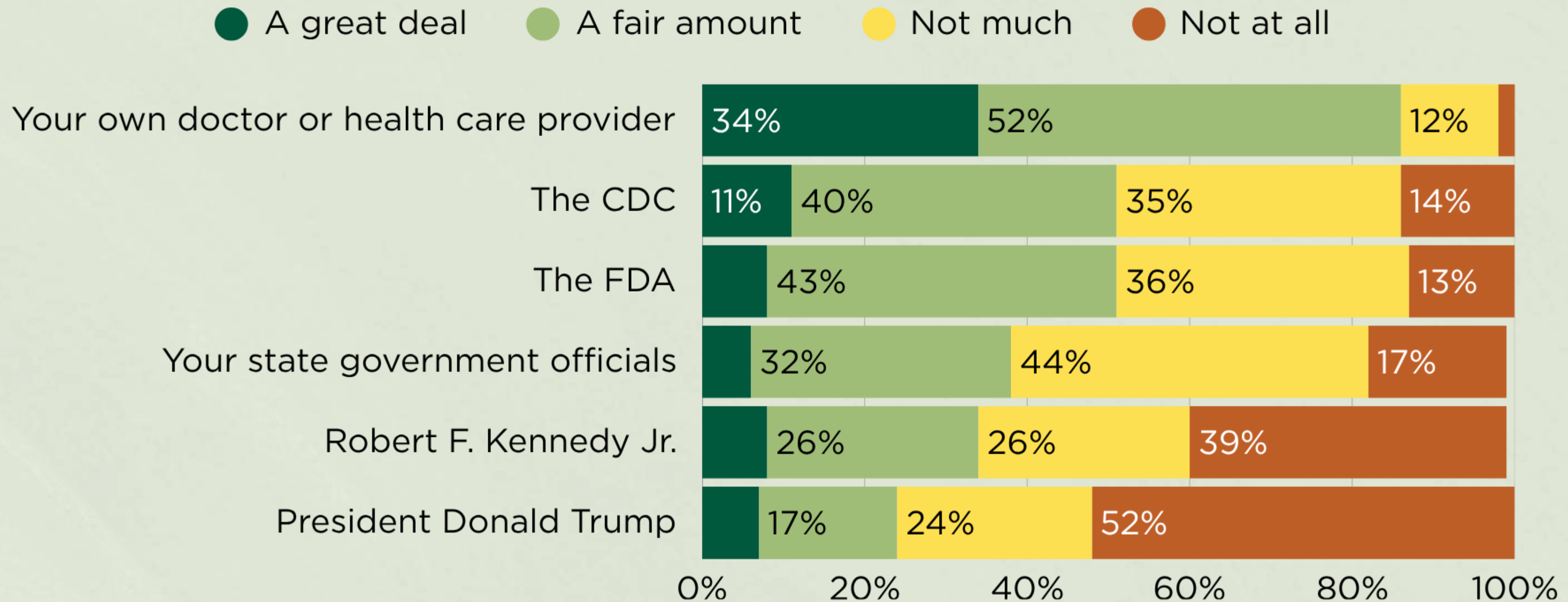
How did we do last season in the U.S.?



**Pediatric Vaccination Rates by Disease,
2025-2026 Season**



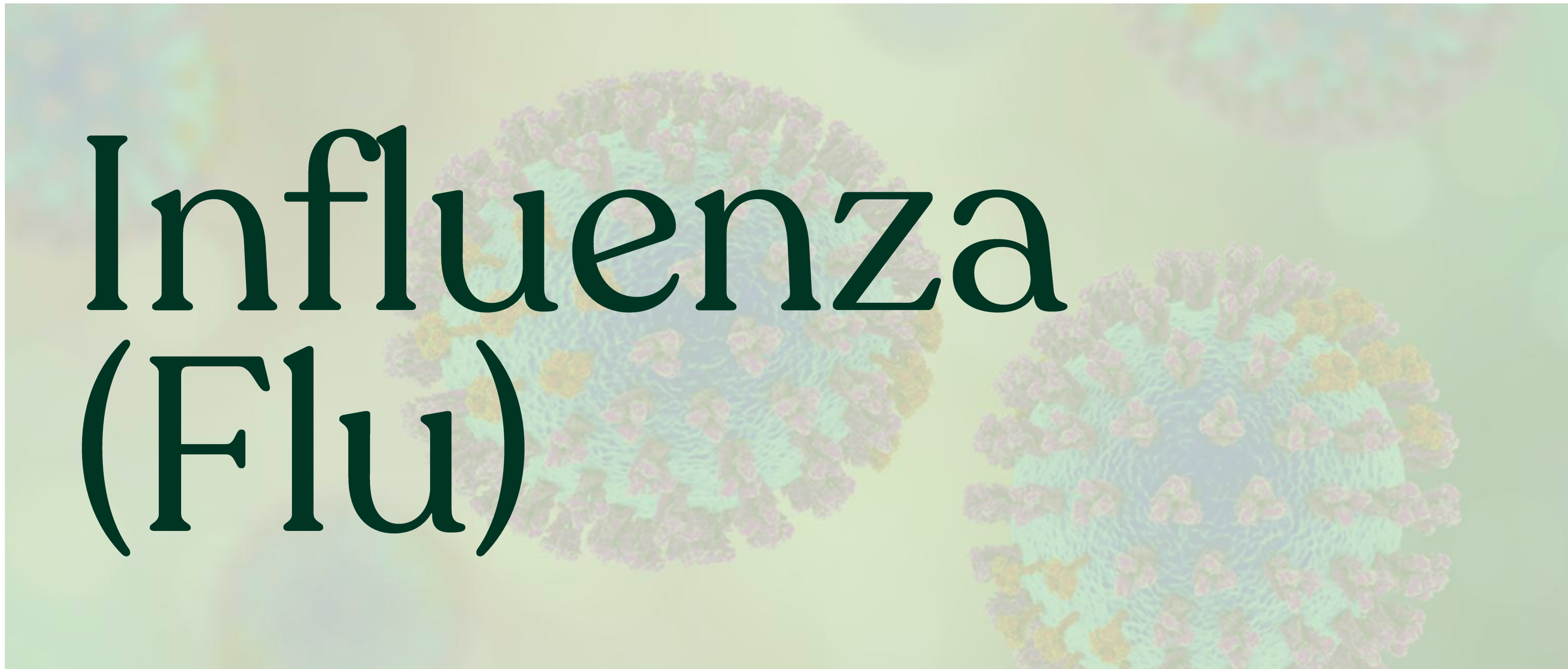
Doctors Are the Most Trusted Source for Reliable Information on Health Issues



In general, how much do you trust each of the following to provide reliable information about health issues?

Source: KFF Health Tracking Poll (June 25-30, 2026)

Influenza (Flu)



Preliminary 2025-2026 U.S. Flu In-Season Disease Burden Estimates (All Ages)

BASED ON DATA FROM OCTOBER 1, 2025 - MAY 23, 2026

CDC, Preliminary Estimated Flu Disease Burden 2025-2026 Flu Season, March 2026.



**32-57 MILLION
FLU ILLNESSES**



**15-25 MILLION
FLU MEDICAL
VISITS**



**390,000-800,000
FLU
HOSPITALIZATIONS**



**24,000 - 81,000
FLU DEATHS**

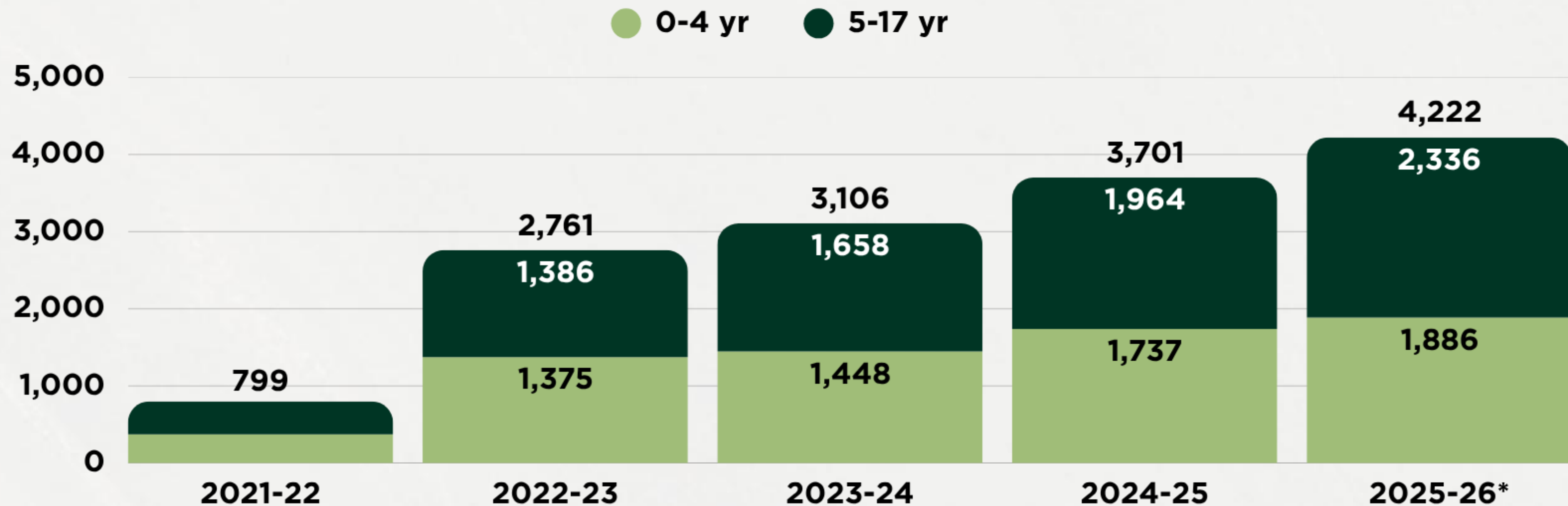
Influenza in Children

- Every year, 8-10% of U.S. children develop symptomatic influenza
- Hospitalization rates are highest in kids under 5 years of age
- 8-11% of hospitalized children experience neurologic complications (e.g., seizures, encephalopathy)
- Viral infections have been known to lead to invasive bacterial infections in kids, as well as acute necrotizing encephalopathy (ANE)

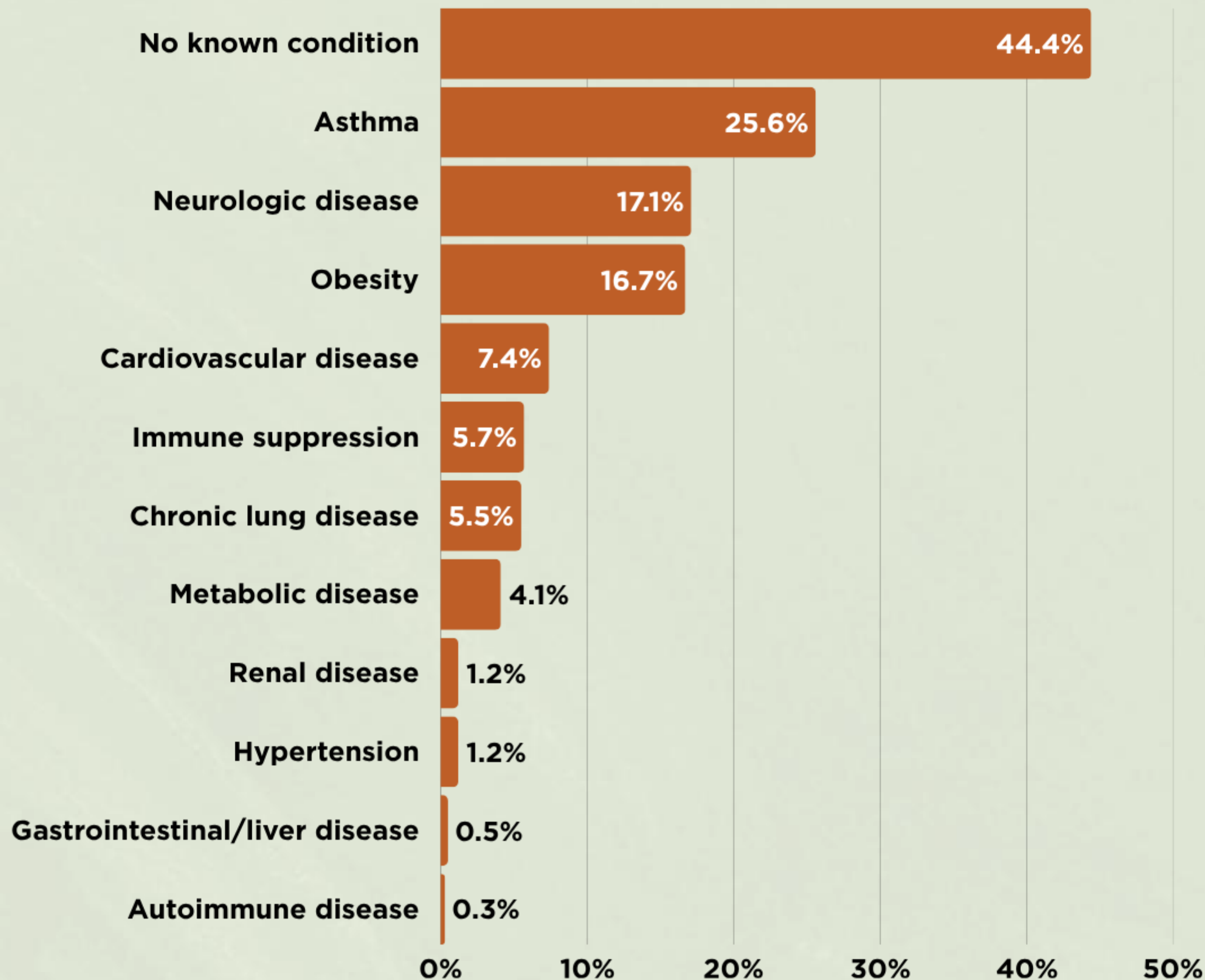


Influenza-Associated Hospitalizations by Age Group and Flu Season

As of August 2026



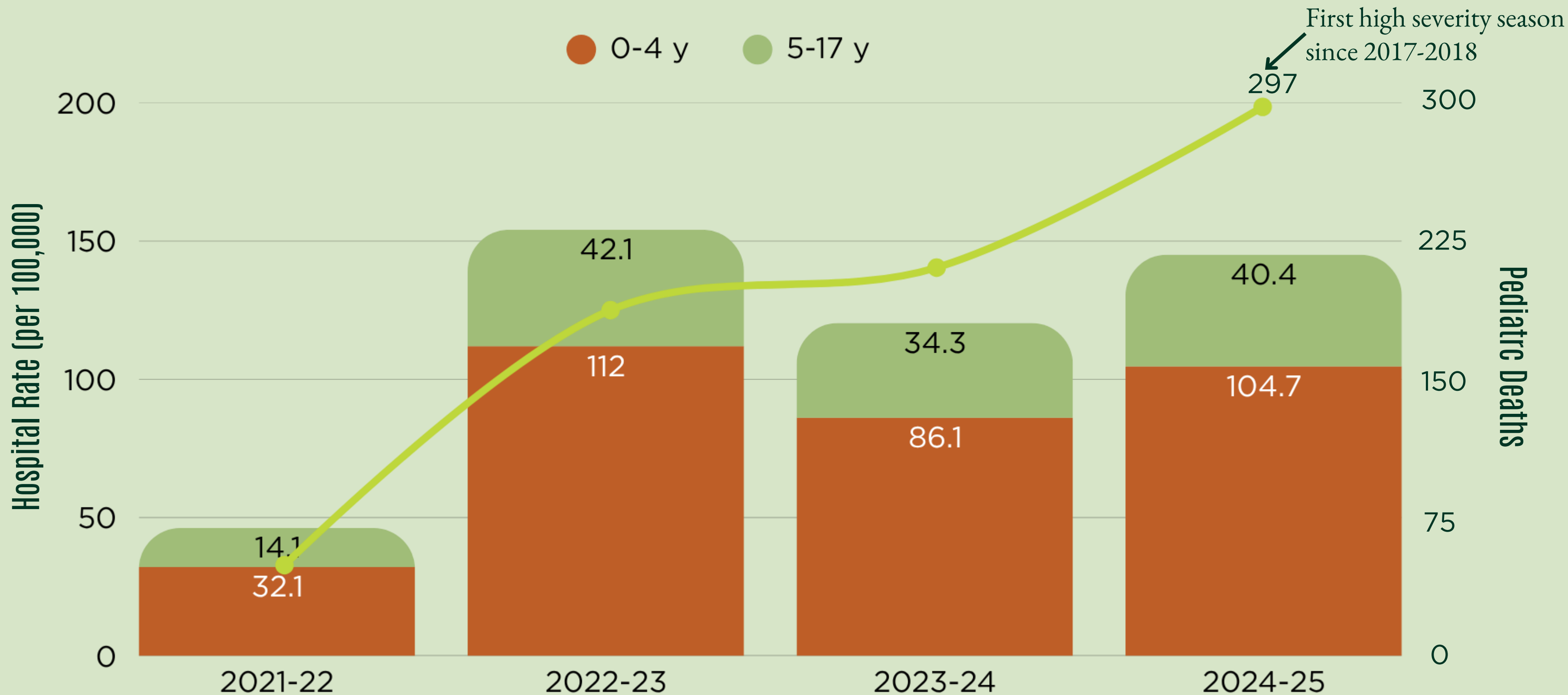
Pediatric (0-17) Influenza Hospitalizations by Selected Underlying Medical Conditions, 2025-26



