



American Academy of Pediatrics



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**STATEMENT FOR THE HEARING RECORD**

**THE NEEDS OF CHILDREN IN THE EVENT OF AN INFLUENZA  
PANDEMIC**

**On Behalf of  
The American Academy of Pediatrics**

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## **Introduction**

This statement is submitted on behalf of the American Academy of Pediatrics, an organization of 60,000 primary care pediatricians and pediatric medical and surgical subspecialists dedicated to the health, safety and well-being of infants, children, adolescents, and young adults. The purpose of this statement is to raise awareness of the special needs of children in the event of an influenza pandemic. Everyone must be vigilant in ensuring that the health and welfare of children are considered in all aspects of influenza planning, including preparation for a possible pandemic influenza outbreak.

Although a global or "pandemic" flu is a virtual certainty, no one can definitively predict when it will strike and whether or not H5N1 will be the cause. Indeed, a growing number of H5N1 bird-flu cases in Asia and Europe may signal the likelihood that a mutated form of the virus could emerge, creating a global crisis. The longer the viruses circulate, the greater the chances for an H5N1 pandemic. The fear is that a human host eventually will contract the virus while already infected with a human influenza A virus. Genetic re-assortment between the viruses ensues, creating a new viral strain capable of sustained, human-to-human infection.

According to the Centers for Disease Control and Prevention (CDC), "a medium-level pandemic" in the United States could infect 15% to 35% of the population and cause 89,000 to 207,000 deaths, between 314,000 and 734,000 hospitalizations, 18 million to 42 million outpatient visits, and another 20 million to 47 million people being sick.

Preparing for the next influenza pandemic requires support and collaboration from multiple partners at the local, state, and federal levels. Ideally, such planning and prioritization activities should take place well in advance of any catastrophic infectious disease event. Without agreement about the top priority for allocating scarce resources, planning and implementing an optimal response to pandemic influenza will be difficult.

The U.S. Department of Health and Human Services (HHS) supports pandemic flu activities in the areas of surveillance ("detection"), vaccine development and production, antiviral stockpiling, research, and public health preparedness. The CDC is specifically charged with developing recommendations and materials for state and local governments and hospitals to be incorporated in the final plan, set for completion in spring 2006.

## **What are the special needs of children in influenza pandemic?**

Some of the problems that warrant special consideration during pandemic planning include response coordination, early control efforts, vaccine production, vaccination use and distribution, rapid diagnosis of influenza, the role of antiviral agents, hospital resources, public and private health care systems, and insurers. Unfortunately, the medical literature has little guidance on such influenza pandemic planning efforts for children.

Epidemiologic studies indicate that children of all ages with certain chronic conditions and otherwise healthy children younger than 24 months of age are hospitalized for influenza infection and its complications at high rates similar to those experienced by the elderly. Although many of the pandemic flu issues relevant to adults also are relevant to children, there remains a uniqueness that begs for the care of children to be identified and included in the extensive efforts to explore our nation's readiness for influenza pandemic.

When one considers surge capacity in providing care of children, communities are encouraged to develop real-time tracking of the number of available intensive care unit and medical beds, particularly for children. In fact, it will always be more difficult to increase surge capacity for infants and young children, as this cohort of pediatric patients often requires the presence of parents or other adults all the time; this may translate into more space and healthcare personnel needs.

Then, what will happen when parents or caretakers are too ill to provide care or oversight for their children? In our fast-paced world, extended families are less readily available these days than in decades past. Home health programs are felt by some to be appropriate alternatives for “less ill” patients, but this is not likely to be as helpful for infants and young children, since such resources with appropriately trained staff are often minimally available at best.

Of course, there is also a notable need for (1) more studies on vaccine efficacy in young children, (2) the development of additional flu vaccine products (i.e., only one vaccine available for children under four years), and (3) more studies of antiviral agents for infants. The recently announced increase in funding for research and infrastructure is critical for an effective pediatric response during the next pandemic.

Concern has been raised that many locales will not have the necessary public health expertise to plan for or respond adequately to the variety of health and social needs of young children that would be expected to arise during a pandemic. Many local communities simply have a relative paucity of resources at their discretion. Indeed, technology-based tools to be used at local levels are in progress, but these still need to be re-defined in terms of the pediatric age ranges from under two through 18 years of age.

In addition, the possibility of a “quarantine-like” approach might need to be considered. For example, during a pandemic, schools may have to be closed for periods of time to minimize spread. Efforts to keep groups of children and teens from congregating (e.g., in malls) may be implemented and enforced.

The purchase, distribution and availability of vaccines and antiviral medications are among the greatest challenges in planning for and implementing a pandemic response plan. Since we cannot predictably identify which strains of flu will cause widespread severe disease, more work is needed for prediction and to insure the availability of a pandemic vaccine. Unfortunately, H5 and H7 subtypes cannot be grown in eggs the way the other subtypes are, which poses another huge challenge. Moreover, two doses of a vaccine would be needed for each person in a flu pandemic; supplies most likely would be limited to what could be produced in the United States as other countries would need to produce and retain vaccines for their own use.

In addition, for any *universal* vaccination recommendation to work, easily identifiable obstacles need to be overcome, such as enhancing the manufacturing infrastructure to make that many more vaccine doses available, working around all logistical issues related to mass vaccination within a few short months of the year, and how best to gain the overall acceptance of such a recommendation by practitioners and the public.

Efforts are under way to increase influenza vaccine manufacturing capacity and to stockpile antiviral drugs. Being prepared will decrease the need to make difficult allocation choices when a pandemic occurs.

If there isn't a methodology available to rapidly make vaccine, though, the public health approach will naturally shift from prevention to treatment. National stockpiling may be somewhat helpful, but it is very unlikely to adequately meet the anticipated severe demand. Add the fact that certain antivirals are not active against potential pandemic strains like H5N1, then this leaves only one class of antiviral drugs available at the moment, but none for infants under a year of age where this drug is currently contraindicated. There is the additional challenge of providing an antiviral in an acceptable form, as young children can't take capsules. Antiviral medications also would have to be distributed through a tiered process based on need and risk.

### **What are the next steps?**

Three pandemics have occurred in the 20th century. All of them spread worldwide within one year of detection and led to high levels of illness, death, social disruption and economic loss. The H5 influenza virus is dangerous, and the prospect of a pandemic with this strain is of substantial concern.

Our nation is not yet ready to optimally respond in ways to provide quality medical care for children who would be expected to have severe disease under pandemic conditions.

There was initial concern from the pediatric community when the first draft of the National Pandemic Influenza Preparedness Plan, released in August 2004, and other pandemic planning documents had little, if any, mention of children.

The updated national document recently released was anticipated to be a major step forward in the process of identifying issues that must be addressed at federal, state, and local levels for both the public and private sectors, along with providing guidance for sufficient planning and response in a pandemic. However, it currently falls short of this overall goal.

The American Academy of Pediatrics is eager to work with HHS to ensure that children and pediatricians are an integral part of the developing national pandemic flu plan.

Thoughtful planning is key, along with getting the right partners involved up front.

Expansion of the National Pandemic Influenza Preparedness Plan to more thoroughly include children is a must. A wide range of pediatric expertise should be responsible for all planning efforts at national, state, and local levels.

We appreciate the opportunity to express the opinions of the American Academy of Pediatrics and thank you for your consideration.