

Improving *Childhood Influenza Immunization* Rates To Protect Our Nation's Children



A Report from the *Childhood Influenza Immunization Coalition*
Sponsored by the National Foundation for Infectious Diseases

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Childhood Influenza
Immunization Coalition
The Power of One Strong Voice



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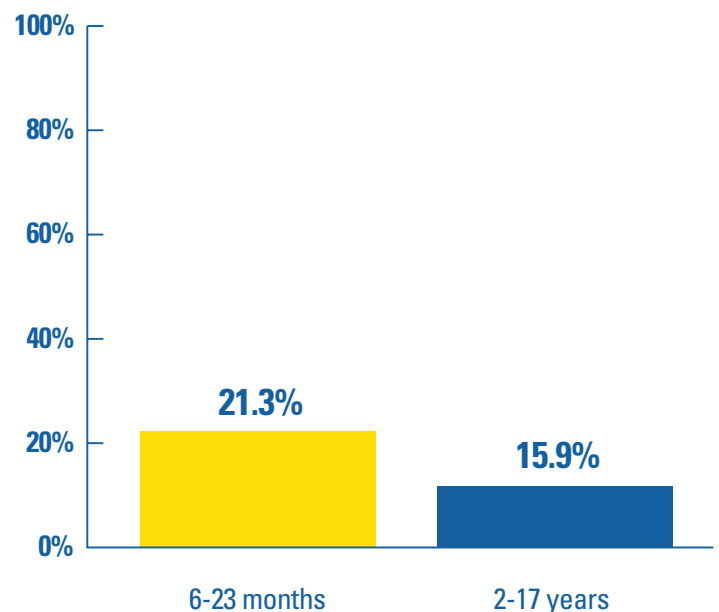
The mission of the National Foundation for Infectious Diseases' (NFID) *Childhood Influenza Immunization Coalition (CIIC)* is to protect infants, children, and adolescents from influenza by communicating with "one strong voice" the importance of making influenza immunization a national health priority. *CIIC* members (see page 4 for complete list) include public health, medical, patient, and parent organizations interested in reducing the burden of influenza in children by increasing immunization rates. Representatives of these groups first met on May 23, 2007, in Washington, D.C., to discuss the importance of protecting children from the serious and potentially deadly influenza virus and its complications, and to outline ways to help health care professionals administer influenza vaccines to more infants, children, and adolescents and their close contacts annually. This Report summarizes key information supported by the *Coalition* and its members.

Most children remain vulnerable to influenza infection every year.

The Centers for Disease Control and Prevention (CDC), the American Academy of Pediatrics, and other organizations recommend annual influenza vaccination¹ of all children 6 months through 18 years of age. Vaccination is particularly important for all children at least 6 months of age with certain underlying medical conditions (e.g., asthma, diabetes, cardiovascular disease, immune deficiency) or undergoing certain immune modulating treatments (e.g., chemotherapy).^{*} Despite recommendations for routine influenza vaccination annually, vaccination rates in children are extremely low (Figure 1). Increased influenza immunization rates in children and their close contacts are needed to prevent influenza and its potentially serious complications.

Figure 1

Influenza Vaccination Rates in Children U.S.



Sources: National Health Interview Survey; National Immunization Survey.^{2,3}

^{*} In addition to recommendations to vaccinate specific groups, CDC recommends annual influenza vaccination for anyone who wishes to reduce his or her risk of influenza.



The impact of influenza in children is considerable

Influenza-related deaths occur in children of all ages. During the 2003-2004 influenza season, CDC requested that all influenza-associated deaths in children be reported to state and local health departments.⁴ In the 2003-2004 season, 153 deaths were reported in children.⁵ While more than half are in children less than 5 years of age, four in 10 deaths are in children 5 through 18 years of age. CDC estimates that nearly 100 U.S. children younger than 5 years of age die every year due to influenza and its complications.¹

Infants and toddlers are hospitalized with influenza infection at high rates. These hospitalization rates are comparable or higher than the influenza-related hospitalization rates of any other group, including elderly persons.^{1,6,7} In addition, a recent study demonstrates that hospitalizations of children due to influenza are underestimated. In that study, only 28 percent of hospitalized children younger than 5 years of age with laboratory confirmed influenza infection were correctly diagnosed at discharge.⁸ The more than 70 percent of hospitalized children who were not correctly diagnosed with influenza had diagnoses that, in some cases, focused on influenza complications, such as bronchiolitis, pneumonia, asthma, seizure, viral illness, fever, and suspected sepsis.

Children continue to be negatively affected by influenza infection after the first two years of life. Children 24 to 59 months of age are at increased risk of influenza-related visits to health care professionals, emergency depart-

ments, and clinics.¹ Children with underlying medical conditions (e.g., asthma, diabetes, cardiovascular disease, immune deficiency) also experience increased office and other outpatient visits, including visits to the emergency department, and receive more antibiotic prescriptions during influenza season.^{3,7,8}

Multifaceted approaches are needed to increase childhood influenza immunization rates

Influenza vaccination is safe and effective and has been used for decades to protect persons of all ages. Interventions that have been shown to increase immunization rates include increased educational efforts directed to parents and guardians, patients, and health care professionals; increased access to vaccines (e.g., through extended vaccination hours and vaccine-only clinics); and streamlined health care professional practices (e.g., use of standing orders and reminder and recall strategies).