Underlying Conditions Among Children Hospitalized with Influenza

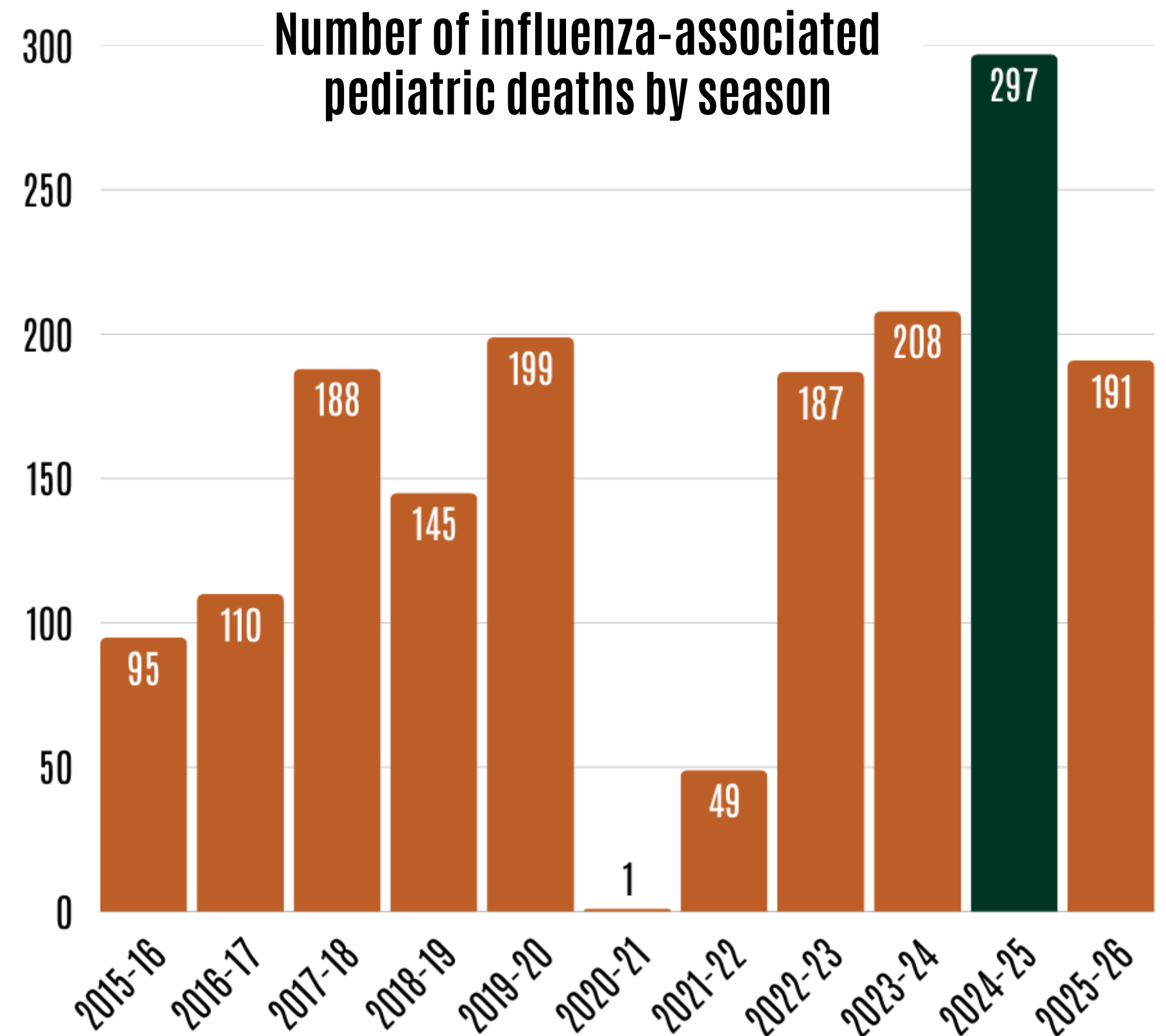
- Almost half of kids hospitalized with influenza **did not have any known health conditions**
- Among kids hospitalized with influenza, the following conditions were the most common:
 - Asthma (25.6%)
 - Neurologic disease (17.1%)
 - Obesity (16.7%)

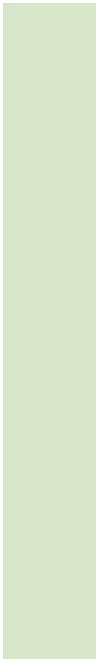
Summary of Recent Influenza Seasons in U.S.



Pediatric Influenza Deaths on the Rise

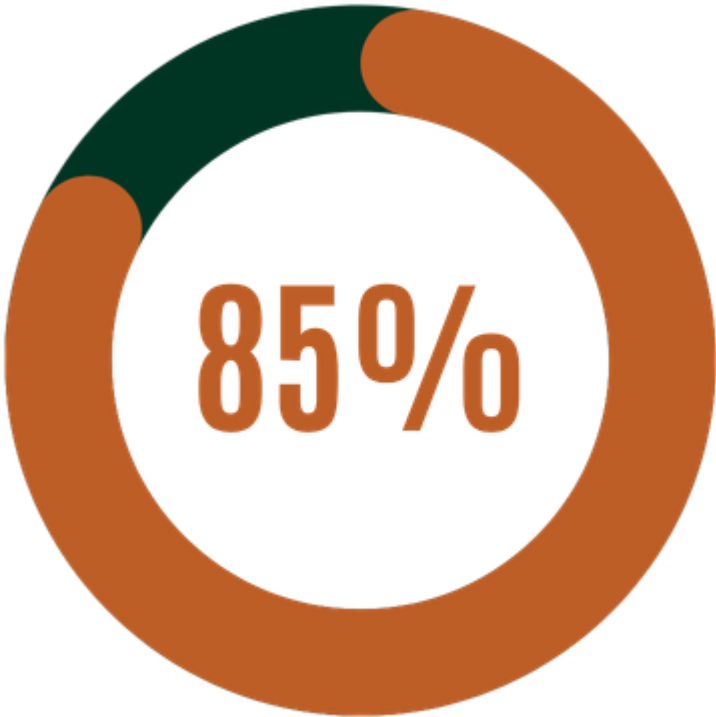
The 2024-25 season saw the highest number of pediatric flu deaths in 15 years.





191

INFLUENZA-RELATED PEDIATRIC DEATHS
IN THE 2025-2026 INFLUENZA SEASON*



occurred in children who
weren't fully vaccinated.**

*Data as of 8/19/26.

**Data as of 3/13/26.
CDC, 2026

Influenza Vaccines for Kids

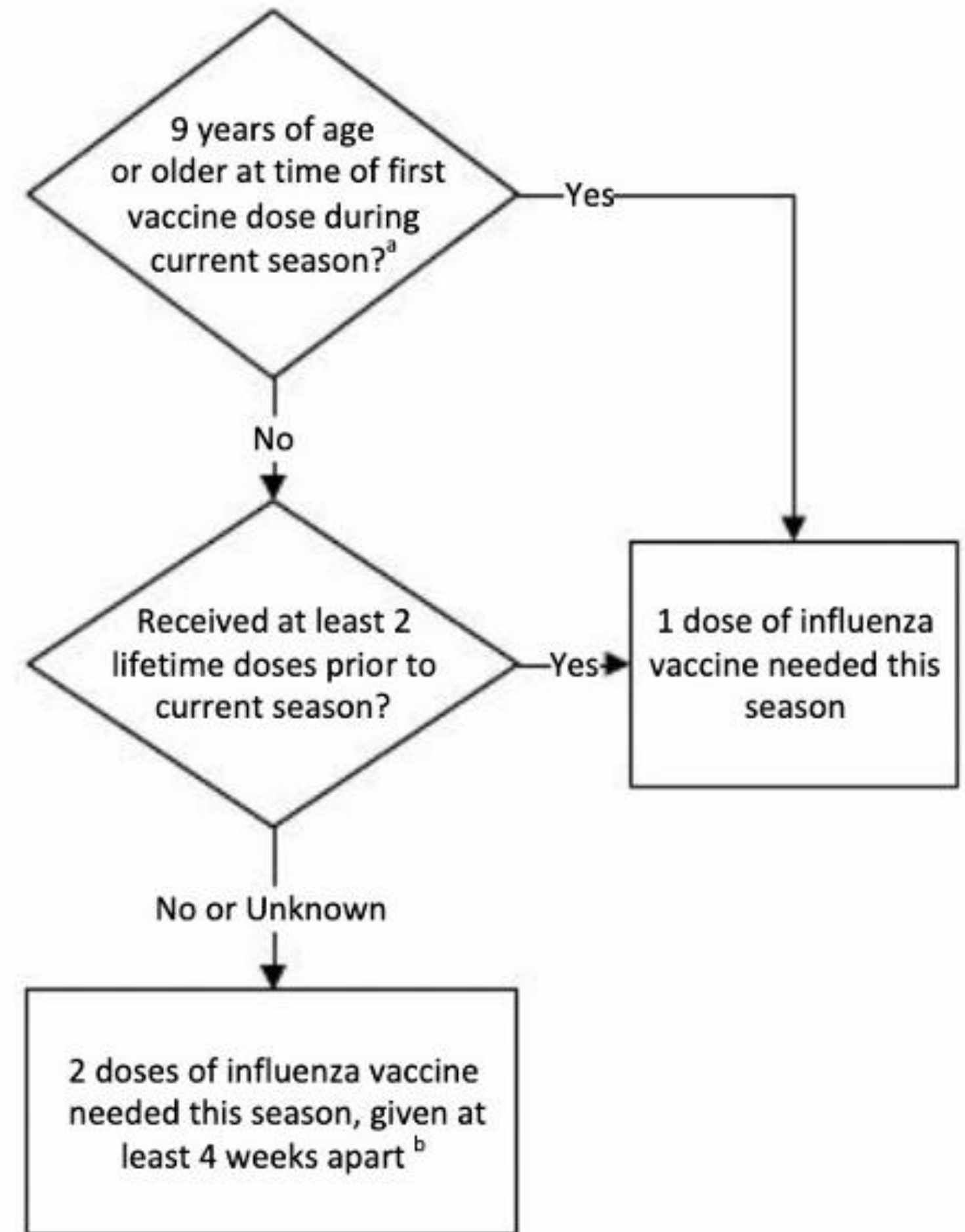
2026-2027
RECOMMENDATIONS & UPDATES

Influenza Vaccine

- Annual flu vaccine is recommended for **everyone 6 months and older**
- Recommended dose(s) ideally received by the end of October
- Pregnant/postpartum individuals should receive the flu vaccine
- Can be coadministered with other vaccines
- New option: mRNA vaccine - but **NOT** currently recommended for children

AAP Policy Statement, *Pediatrics*, August 2026.

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Impact of influenza vaccination

IN U.S. CHILDREN

Leonard et al, *Pediatrics*, 2026; CDC
NCIRD, Flu Burden, 2026



80%

REDUCED RISK
of children and teens
dying from influenza.

15,000

HOSPITALIZATIONS
prevented during 24-25
influenza season in children.

245

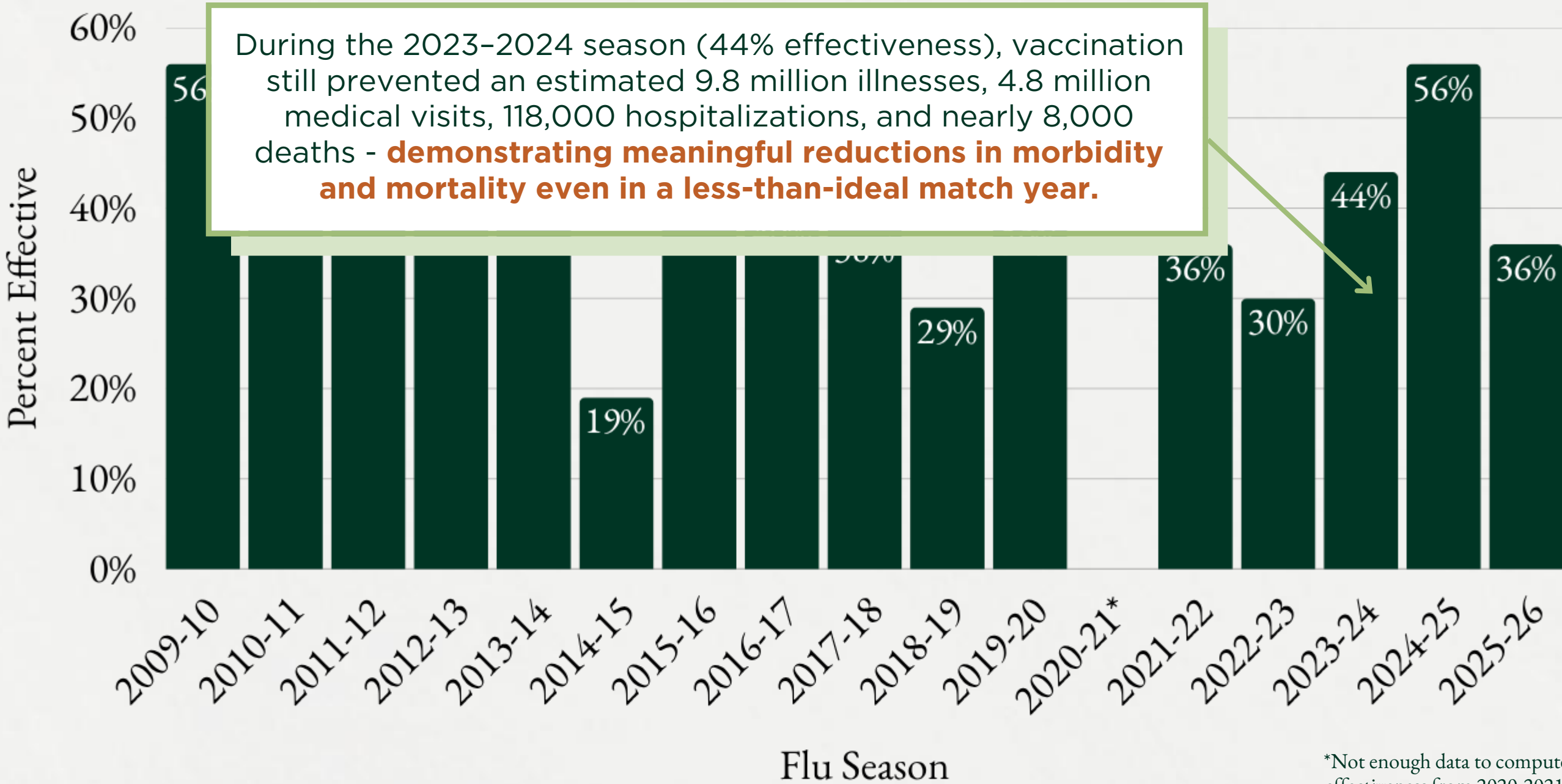
DEATHS
prevented during 24-25
influenza season in children.

Flu vaccines reduce the risk of death from severe influenza by **three to four times.**

- Spanish study analyzing data from 38+ countries and 6.5 million patients.
- Patient data from 2003 - 2023 found flu vaccination to be effective at reducing infection rates and flu-related complications in all age groups.

Flu Vaccine Effectiveness Over the Years (All Ages)

Flu vaccine effectiveness varies based on many factors – including the type of influenza circulating in a given year, and the age of the child vaccinated.



Pediatric Influenza Vaccine Effectiveness – 2024–25 Season



54%

against influenza-associated ED/UC* encounters



51%

against influenza-associated hospitalizations



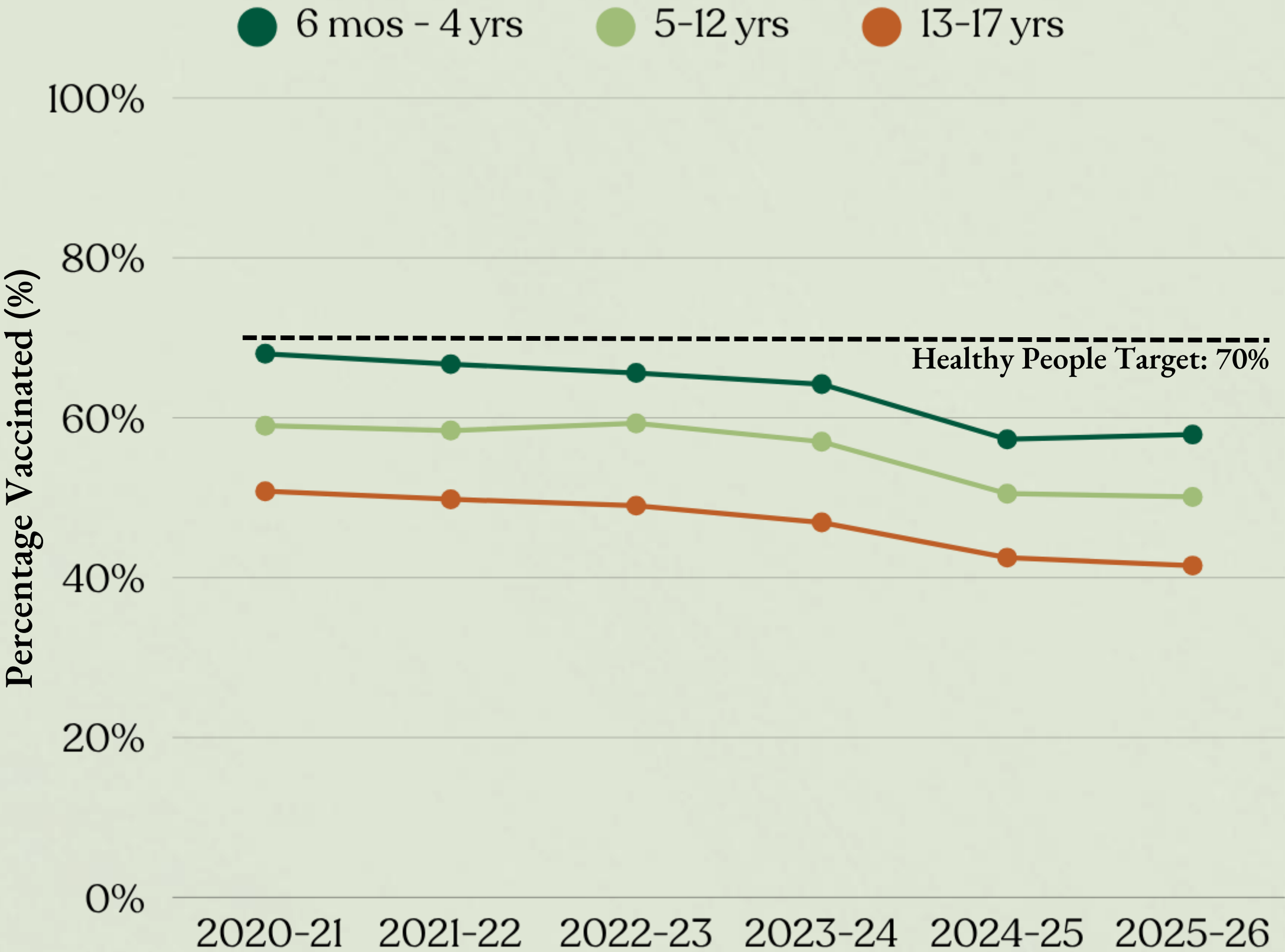
Lower vaccination uptake among children is associated with **increased** healthcare visits and hospitalizations and can accelerate influenza transmission across age groups, placing additional strain on healthcare resources.

United States 2025-2026 Pediatric Flu Vaccine Coverage

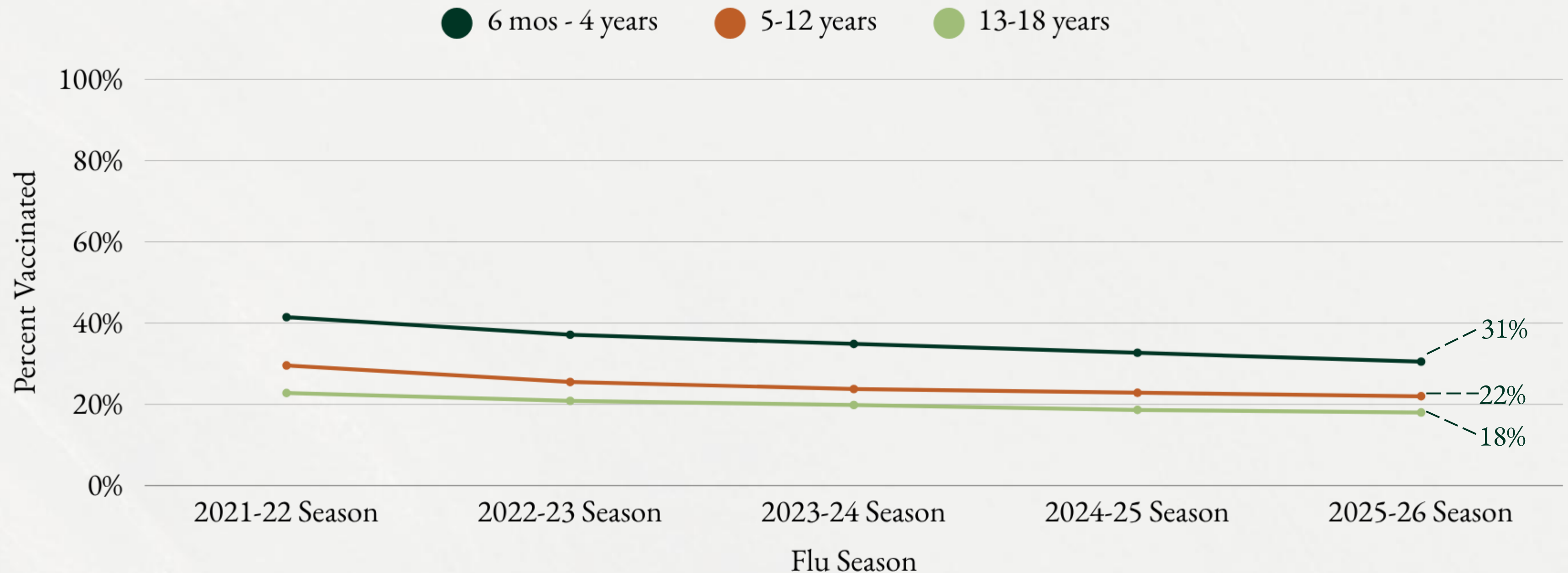
6 months - 4 years	57.9%
5-12 years	50.1%
13-17 years	41.5%

National pediatric flu vaccine rates continue to hover below the Healthy People 2030 target of 70% vaccination coverage.

Pediatric flu vaccine coverage by age group,
United States, 2020-2026



Coverage rates for North Dakota kids who received 1+ dose of flu vaccine during the respiratory season



If **70% of kids were vaccinated against flu** during a severe season, we could prevent:



2.2 million

pediatric outpatient
visits



30,494

pediatric
hospitalizations



123

pediatric deaths



Hundreds of millions of Americans have safely received flu vaccines for more than 50 years.

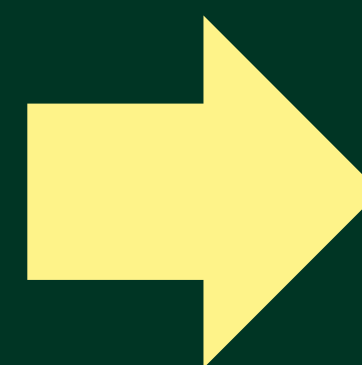
The body of scientific evidence from vaccine safety monitoring systems and scientific studies overwhelmingly supports their safety.

CDC Influenza Vaccine Safety, 2024.
Photo: WHO History of the Influenza Vaccine, 2022.
Image depicts people waiting for a flu vaccine in New Jersey in 1976.

Increasing vaccination rates
in schools may protect
unvaccinated students.

50%

vaccination rate among
school enrollees



54%

indirect protection to
unvaccinated children.

Knowledge Check

Which of the following best describes the health status of children hospitalized with influenza?

A

Nearly all hospitalized children have at least one underlying health condition.

B

Asthma is the only common underlying health condition among hospitalized children.

C

Almost half of hospitalized children with influenza have no known underlying health condition.

D

Obesity is more common than asthma among hospitalized children with influenza.

Knowledge Check

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Recap

INFLUENZA

- The 2025–2026 flu season was highly severe for children, resulting in at least 190 pediatric deaths.
- Everyone 6 months and older should get an annual flu vaccine
- Overall, influenza vaccines reduce the risk of children and teens dying from flu by 80%.
- Only 49.4% of children ages 6 months–17 years received a flu vaccine during the 2025-2026 season - similar to the previous season and well below the Healthy People 2030 goal of 70%.



How to Respond: Conversation pearls for influenza vaccine

Patient Concern: “My child is healthy. They don’t need a flu vaccine.”

AVOID:

Healthy kids can still get the flu.

TRY INSTEAD:

It’s great that your child is healthy - that’s one reason we want to help keep them that way. Flu can be unpredictable, even in otherwise healthy children, and vaccination is our best way to reduce their risk. What stands out to you about what I shared?

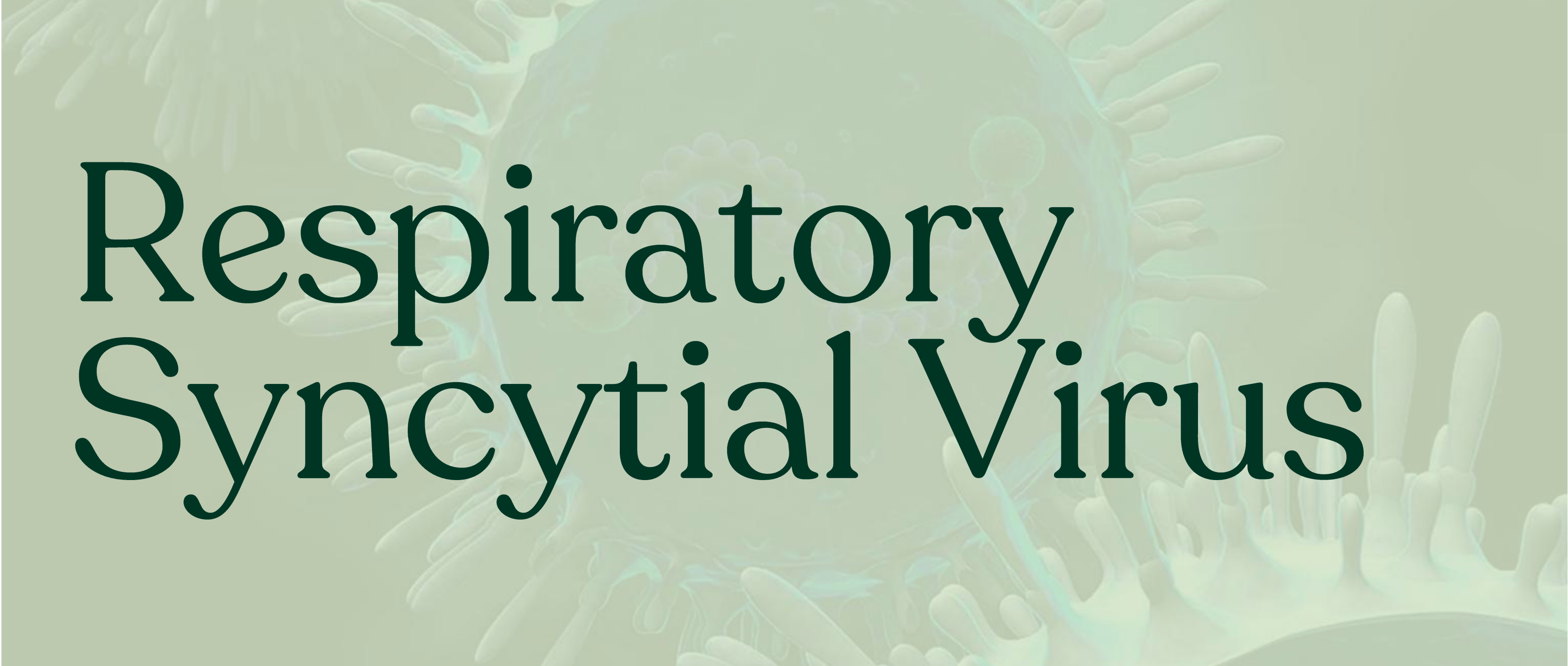
Patient Concern: “They got the flu vaccine last year and still got the flu.”

AVOID:

The vaccine works.

TRY INSTEAD:

I can understand why that would be frustrating. The flu vaccine doesn’t prevent every infection, but it can reduce the risk of getting sick and can make illness less severe if they do get flu. That protection is still valuable - it can mean less time sick, fewer missed days of school or work, and more time for your child to be doing the things they love.



Respiratory Syncytial Virus



RSV is the #1 cause of hospitalization among U.S. infants.

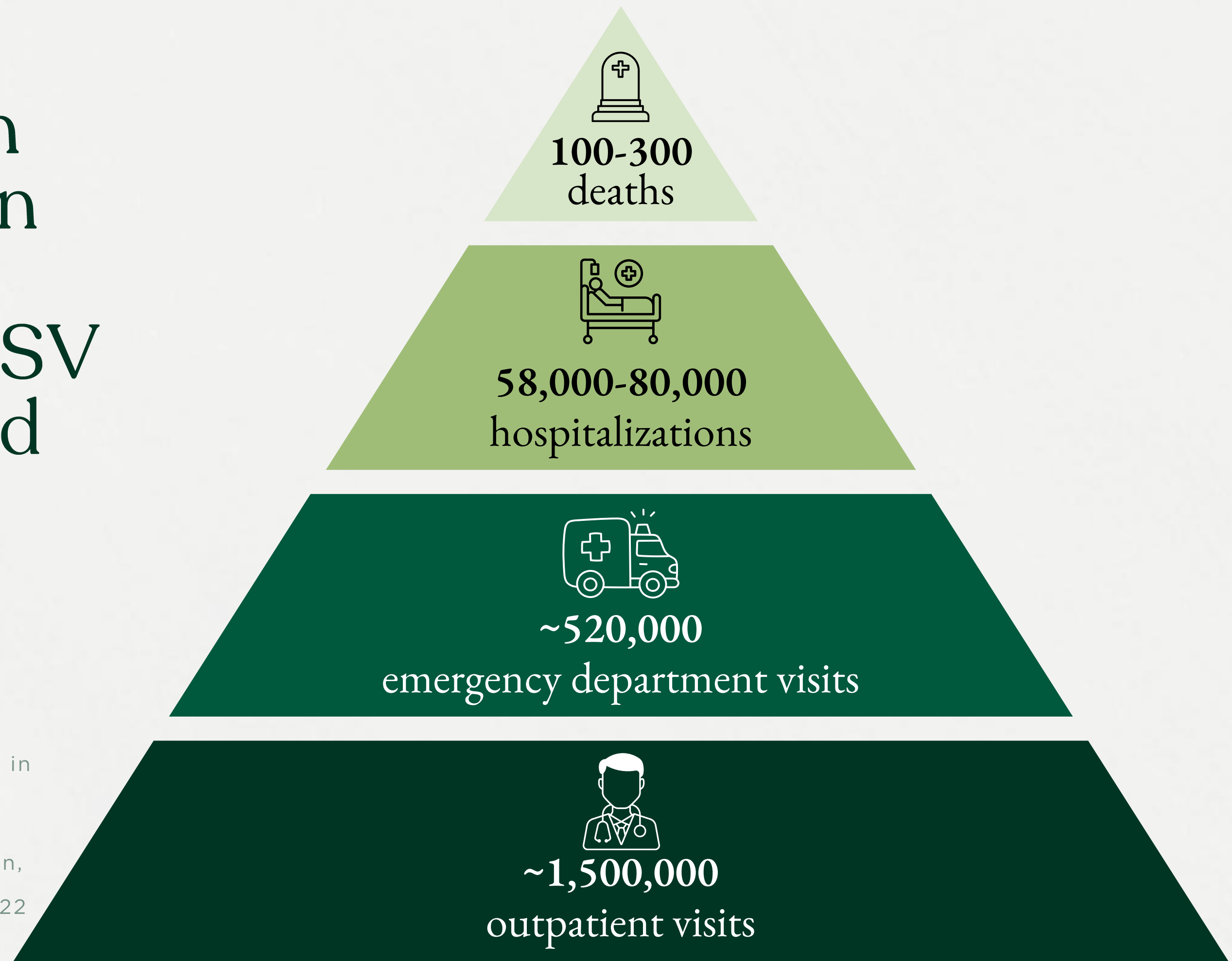


- Most infants (68%) are infected during their first year of life; nearly all (97%) by age 2
- Up to 3% of infants in their first year are hospitalized due to RSV each year in the US
 - Prematurity/chronic disease increases risk, but most hospitalizations (79%) are in healthy, term infants
 - Risk of hospitalization is 4-10 times higher among American Indian and Alaska Native children

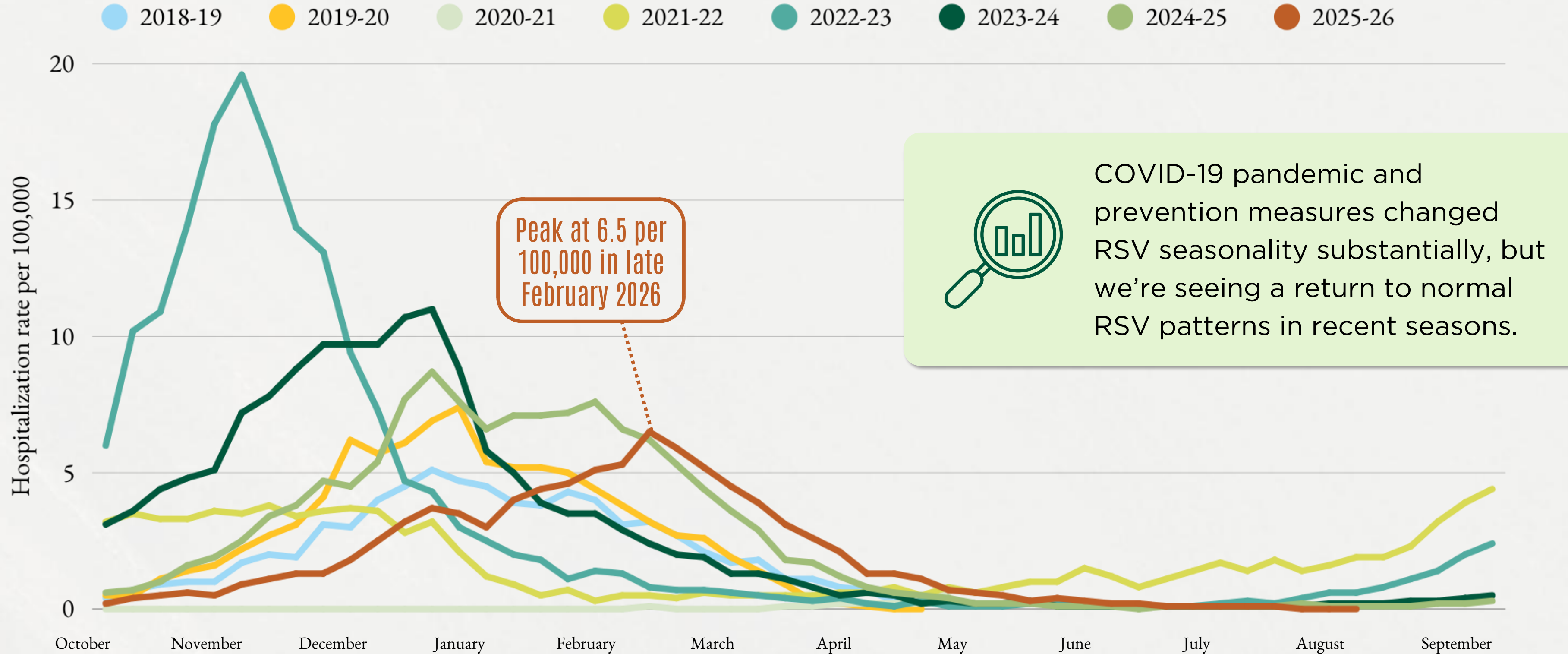
Each year in
U.S. children
less than 5
years old, RSV
is associated
with...