In the case of influenza, an emphasis on two key areas may help increase immunization rates. First, as CDC recommends, health care professionals should offer influenza vaccination at all medical visits. Influenza vaccinations can be delivered safely with other vaccines and administered to children even when they have mild illness.

The influenza vaccination season should be broadened to January and beyond. Historically, influenza vaccination efforts drop significantly by mid-December.⁹ However, influenza activity does not peak until February or later in most years.¹⁰ Vaccination continues to offer substantial benefit when given in December, January, or even in later months and should continue even after influenza activity has been documented in a community.¹

In addition, increased efforts are needed to reach and vaccinate underserved populations to reduce disparities in influenza vaccination rates. Influenza vaccination coverage is significantly lower among children 6 to 23 months who are living below the poverty level and children who are African American or Hispanic.¹¹ Underserved populations and racial and ethnic minority children have higher rates of

underlying medical conditions, such as asthma, that increase their risk of influenza-related complications. Compared with white children, the asthma prevalence rate is 25 percent higher in children of American Indian or Alaskan Native descent, 60 percent higher in African American children and 140 percent higher in Puerto Rican children.¹²

Vaccination of children may provide additional benefits to society

Although protection of children is the main goal of increasing childhood influenza immunization rates, there is evidence to suggest that vaccinating children will provide additional benefits to society. Widespread childhood vaccination can interrupt influenza transmission since influenza outbreaks usually begin in children and then move on to the community at large.^{13,14}

Increased focus on providing influenza vaccine to children targeted for immunization now will also help to build a sound foundation for future vaccination efforts. For example, in 2008 public health officials implemented a universal influenza vaccination policy for all children 6 months through 18 years of age. Discussions have focused on creating a universal vaccination policy in a stepwise fashion with the universal vaccination policy for children preceding universal vaccination for persons of all ages. This plan allows for an ordered growth of vaccine infrastructure and also could provide useful data about the potential for herd immunity resulting from widespread influenza vaccination in children.



Childhood Influenza Immunization Coalition The Power of “One Strong Voice”



The goal of the *Childhood Influenza Immunization Coalition* is to bring together the nation’s leading public health, medical, patient, and parent organizations to develop “one strong voice” to call for and design strategies that will improve influenza immunization rates and encourage vaccination of children and their close contacts.

Strategies to help make influenza immunization a national health priority and increase immunization rates include:

- **Educating health care professionals** about CDC target vaccination groups, influenza immunization recommendations, and the medical rationale for influenza immunization recommendations. Well-informed health care professionals are best equipped to educate parents and guardians.
- **Using every opportunity to vaccinate** against influenza, such as well-child, acute care or back-to-school visits, and “influenza vaccine-only” clinics.
- **Broadening the influenza immunization season** by encouraging health care professionals to begin vaccinating as soon as vaccine becomes available as well as into January and beyond because the vaccine continues to be of benefit while the virus circulates.
- **Educating parents, guardians, and other caregivers** throughout the year about the serious nature of influenza and motivating them to seek annual influenza immunization for their children.

References

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The following *Coalition* members agree annual influenza immunization rates among children and their close contacts need to improve to reduce influenza-related illness and deaths in children.

- *Allergy & Asthma Network Mothers of Asthmatics*
- *American Academy of Pediatrics*
- *American Academy of Physician Assistants*
- *American College of Cardiology*
- *American College of Obstetricians and Gynecologists*
- *American Lung Association*
- *American Medical Association*
- *American Pharmacists Association*
- *American Public Health Association*
- *Asian and Pacific Islander American Health Forum*
- *Association of State and Territorial Health Officials*
- *Asthma and Allergy Foundation of America*
- *Canyon Ranch Institute*
- *Center for Vaccine Awareness and Research at the Texas Children's Hospital*
- *Centers for Disease Control and Prevention*
- *Every Child by Two*
- *Families Fighting Flu, Inc.*
- *Immune Deficiency Foundation*
- *Immunization Action Coalition*
- *Kaiser Permanente – Northern California*
- *National Association for the Education of Young Children*
- *National Association of Community Health Centers*
- *National Association of Pediatric Nurse Practitioners*
- *National Association of School Nurses*
- *National Foundation for Infectious Diseases*
- *National Hispanic Medical Association*
- *National Medical Association*
- *Parents of Kids with Infectious Diseases*
- *Society for Adolescent Medicine*
- *Vaccine Education Center at the Children's Hospital of Philadelphia*

Founded in 1973, NFID is a non-profit organization dedicated to educating the public and health care professionals about the causes, treatment, and prevention of infectious diseases.

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This document is available at: www.preventchildhoodinfluenza.org

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