*Estimate 80,000 hospitalization in
infants <1 yrs

Thompson et al, JAMA, 2003;
Hansen et al, JAMA Network Open,
2022; Hall et al, NEJM, 2009;
McLaughlin et al, J Infect Dis, 2022



Weekly Rates of RSV-Associated Hospitalizations by Season, 0-17 Years



RSV Prevention for Kids

2026-2027
RECOMMENDATIONS & UPDATES

Three Options for Infant Protection

Target Population	Product Choice	Clinical Recommendation
Pregnant Patients	Maternal RSVpreF (Abrysvo)	Single dose for individuals 32-36 weeks gestation and who haven't received RSV vaccine in a previous pregnancy. Can be co-administered with other prenatal vaccines. Administration from September 1 - March 1.
Infants <8 Months	Nirsevimab (Beyfortus) or Clesrovimab (Enflonsia)	Single dose for infants born before or during 1st RSV season whose mother did not receive the maternal RSV vaccine during pregnancy. Administration from October 1 - March 31.
High-Risk Infants 8-19 Months	Nirsevimab (Beyfortus)	Single dose for high-risk infants entering their 2nd RSV season, regardless of whether mother received maternal RSV vaccine during pregnancy. Clesrovimab is not currently indicated for season 2. Administration from October 1 - March 31.

Seasonal Recommendations

It is important that babies have protection before RSV season peaks, typically between December and February.

Note: Eligibility for maternal RSV vaccine extended to March 1 (was January 31).

RSV vaccine (Abrysvo) recommended during weeks 32-36 of pregnancy.

Nirsevimab or clesrovimab recommended for infant.

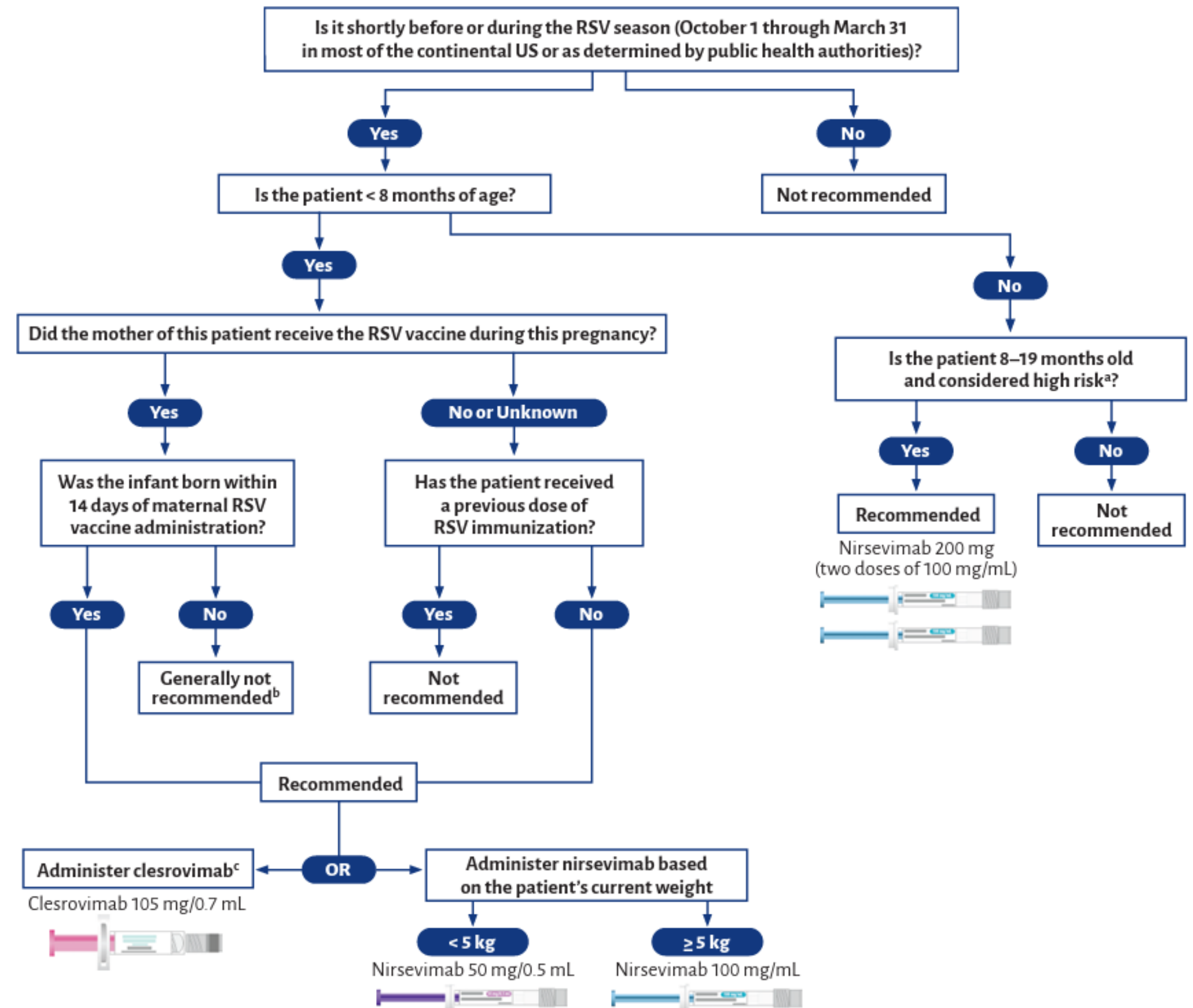


Immunizations are not recommended to protect infants outside of RSV season. Infants born in these months should receive **nirsevimab or clesrovimab** in October.

RSV Antibody Administration

October 1 - March 31 (for most of US)

- Give shortly before or during RSV season—or as soon as possible after birth for eligible infants born during the season.
- First season: Nirsevimab dose based on age and weight; clesrovimab standard dose
- Second season: Nirsevimab 200mg (2 x 100mg)



High-risk criteria for RSV immunization in children 8-19 months entering second RSV season


The AAP added 4 new risk conditions on September 2, 2026

Children with **chronic lung disease** attributable to prematurity or to other significant neonatal conditions (eg, meconium aspiration or congenital diaphragmatic hernia) **who required medical support** (ie, chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) at any time during the **6-month period before the start of the second RSV season**

Children with **severe immunocompromise**

Children with **cystic fibrosis** who have either:

- Manifestations of **severe lung disease** (previous hospitalization for pulmonary exacerbation in the first year after birth or abnormalities on chest imaging that persist when stable), or
- Weight-for-length that is **less than the 10th percentile**

American Indian or **Alaska Native** children

Children born **preterm**, at <32 weeks, 0 days' gestation, regardless of the need for medication or other support

Children with **hemodynamically significant congenital heart disease** (i.e., a defect that can result in symptoms and/or cardiac chamber dilation)

Children with **anatomic pulmonary abnormalities** or **neuromuscular disorders** that put them at risk for severe RSV disease

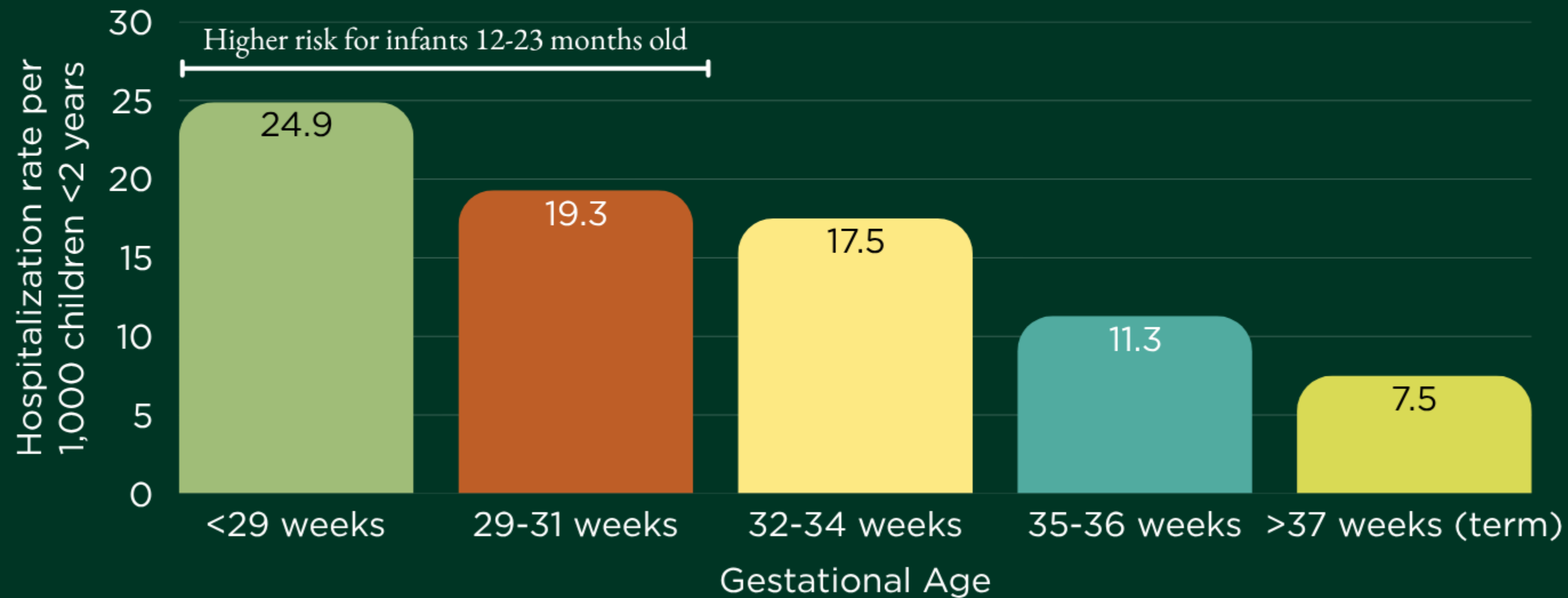
Children with **Down syndrome** or other **chromosomal differences** placing them at higher risk of severe RSV disease

Note: All ages refer to chronologic age, not corrected age for infants born preterm.
The AAP is working with insurance companies to promote coverage of the expanded indications.
Updated categories highlighted in yellow.

AAP Technical Brief, Pediatrics, 2026.

Evidence Behind the Recommendation: Preterm Birth

RSV-associated hospitalization rates for children under 2 years of age vary significantly by birth gestation



Risk remains elevated for earlier birth gestations in the second RSV season, leading to the AAP's new recommendation for infants born before 32 weeks' gestation.

Evidence Behind the Recommendation: Hemodynamically Significant Congenital Heart Disease (CHD)

Underlying heart disease can increase consequences of respiratory infection

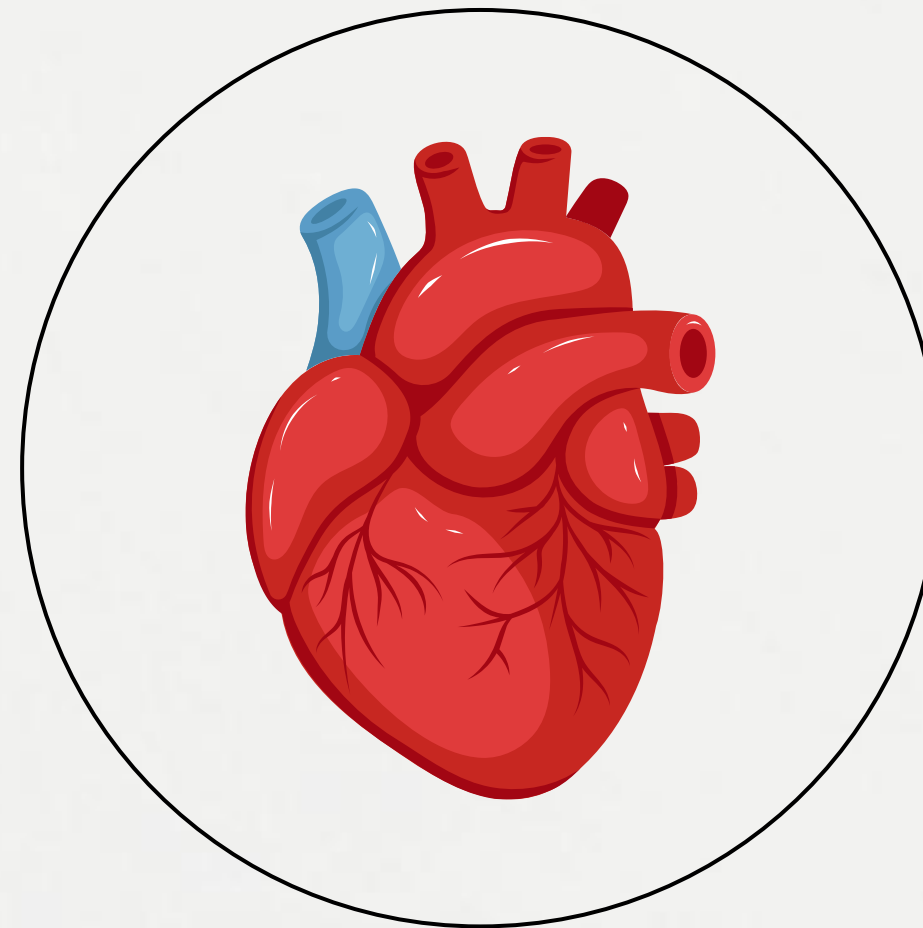
RSV risk persists

Second-season hospitalization risk was similar to first season among palivizumab-treated children with hemodynamically significant CHD.

Outcomes can be more severe

1.5%

mortality among RSV-hospitalized children with CHD ages 12-23 months – substantially higher than among children without CHD.



Who is most likely to benefit?

- Acyanotic CHD with medication for congestive heart failure (CHF) and anticipated cardiac surgery
- Moderate to severe pulmonary hypertension

**Consult with a pediatric cardiologist regarding RSV immunization for infants with cyanotic heart defects*

Generally not recommended:

Hemodynamically insignificant or adequately corrected lesions without medication for CHF, or mild cardiomyopathy without medical therapy.



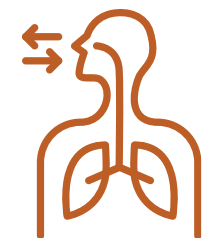
Vulnerability may persist into the second RSV season among children with neuromuscular disorders, particularly as some conditions progress over time.



6–10x higher RSV hospitalization rates have been reported among children with neuromuscular disorders compared with the general population.



Respiratory hospitalization was more common among children with anatomic airway abnormalities (13.6% vs. 6.0%).



Children with complex pulmonary or neuromuscular conditions may have **greater difficulty clearing respiratory secretions and breathing effectively** during RSV infection.

Evidence Behind the Recommendation: Anatomic Pulmonary Abnormalities or Neuromuscular Disorders

Conditions that impair cough strength, airway clearance, or respiratory muscle function may increase RSV risk. Examples include:

- Neurologic conditions
- Hypoxic-ischemic encephalopathy
- Traumatic brain injury
- Chromosomal abnormalities
- Metabolic disorders with neuro/muscular involvement
- Cerebral/degenerative central nervous system diseases
- Muscular dystrophies
- Neural tube defects
- Motor neuron diseases
- Epilepsy/recurrent seizures

Evidence Behind the Recommendation: Down Syndrome (DS) or Other Chromosomal Differences

Multiple features of Down syndrome can increase vulnerability to severe respiratory infections:

- Higher rates of congenital heart disease (~45% of children with DS)
- Airway abnormalities
- Muscle dystonia
- Immune dysfunction

INCREASED HOSPITALIZATION RISK

~6x higher risk of RSV-associated hospitalization in children with DS <2 years

HIGHER RISK EVEN WITHOUT CHD

~6x higher hospitalization risk even among children with DS **without** congenital heart disease (CHD)

GREATER SEVERITY WHEN HOSPITALIZED

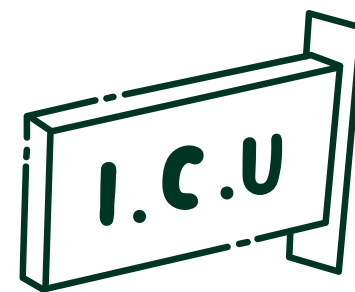
Children with DS hospitalized with RSV have longer stays and greater need for oxygen, assisted ventilation, and ICU care

Pediatric Nirsevimab Effectiveness



64-93%

effective against RSV hospitalization



76-90%

effective against RSV ICU admission

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Senerth et al., JAMA, 2026.

Additional Protections?

POSSIBLE PROTECTIVE EFFECT FOR INVASIVE PNEUMOCOCCAL DISEASE

A French study showed infants who received nirsevimab were ~35% less likely to be hospitalized for invasive pneumococcal disease over 6 months.

NIRSEVIMAB VS. MATERNAL VACCINATION

A separate French study comparing nirsevimab and maternal vaccination found infants who received nirsevimab had a lower risk of RSV-related hospitalization and were also less likely to need intensive care, ventilation, or supplemental oxygen.



ON THE RADAR

- No significant difference in RSV-related hospitalization was seen during the second year after nirsevimab receipt.
- Small increases in ENT bacterial infections and asthma hospitalizations in second RSV season were observed after nirsevimab, but these findings were based on few events and need further study.

Clesrovimab: What's New?

FIRST-SEASON EVIDENCE

Strong protection against severe RSV disease

Phase 2b/3 CLEVER trial in healthy preterm (>29 weeks' GA) and full-term infants



60.4%

efficacy against medically-attended LRTI



84.2%

efficacy against RSV-associated hospitalization

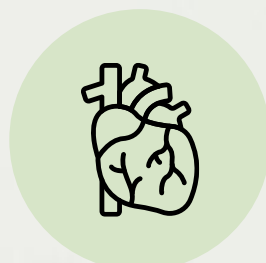
DATA IN HIGH-RISK INFANTS

Comparable outcomes to palivizumab

SMART trial evaluated infants at increased risk for severe RSV disease, including:



Preterm (<35 weeks) with chronic lung disease



Hemodynamically significant CHD

During the first RSV season, RSV-associated medically-attended LRTI and hospitalization were similar between clesrovimab and palivizumab groups.

LOOKING AHEAD

Second-season use is being evaluated

SMART trial data evaluated a 210mg dose in the second RSV season for high-risk children

In a palivizumab-controlled trial, clesrovimab was well-tolerated in the second season and had comparable results to the control for medically-attended LRTI and hospitalization.



An expanded indication is under FDA review for children at increased risk of severe RSV disease entering their second season, potentially for the 2027-2028 season.

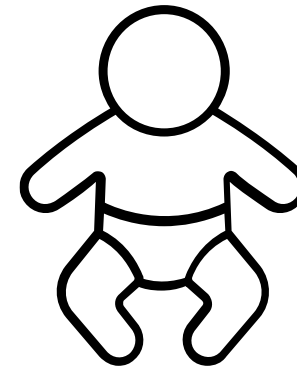
Maternal RSV Vaccine Effectiveness

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51-70%

effective against RSV hospitalization
(Shittu et al., 2026; Moline et al., 2026)



74%

effective against infant RSV illness
(Scruzzi et al., 2025)



82.1%

effective against RSV illness among
pregnant vaccinees
(Kitano et al., 2026)

Senerth et al., JAMA, 2026.

Maternal RSV Vaccine Safety

Most common side effects: pain at injection site, headache, myalgia, nausea

Preterm birth

- Clinical trials suggested potential link.
- Multiple real-world studies and postmarketing data continue to show **no increased risk of preterm birth.**

Hypertensive disorder

- Some data suggests a possible, small increased risk of hypertensive pregnancy disorder among vaccinated individuals. But findings may relate to residual confounding and require further research. Ongoing monitoring is continuing to better clarify risk.



The benefits of maternal RSV vaccination outweigh potential risks, with RSVpreF demonstrating substantial efficacy against severe RSV disease in infants and a favorable safety profile.

Advantages

Disadvantages

Maternal RSV Vaccine



- Immediate protection for baby at birth and for first 6 months of life
- Reduces number of vaccines for infant at birth
- Can be given with other vaccines in pregnancy
- Possible maternal protection from RSV

- Potentially reduced protection in some situations (e.g., pregnant person is immunocompromised or infant born soon after vaccination)
- Potential risk of hypertensive disorders of pregnancy

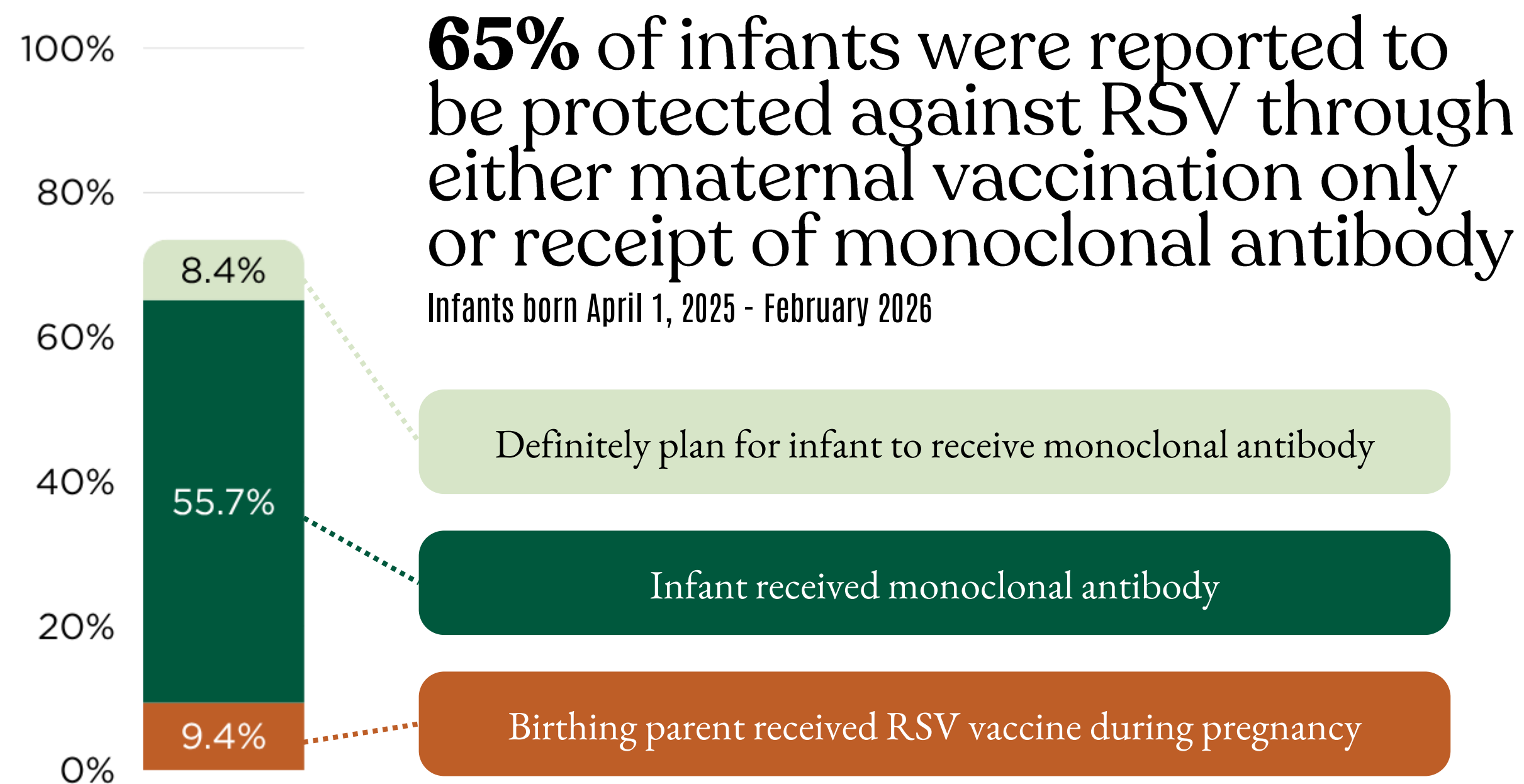
Infant RSV Antibody

Nirsevimab & Clesrovimab



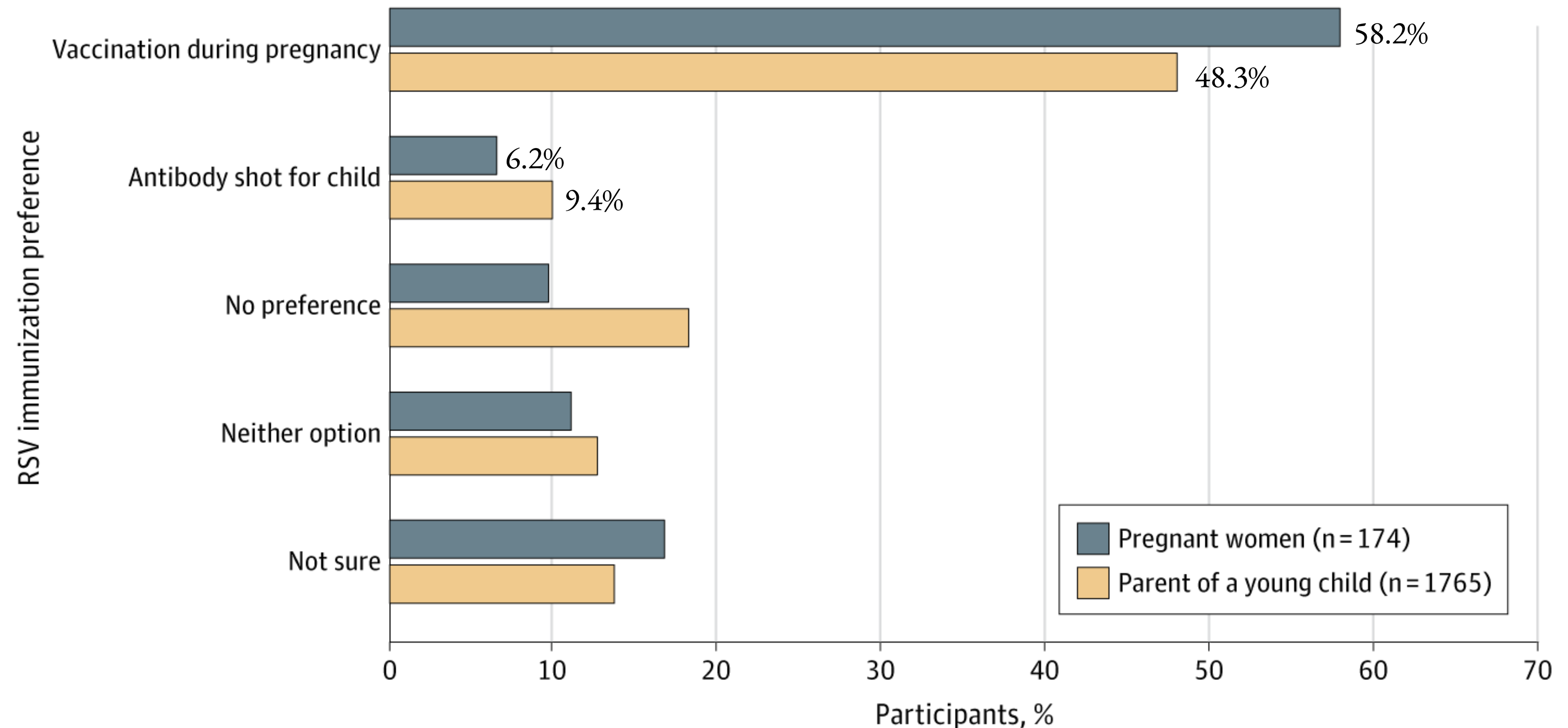
- Protection may wane more slowly than from maternal RSV vaccine (protection for up to 150 days after administration)
- Direct receipt of antibodies rather than relying on transplacental transfer
- No risk for adverse pregnancy outcomes
- Possible protection from invasive pneumococcal disease

- Requires infant injection
- Delay in administration could leave the infant unprotected
- Is more susceptible to the development of resistance through mutations of RSV preF



When given a choice, parents and pregnant women preferred maternal vaccination over the infant antibody shot

National survey of 174 pregnant women and 1,765 parents of young children (0-5 yrs), April 2024



RSV Prevention: Intentions & Preferences

National survey of 174 pregnant women and 1,765 parents of young children (0-5 yrs), April 2024

55.5%

of eligible pregnant women

reported a positive intention toward maternal RSV vaccination during pregnancy

55.7%

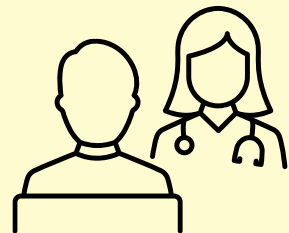
of pregnant women

reported a positive intention to get the RSV antibody shot for their child, if eligible

59.8%

of parents

reported a positive intention to get the RSV antibody shot for their child, if eligible



Among those with negative/unsure intentions, 27-35.8% said they would probably or definitely receive it if their health care provider strongly recommended it.

Top reasons for hesitancy among those with negative/unsure intentions:

1

Don't know enough about RSV or its vaccine to make a decision

2

Concerns about long-term safety

3

Concerns about short-term safety

Knowledge Check

Which infant would be an appropriate candidate for a **second-season dose** of nirsevimab during the 2026–2027 RSV season?

A

A 10-month-old child with mild cardiomyopathy without significant cardiac dysfunction

B

A 17-month-old child born at 30 weeks' gestation who did not require additional medical support

C

A 9-month-old child with no underlying medical conditions entering their second RSV season

D

A 20-month-old Alaska Native child who received clesrovimab during their first RSV season

Knowledge Check

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A 20-month-old Alaska Native child who received clesrovimab during their first RSV season

Recap

RSV

- RSV is the most common cause of hospitalization among infants
- Three options for prevention: monoclonal antibody for the infant (nirsevimab and clesrovimab) or maternal RSV vaccine
 - All three options are safe and effective; preference may vary based on patient situation
- Updates:
 - Expanded high-risk classifications for nirsevimab second-season administration
 - Maternal RSV vaccine can be administered from September 1 - March 1



How to Respond: Conversation Pearls for RSV Prevention

Patient Concern: “I’m worried about whether this is safe for my baby.”

AVOID:

“It’s safe and has been studied extensively.”

TRY INSTEAD:

“It makes sense to want to make sure anything we give your baby is safe. Our goal is to give your baby protection while keeping risks as low as possible. We have safety information from clinical studies and ongoing monitoring, and based on what we know, I recommend monoclonal antibodies because it can help protect your baby from serious RSV illness.”

Patient Concern: “I’m already getting so many things during pregnancy.”

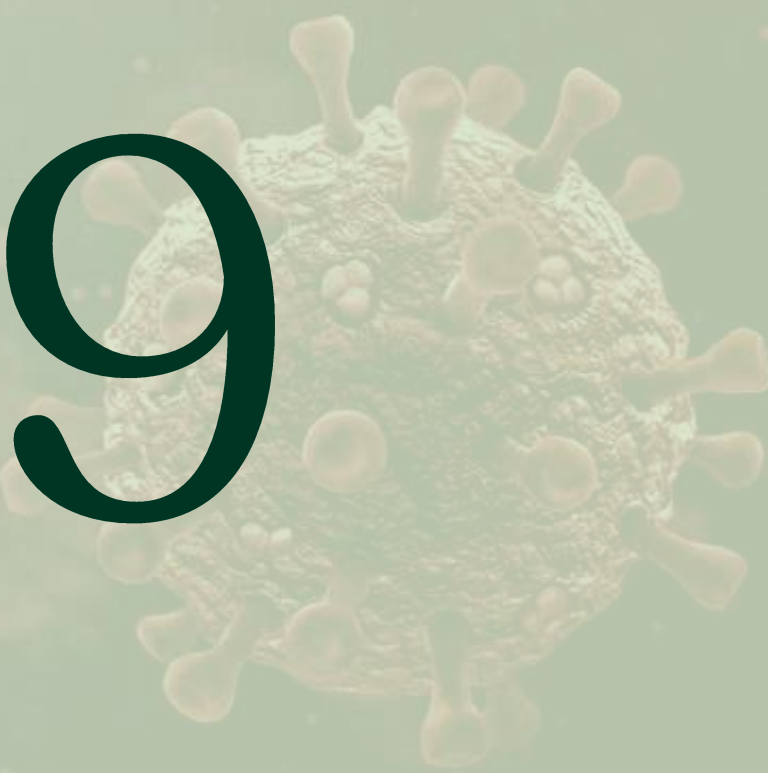
AVOID:

“Trust me, it’s really important that you get this vaccine.”

TRY INSTEAD:

“It can definitely feel like there’s a lot to keep track of during pregnancy. The reason we recommend RSV vaccination during pregnancy is that it gives you time to make antibodies that can reach your baby before birth. That way, your baby can have protection from the beginning of those vulnerable first months.”

COVID-19



Clinical Presentation: SARS-CoV-2

Among symptomatic infection, common symptoms for currently circulating variants include:



Fever



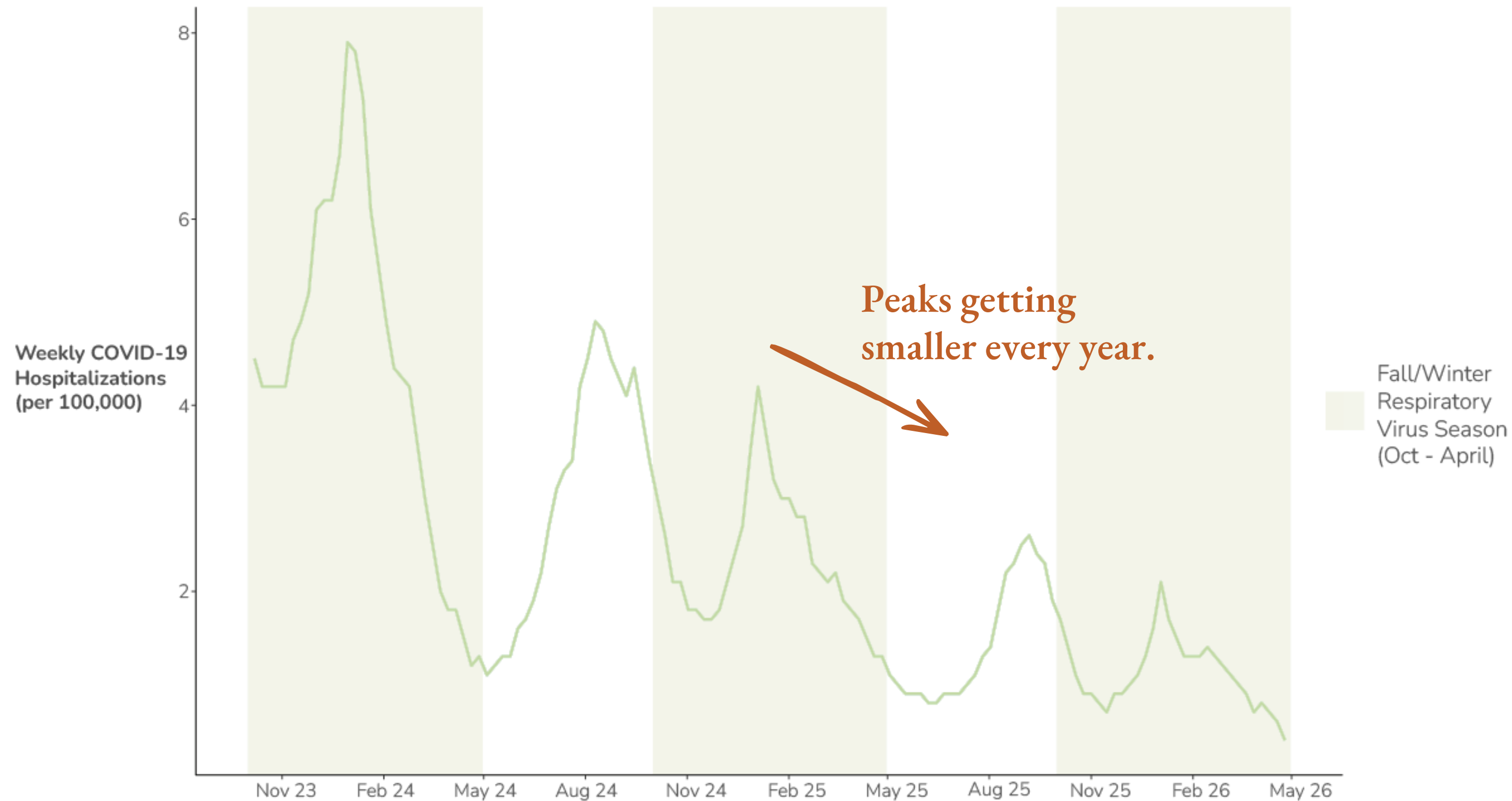
Chills



Sore Throat

ALTHOUGH MOST INDIVIDUALS EXPERIENCE ASYMPTOMATIC, MILD, OR MODERATE ILLNESS, SARS-COV-2 INFECTION AND ASSOCIATED COMPLICATIONS CAN PROGRESS TO SEVERE DISEASE REQUIRING HOSPITALIZATION AND, IN THE MOST SEVERE CASES, RESULT IN DEATH.

Covid-19 Hospitalizations – Seasonality Changes



AS OF AUGUST 2026:
COVID-19 cases are rising in many parts of the U.S., continuing a pattern of summer and winter spikes seen in recent years.

Even with lower rates of hospitalization than earlier in the pandemic, **this remains a substantial burden - especially for those at extremes of age.**

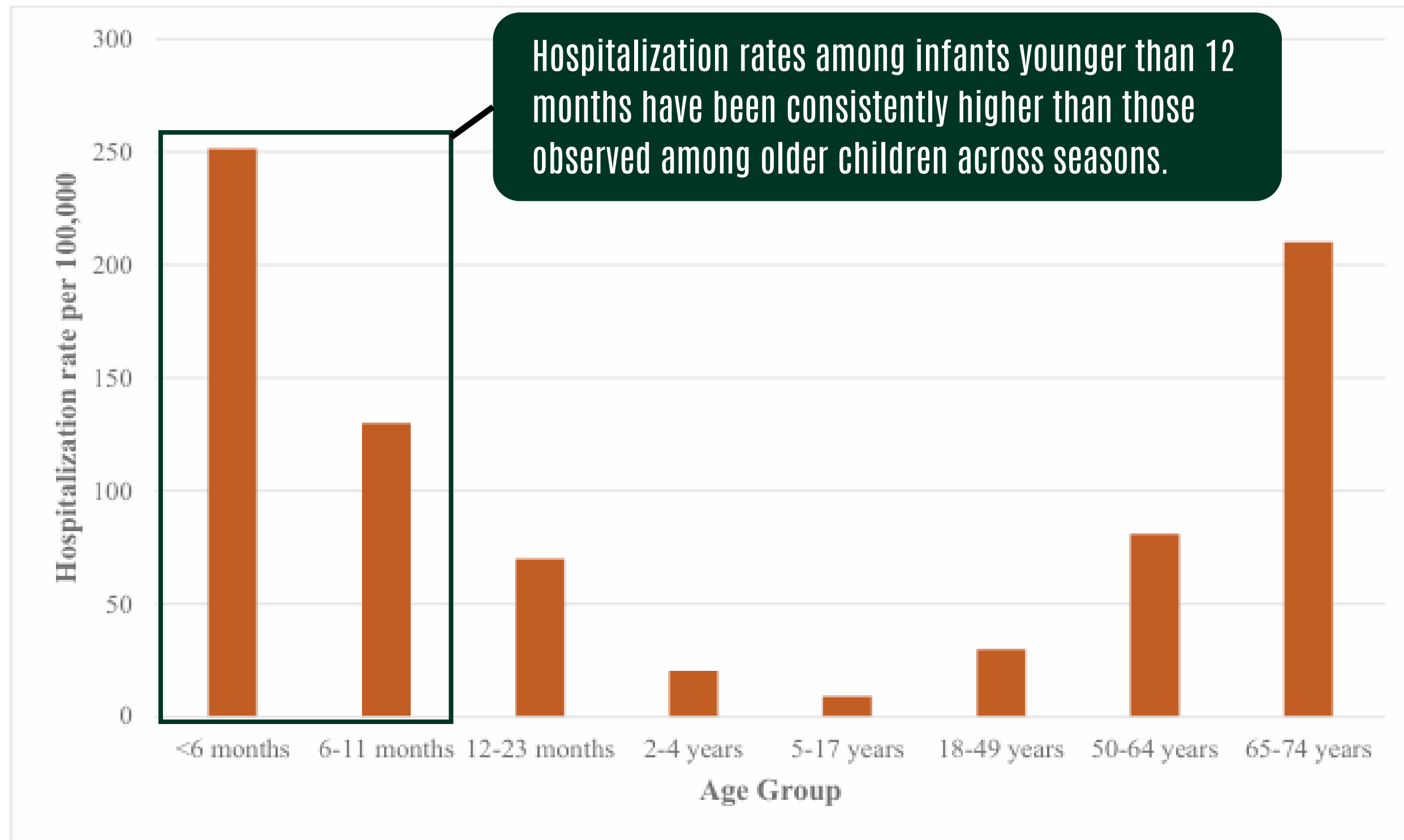


Who is being hospitalized?

- 1 in 4 children hospitalized with COVID required ICU care.
- 86% of children hospitalized were NOT up to date with COVID-19 vaccination.
- Over HALF of children hospitalized for COVID had NO underlying medical conditions.

Infants Face a Much Higher Risk of COVID-19 Hospitalization

Cumulative rate of COVID-19-associated hospitalizations by age group, Oct 2024 - Sept 2025



As of July 2026, the highest weekly hospitalization rate among infants in the 2025-26 season was

**10X
HIGHER**

than the peak rate observed **among children overall.**

COVID-19 in Infants:

**STILL A SERIOUS
RESPIRATORY THREAT**

During the post-Omicron period (Oct 2022 - April 2024) children 6-23 months olds accounted for

45% of COVID hospitalizations

among vaccine-eligible kids

~40% experienced severe COVID



1 in 4 required intensive care

Even as overall pediatric morbidity and mortality declined during this period.



Pediatric COVID-19 Deaths Still Occur—Especially Among Younger Children

76% of pediatric COVID-19 deaths in 2024-25 occurred among children <4 years

Young children continue to account for a disproportionate share of pediatric COVID-19 deaths.

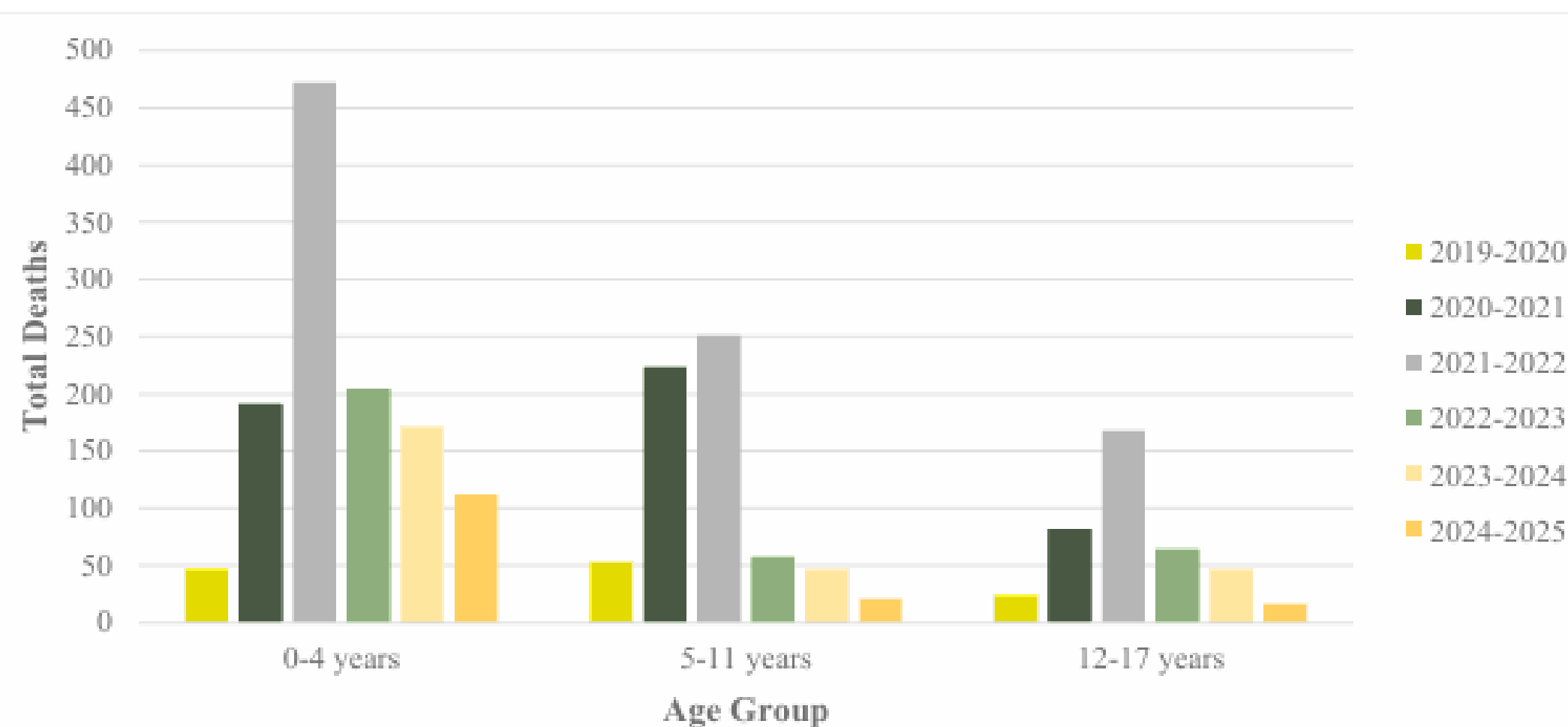


Higher-risk children remain particularly vulnerable.

Children with certain underlying conditions, especially those who are immunocompromised, are at increased risk for severe disease, hospitalization, and death.

AAP, AAP Technical Report, 2026, Lisbon et al, JAMA, 2026; CIDRAP, 2026

U.S. Pediatric COVID-19-Associated Deaths by Season and Age Group





Long Term Effects of COVID-19 Infection

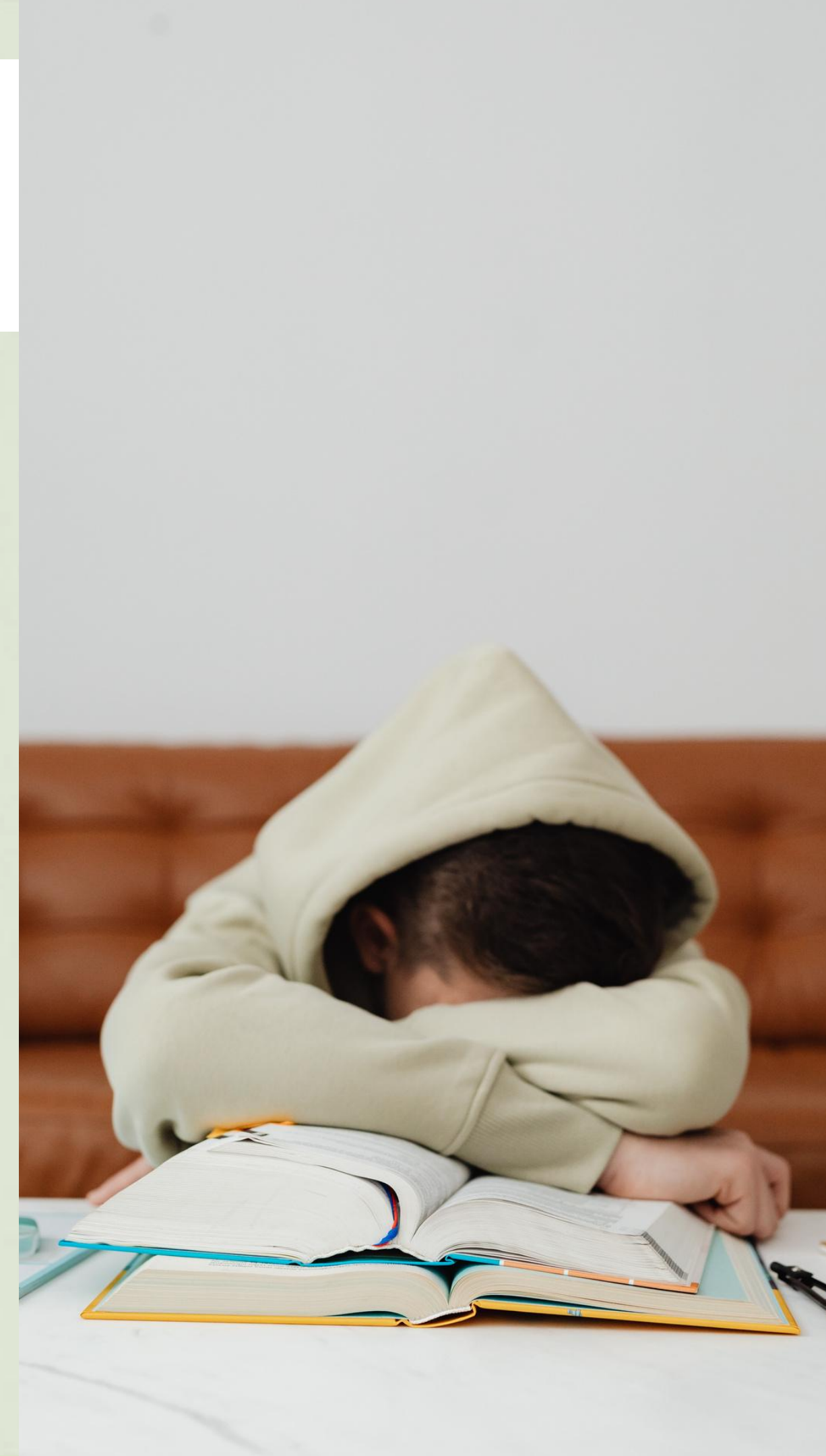
IN KIDS

Long COVID in Kids

What we know today.

- ~1–10% of children may experience long COVID (PASC - Post-acute sequelae of SARS-CoV-2) symptoms
- Risk appears lower with newer variants, but not zero
- Reinfection increases risk
- Most common symptoms:
 - Fatigue, headache, sleep & concentration issues
- Symptom likelihood may vary depending on age:
 - 0- 5 years: fever, persistent dry cough
 - Older children: 1+ multisystem symptom
- Prevention matters (vaccination + reducing infection)

Buonsenso, *The Lancet*, 2026; Zang et al, *The Lancet*, 2026; CIDRAP, 2026;
AAP, *AAP Technical Brief*, 2026



Long COVID in Kids

What's new?

Reinfection matters

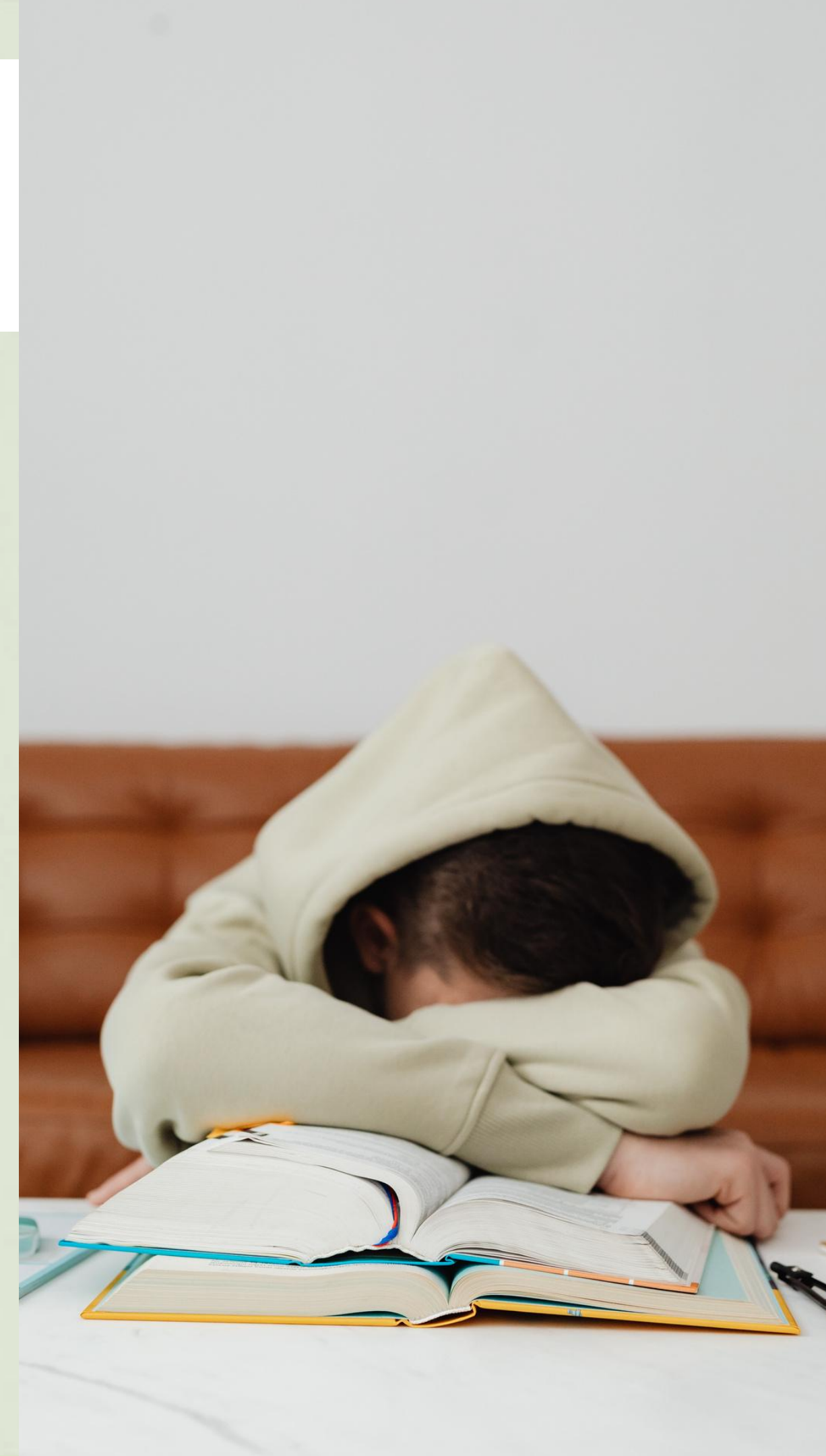
- Reinfection is associated with greater long COVID risk among children and adolescents.

Impacting school performance

- Pediatric long COVID can affect school functioning, including negatively impact academic performance, attention, and peer interactions.

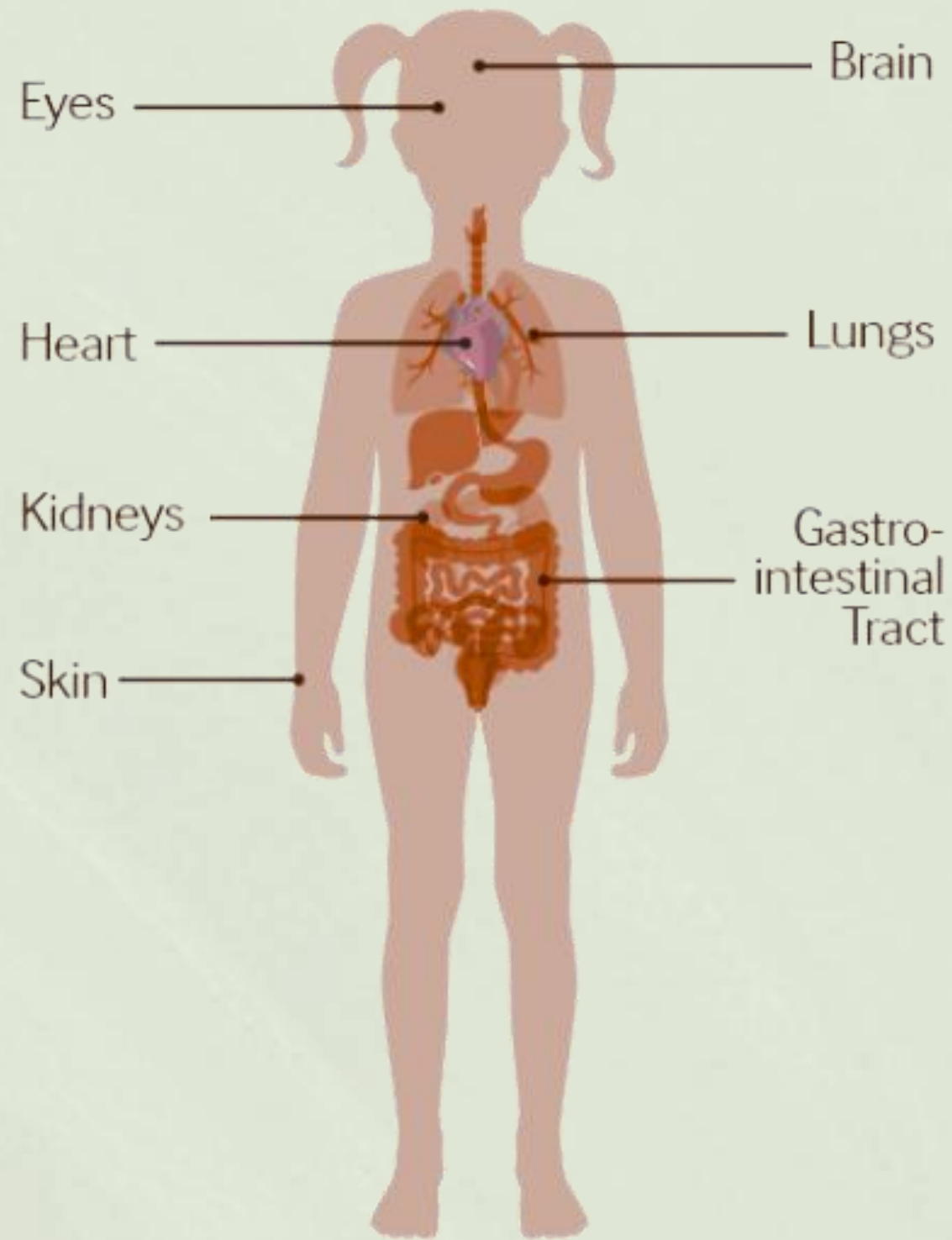
Science is advancing

- Researchers are identifying potential biological markers of pediatric Long COVID, strengthening evidence that it is a biologically based post-infectious condition.



Multisystem inflammatory syndrome in children (MIS-C)

Where are we now?



MIS-C has become less prevalent since the start of the pandemic

- <1% of children with confirmed COVID-19 developing MIS-C
- Vast majority of recent MIS-C cases occurred in unvaccinated children

However, when it occurs, MIS-C is associated with increased risks of cardiovascular, neurological, respiratory, gastrointestinal, and hypertensive disorders that can persist for up to 4.5 years after illness.

MIS-C is now very rare, much less common than at the height of COVID, and largely preventable with vaccination.

Conversation pearl:

“Who does your child spend time with who you'd especially want to protect?”

Small Gatherings Can Have A Big Ripple Effect

1.1 million grandparents and 961,000 grandchildren were included in a nationwide Danish cohort. What they found:

- Grandparents had a 9.9% higher risk of SARS-CoV-2 infection in the 7-day period following a grandchild's birthday.
- The association was stronger following birthdays of preschool-aged children (15% higher risk) than school-aged children (7% higher risk).
- The authors suggest that small family gatherings can be an important pathway for transmission to older adults.



COVID-19 Vaccines for Kids

2026-2027
RECOMMENDATIONS & UPDATES

2026-27 COVID-19 vaccines will:



Target XFG subvariant, which comes from the JN.1 lineage covered by last years vaccines.



Be "monovalent," meaning it is designed to protect against only one type of viral strain.



Continue to be monitored to assure their safety and effectiveness, along with the evolution of the SARS-CoV-2 virus.

COVID Vaccines Available in U.S. for Pediatric Population, 2026–27 Season

Vaccine Platform	Trade Name	Authorized Age Group	Manufacturer
mRNA	Spikevax	≥6 months and older	Moderna
mRNA	mNEXSPIKE	≥12 years	Moderna
mRNA	Comirnaty	≥5 years	Pfizer-BioNTech
Adjuvanted protein	Nuvaxovid	≥12 years	Sanofi

All COVID-19 vaccines listed are monovalent and contain the XFG antigen for the 2026–2027 season.

AAP 2026–27 Season COVID-19 Vaccine Recommendations

Moderately or Severely Immunocompromised

6 months - 18 years: 2 or more doses
may be needed, depending on previous
vaccination history. Follow the AAP
dosing schedule.

6-23 Months	2-18 Years
Recommended for all (all considered high risk)	Risk Based + Parent/Guardian Preference
All children without contraindications Previously unvaccinated → Initial series Incomplete initial series → Complete series Completed initial series → 1 dose ≥8 weeks after last dose Previous infection? → Still vaccinate	1 dose recommended (regardless of prior COVID-19 vaccination status) if the child: Is at high risk for severe COVID-19 Live in long-term care/congregate setting Has never received a COVID-19 vaccine Has a household contact at high risk for severe COVID-19 Not in these groups? → Offer 1 dose if parent/guardian desires protection ≥8 weeks after last dose

What is considered “high risk” among kids.

6-23 months of age

Recommended for all children in this age group.

Moderately/severely immunocompromised

Have a medical condition associated with severe COVID-19

Including chronic pulmonary or cardiovascular disease; neurologic or neurodevelopmental conditions; diabetes, obesity, or other metabolic disorders; sickle cell disease; chronic liver or GI disease; and rheumatologic/autoimmune conditions.

Live in a long-term care or other congregate setting or have a household contact at high risk for severe COVID-19.

Have never received a COVID-19 vaccine.



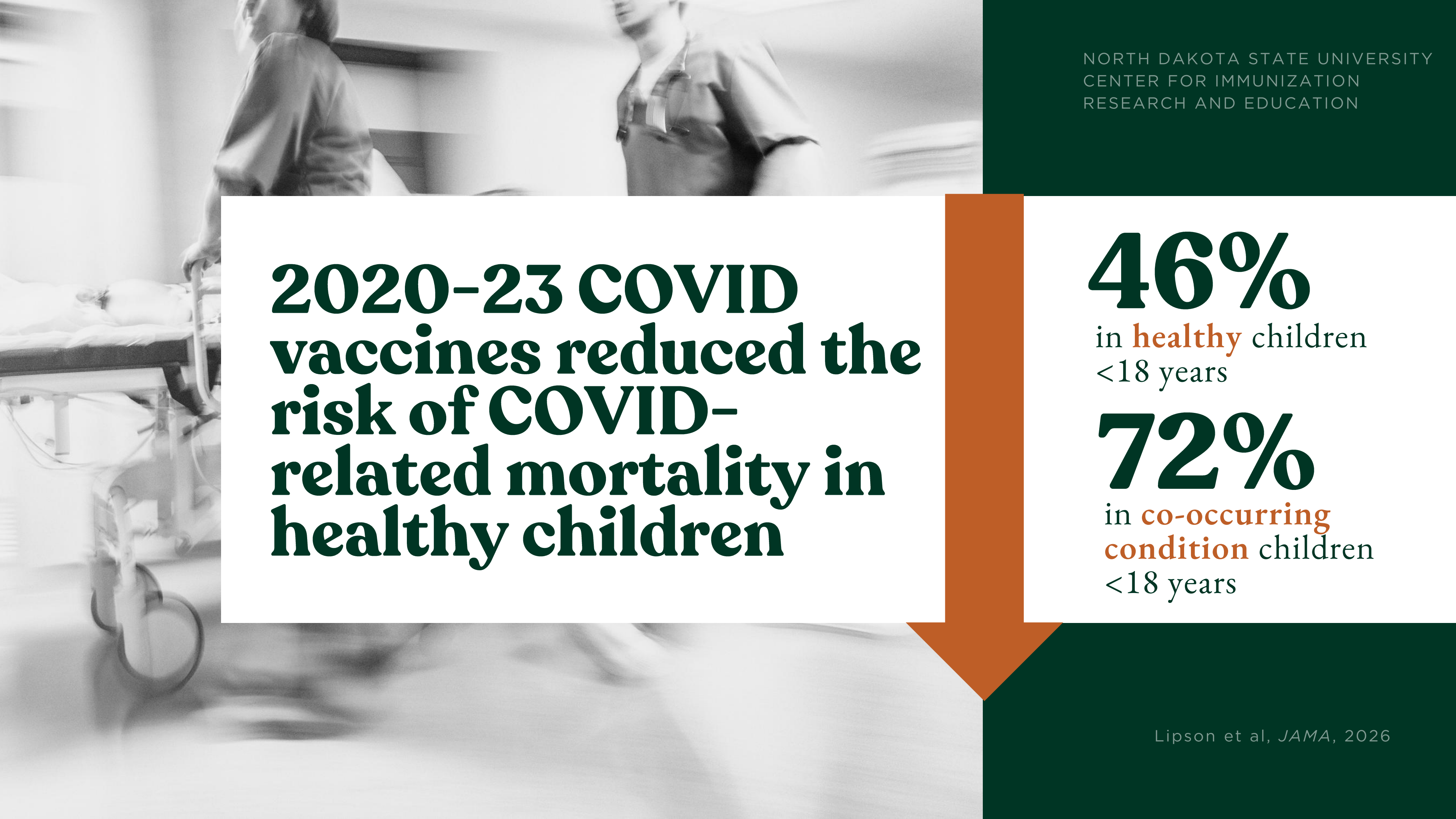
2024-25 COVID vaccines reduced the risk of COVID- associated ER and urgent care visits



76%
in children ages 6
months to 4 years



56%
in children ages
5-17 years

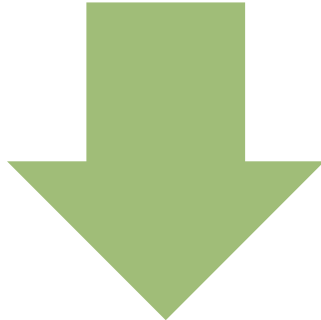


**2020-23 COVID
vaccines reduced the
risk of COVID-
related mortality in
healthy children**

46%
in **healthy** children
<18 years

72%
in **co-occurring
condition** children
<18 years

COVID-19 vaccination during pregnancy can also extend protection to newborns, reducing COVID-related hospital contacts among infants by:

 **50–54%**

during their first 2 months of life - *when they are most at risk.*



COVID Vaccination and Long COVID

Growing evidence suggests vaccination may reduce the risk of persistent symptoms following COVID-19 infection.

U.S. RECOVER-Pediatrics Study

- Adolescents ages 12–17
- 36% lower risk of Long COVID among those vaccinated before infection

Japanese Study

- Children & adolescents during the Omicron period
- Vaccination before infection was associated with lower risk of post-COVID conditions
- Lower risk was particularly observed for smell/taste dysfunction, nausea, and hair loss

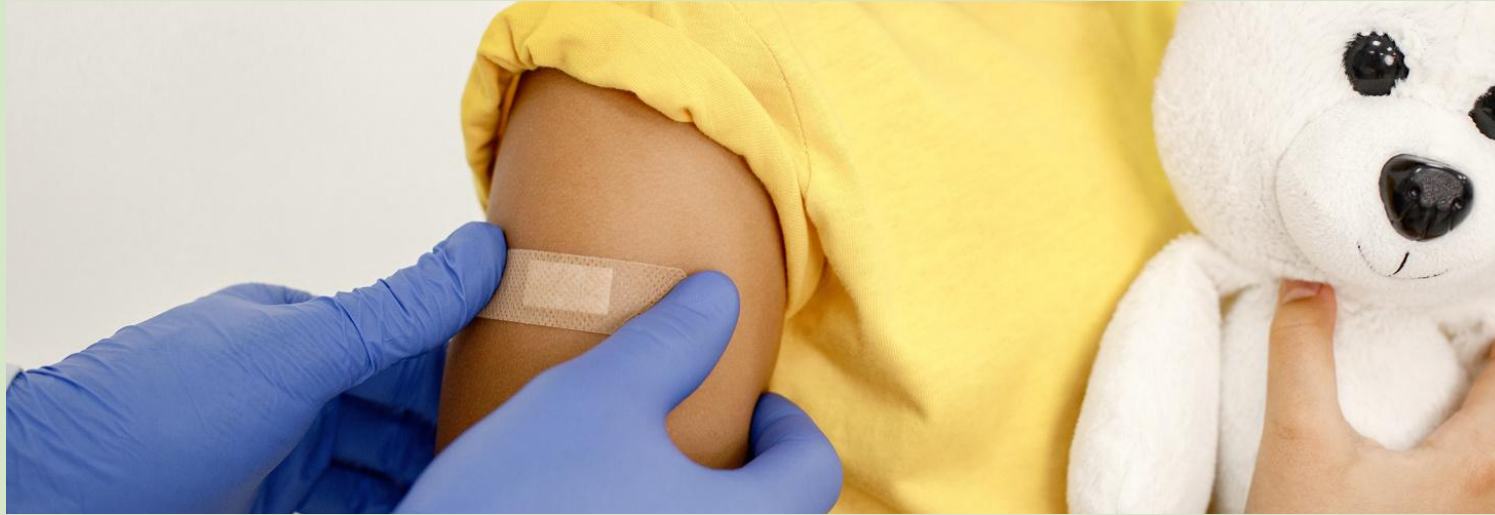
COVID-19 Vaccination May Also Reduce Household Transmission

Study population: 362 people with SARS-CoV-2 infection and 763 household contacts

- **Household transmission was common:** 62% of household contacts became infected
- When the primary case had been vaccinated ≤ 6 months before illness onset, **household contacts had nearly half the risk of infection compared with contacts of unvaccinated primary cases**

COVID-19 vaccination may provide an indirect benefit by reducing transmission and overall exposure to SARS-CoV-2.





Pediatric COVID-19 Vaccine Safety

NORTH DAKOTA STATE UNIVERSITY
CENTER FOR IMMUNIZATION RESEARCH AND EDUCATION

- **Extensive safety monitoring:** Millions of doses administered to children worldwide with strong safety record
- **Most side effects are mild and short-lived** (sore arm, fever, fatigue)
- **No unexpected safety concerns identified in post-authorization monitoring** (e.g., including Guillain Barré syndrome [GBS], immune thrombocytopenia, febrile seizures, life-threatening reactions, or death)
- **Myocarditis:** rare risk of mRNA COVID-19 vaccination, occurring primarily in adolescent males—most often after dose 2. Newer formulations appear to have lower rates.
- **Benefits outweigh risks:** vaccines prevent hospitalization, MIS-C, and long-term complications from infection
- **Ongoing surveillance continues to reaffirm a favorable safety profile**

Pediatric COVID-19 Vaccine Safety: What New Data Show

NO ASSOCIATION WITH AUTISM

New evidence continues to find no link between COVID-19 vaccination and autism.

SERIOUS ADVERSE EVENTS REMAIN RARE AND MONITORED

FDA review found no child deaths definitively caused by COVID-19 vaccines, while continuing to evaluate rare serious events.

Myocarditis/pericarditis remains a recognized rare adverse event, occurring most often in adolescent and young adult males after mRNA vaccination.

COVID-19 ITSELF CARRIES RISK

SARS-CoV-2 continues to cause hospitalizations and deaths in children, particularly among younger children/infants.



Co-administration of COVID-19 Vaccine With Other Immunizations*

What we know	Current evidence & Guidance
COVID-19 + influenza vaccine	Large observational data found no increased risk of selected adverse events among children receiving COVID-19 and influenza vaccines together vs COVID-19 vaccine alone.
COVID-19 + other recommended immunizations	COVID-19 vaccine can be administered concomitantly with other indicated immunizations , when there are NO contraindications.
COVID-19 + RSV monoclonal antibodies	Can be administered concomitantly with nirsevimab or clesrovimab when indicated.

*Adolescent and young adult males receiving both a COVID-19 vaccine and JYNNEOS may consider spacing the vaccines by 4 weeks as a precaution. Do not delay vaccination when risk for mpox or severe COVID-19 is increased.

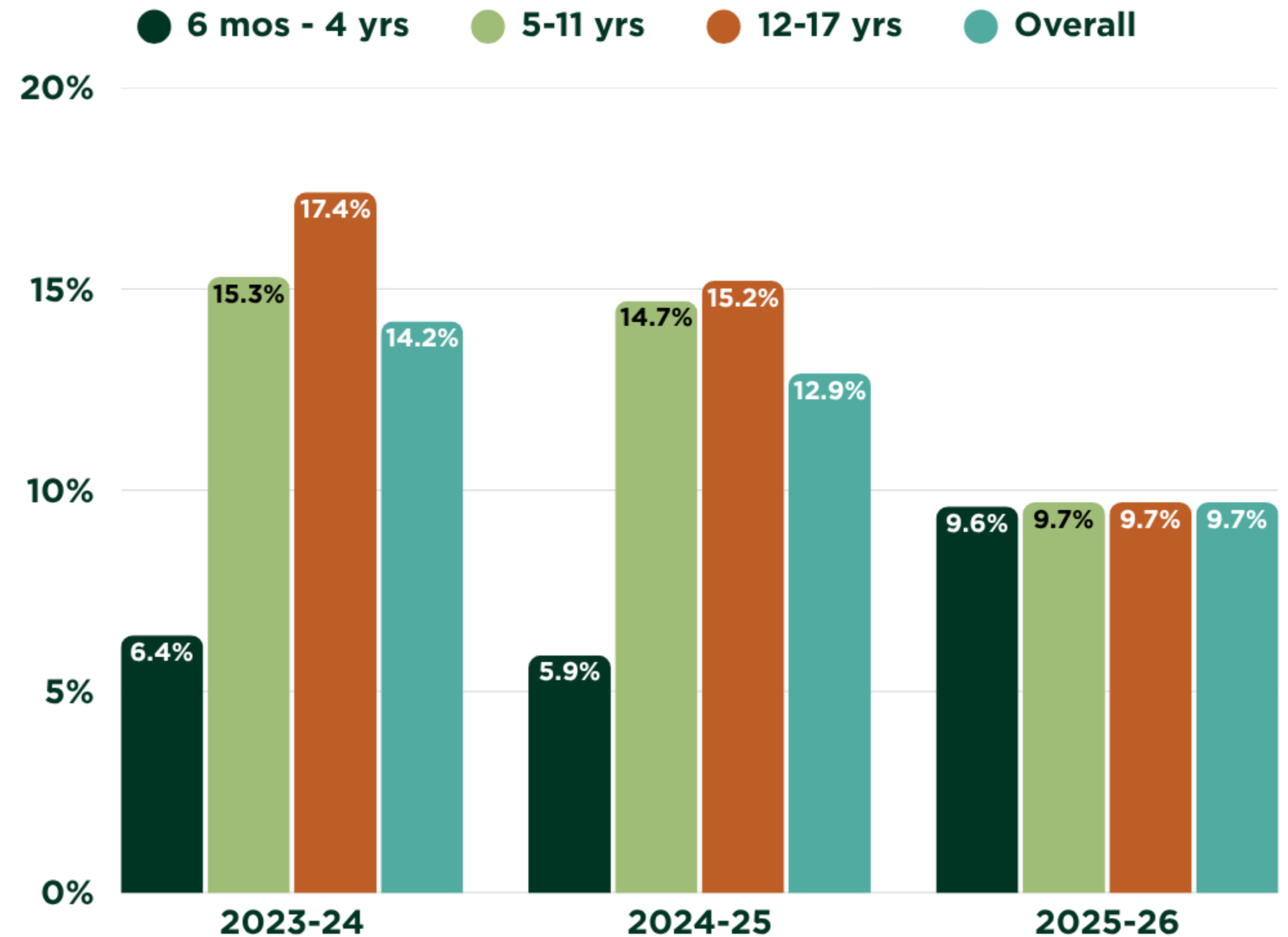
COADMINISTRATION OF COVID-19 VACCINE WITH OTHER INDICATED IMMUNIZATIONS IS SAFE AND SUPPORTED TO HELP CHILDREN RECEIVE RECOMMENDED PROTECTION WITHOUT UNNECESSARY DELAYS.

U.S. COVID-19 vaccination rates for children remain low, below 10%

WEEKLY CUMULATIVE % OF CHILDREN 6 MOS-17YRS WHO ARE UP TO DATE WITH COVID-19 VACCINE BY SEASON

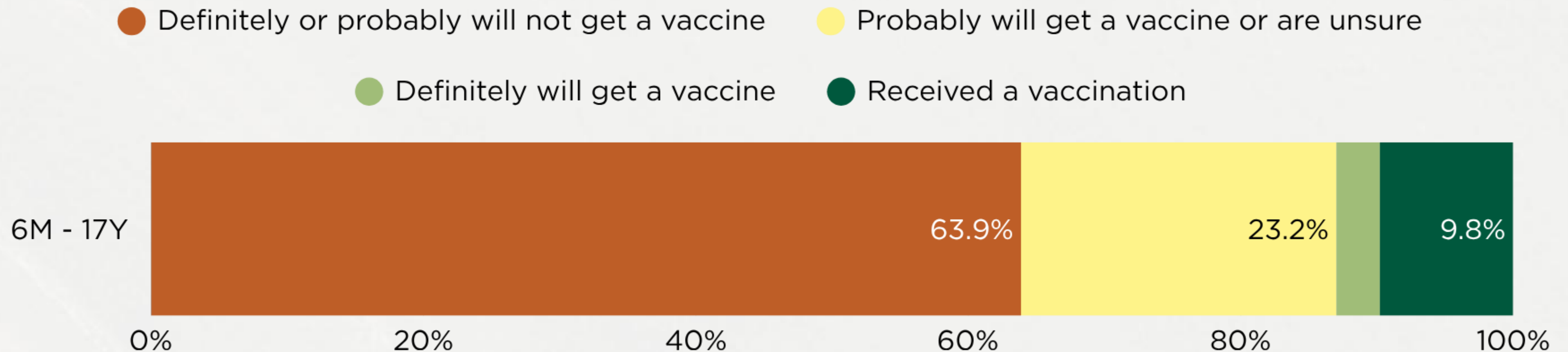
COVID-19 vaccination coverage in U.S. children was very low for the 2025-26 season, and seasonal uptake rates have generally remained low or continue to decline compared with previous seasons.

Data as of late April/Early May across seasons for comparison. Data pulled 8/24/2026. CDC, COVIDVaxView, 2026.



Over half of all parents do not intend to get their child the COVID-19 vaccine, while 23% are still unsure

Focusing on the “moveable middle” may have the greatest impact at increasing pediatric COVID-19 vaccination rates.



True or False?

Among children and adolescents, SARS-CoV-2 reinfection has not been associated with an increased risk of Long COVID compared with a first infection.

True

False

True or False?

Among children and adolescents, SARS-CoV-2 reinfection has not been associated with an increased risk of Long COVID compared with a first infection.

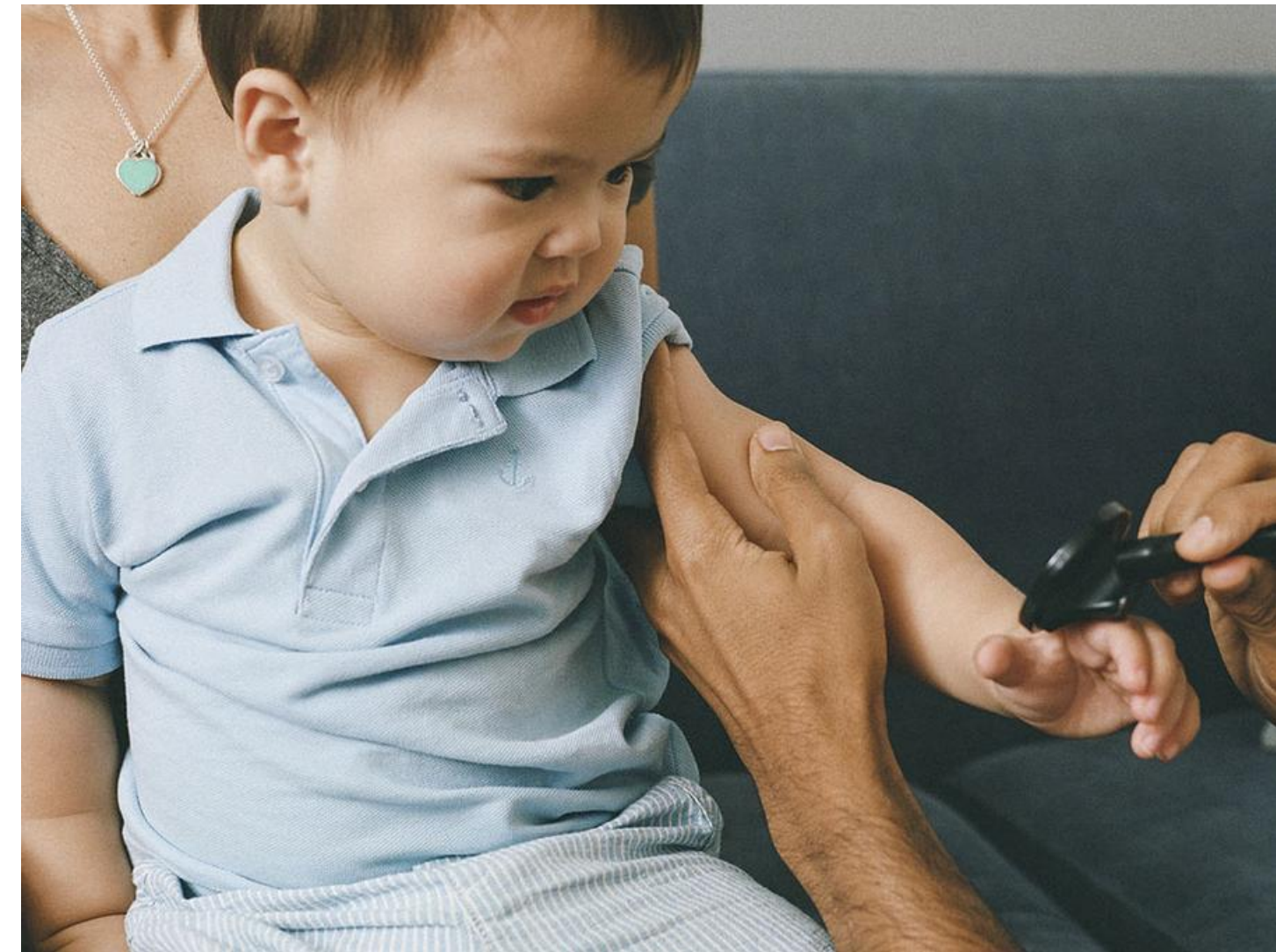
True

False

Recap

COVID - 19

- COVID-19 hospitalizations still disproportionately affect infants and toddlers, and most hospitalized or ICU-admitted children had no underlying conditions.
- Vaccination was associated with a 76% reduction in COVID-19 related ER visits among children 6 months 4 years.
- Vaccine coverage and intent is low



How to Respond: Conversation Pearls for COVID Vaccine

Patient Concern: “Is the COVID vaccine safe for kids?”

AVOID:

It’s completely safe.

TRY INSTEAD:

I understand why you’re asking. As your child’s provider, I wouldn’t recommend something I didn’t believe was worthwhile. We’ve now given COVID-19 vaccines to millions of children, and the overall safety data have been reassuring. I recommend COVID-19 vaccination for my patients because I believe the benefits of protection outweigh the potential risks, and we continue to closely monitor for rare safety concerns.

Patient Concern: “If they can still get COVID, what’s the point?”

AVOID:

COVID vaccines are not 100% effective at preventing infection. Their value includes reducing risk of severe outcomes.

TRY INSTEAD:

You’re right—the vaccine doesn’t make infection impossible. But it can lower the risk of serious illness, medically attended illness, and potentially Long COVID, while also reducing the chance of passing infection to others. We can’t predict which child will have a mild illness and which may have complications, so I recommend vaccination for my patients—it gives them another layer of protection and can mean fewer missed days of school and activities

Comparing Seasonal Recommendations

AAP RECOMMENDATIONS: 2025-26 VS. 2026-27

Vaccine	2025-26 AAP Recommendation	2026-27 AAP Recommendation	What changed?
Influenza	All children ≥6 months annually, absent contraindications. No preference among age-appropriate products.	All children ≥6 months annually, absent contraindications. No preference among age-appropriate products.	No major change in recommendation. AAP continues universal annual vaccination.
RSV	<8 months entering 1st RSV Season: Recommended for infants whose pregnant parent did not receive RSV during pregnancy, using nirsevmiab or clesrovimab. 8-19 months: RSV monoclonal antibody recommended for children at increased risk of severe RSV disease entering their second season.	<8 months entering 1st RSV Season: RSV immunization remains recommended based on maternal RSV vaccination status. 8-19 months: AAP expanded the definition of children at increased risk who should receive RSV immunization entering their second season, including children regardless of maternal vaccination status or prior receipt of nirsevimab/clesrovimab in their first season.	Expanded second-season protection. This is the biggest pediatric RSV change for 2026–27 by AAP. New Window: ACOG also extended seasonal administration window for maternal RSV vaccine, through March 1 instead of January 31.
COVID-19	6-23 months: Universal vaccination with the updated COVID-19 vaccine was recommended. 2-18 years: Vaccination was recommended for children who were moderately/severely immunocompromised; other children could be offered vaccination if their parent/guardian desired protection.	6-23 months: AAP recommends vaccination for all children without contraindications. 2-18 years: Vaccination is recommended for children at increased risk of severe COVID-19; children not at increased risk may be offered vaccination if their parent/guardian desires protection.	Broadly similar. AAP continues to recommend vaccination for young children and risk groups while preserving parent choice for other children.

Pediatric Respiratory Viruses Summary

2026 - 2027

INFLUENZA

- The 2025-26 flu season was severe among our pediatric patients
 - Total of 191 pediatric deaths
- Everyone 6 months and older should get an annual flu vaccine
- The 2025-26 flu vaccine reduced the risk of healthcare visits and hospitalization substantially
- Flu vaccine coverage has decreased over time, with intent to vaccinate remaining low

RSV

- RSV is the most common cause of hospitalization among infants
- Three options for prevention: monoclonal antibody for the infant (nirsevimab and clesrovimab) or maternal RSV vaccine
 - All three options are safe and effective; preference may vary based on patient situation
- Updates:
 - Expanded high-risk classifications for nirsevimab second-season administration
 - Maternal RSV vaccine can be administered from September 1 - March 1

COVID-19

- COVID-19 hospitalizations still disproportionately affect infants and toddlers, and most hospitalized or ICU-admitted children had no underlying conditions.
- Differing recommendations from CDC and AAP - access may be limited
- Pediatric COVID vaccines reduce the risk of hospitalization, long COVID, and death from the virus
- Vaccine coverage and intent is low

There is reason
to hope.

PARENTS WANT TO PROTECT THEIR CHILDREN.

Parents who encourage routine childhood vaccination outnumber those who discourage it **3 to 1 nationally**.

TRUSTED CONVERSATIONS MATTER.

Vaccine-supportive parents most often reach family and friends, sharing their experiences and having personal conversations.

YOU CAN MAKE A DIFFERENCE.

Parents consider their child's health care professional their most trusted source of vaccine information — even when they have questions or are considering delaying vaccination.



Questions?

*Please submit your questions in
the Q&A function in Zoom.*

