

**Institute of Medicine
Committee Meeting on Modeling Community Containment for
Pandemic Flu
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The American Academy of Pediatrics is 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.

Overview

It is critical that the health and welfare of children are considered in all aspects of influenza planning, including preparation for a possible pandemic influenza outbreak. This preparation requires support and collaboration from multiple partners at the local, state, and federal levels. Although many of the pandemic flu issues relevant to adults are also 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.

A discussion regarding the models of community containment for pandemic influenza is especially pertinent to children and families. The overall impact on children and their families with the closure of schools and childcare

facilities for prolonged periods of time will present problems that should be given serious consideration well in advance of the pandemic.

Concerns for all children

- Closing schools as a technique for containment of pandemic flu may or may not be effective. Previous studies on effectiveness have produced mixed results, at best. Further research is needed as quickly as possible.
- Most parents would not be able to go to work, which could seriously influence our workforce and our economy both here and abroad.
- If parents had to continue working, there could be inappropriate and unsafe supervision of children left at home. For example, we could find only slightly older siblings taking care of younger children.
- There could be significant social/educational implications for children if school closure was for an extended period of time.
- Many lower SES children rely on school as their major source of nutrition and nurturing. Data from 2005 indicates that the combined school breakfast and lunch programs served almost 40 million children. This number increases when you add the childcare food program. This is a critical issue that we must seek a solution too well in advance of a pandemic, as experience suggests with a similar type program -- senior citizens who receive “meals on wheels”.
- Closed schools will be unable to continue the educational process. Distance learning, one option to be considered, requires substantial resources, preparation and training for staff. Even with technology, access may not be feasible for all school-aged children.

- Schools could become places where recommendations from the *Rand* study could be carried out:

In collaboration with the *medical home*, when a vaccine is available, children could be vaccinated effectively and efficiently.

Through the medical home and a school nurse, surveillance and case reporting could take place.

The school nurse could conduct early viral diagnosis and triage.

Children could learn hand hygiene (with appropriate funding for hand cleansers at schools).

Children could learn respiratory etiquette.

Children could learn social distancing (3 feet away at all times).

Children could be issued respiratory equipment (masks) and learn to use it properly and consistently (all children would be using the masks in a controlled environment).

Children could be the vehicles for education of the rest of their families

Concerns for children in child care

In June 2006, the CDC convened with representatives from national child care organizations and thereafter held monthly conference calls to discuss the issue of how these groups – including the AAP - could best support the child care community in the event of a seasonal or pandemic influenza. From these conference calls, as well as research, the following issues have been identified:

- A majority of children under the age of 6 are enrolled in some form of out-of-home childcare program. Decision-makers should give special considerations to the impact that any policies/decisions might have on young children in childcare and their families. For example, if a recommendation is made for all community members to evacuate an area (or to stay at home), parents will likely disregard these directives and create a “counter-flow” problem by attempting to get to their children.
- If a pandemic influenza occurs, the sickest (and presumably most contagious) patients are most likely to seek hospital care. If projected statistics hold true, hospitals and their staff will face several key challenges, and one of these will be identifying around-the-clock childcare options for the children of medical personnel and other staff.
- If school closure is recommended, and this recommendation extends to child care programs, both positive and negative outcomes should be considered:
 - Childcare programs are governed/administered in a different manner than schools. There are different methods for

monitoring/tracking these programs, depending on whether the program is federally subsidized, licensed, regulated, or unregulated (operated out of an individual's home).

- Communication mechanisms to reach individuals working in childcare programs may be limited depending on their access to computers, telephones, and other technologies.
- Young children have closer contacts with others and are less likely to wash their hands or control coughs. However, if these children are prevented from attending childcare, the number of contacts with these children could actually increase (at home, in neighborhood care, etc.). In addition, health promotion and disease prevention standards and practices may not be understood or applied.
- Changing a young child's regular caregiver has implications that could affect the brain development and social/emotional competence of that child.
- A significant proportion of children in lower-income families rely on subsidized school meal programs for basic nutrition.
- Closing childcare programs can generate problems related to quality of care, continuity of care, and decreased supervision or compliance with vitally important health/safety standards.

Concerns for children with special health or developmental needs

A teacher's job, especially those who educate children with special health care needs, is to develop a constantly evolving program to promote cognitive development. Teachers also provide a detailed plan of factual information, organized in integrated topics for efficient learning and memorization.

- Unless adults in the home can assume these roles, many children will not be able to increase their factual "database". The children most affected by this would be the children living in homes where the parents do not have the skills themselves to bring new information to their children or who are distracted by emotional, economic or personal cognitive challenges themselves.
- The other group of children expected to be significantly impacted would be those children with learning disabilities or those cognitively challenged who need specialized instruction not available in the home setting.

Families vary in their stability, emotional quality and support. An empathic and consistently responsive teacher can provide a child with daily positive regard. Moreover, schools provide formal emotional support through guidance counselors who are trained to help children with mild to moderate emotional struggles.

- The children most affected would be those children living in homes with emotionally 'absent' adult family members, emotionally

disturbed family members, or abusive family members. These children, if forced to stay home, would have no respite from these individuals.

- Children with emotional disorders would also be significantly affected. These children could be extremely challenging to interact with 24 hours a day, 7 days a week. Their family members might find it all but impossible to manage these children without the support of school personnel.

During the formal school day, children use all basic developmental abilities: attention, expressive/receptive language, memory (long-term, working, and short-term), and motor skills (visual spatial, fine, and gross). Clearly, the demands increase with each school year as more is expected of older children. A more subtle expectation is that the child is expected to show progress in these areas during the nine months of each academic year. The teacher is trained to monitor developmental progress and often refers children for formal assessment if the child is not making progress in these areas commensurate with classroom peers. These formal assessments and the availability of therapy are offered in the school setting.

- While all children are monitored in this manner, the children who would be most impacted by school closure would be those children needing support and therapeutic services in any of these development areas.
 - For example, a child receiving speech and language therapy who has an interruption of treatment will not continue to ‘close

the gap' with peers. While the child does not lose skills, he does not progress at the same rate as his normally developing peers. In this manner, he seems to 'lose' skills.

One of the most obvious functions served by school attendance is the opportunity for social interactions. These interactions occur in a variety of settings: classroom, playground, cafeteria, special classes and therapy sessions. Especially in public schools, children have the opportunity to interact with a wide variety of children with different socio-economic backgrounds, races, ethnicities, health statuses and cognitive levels. Most importantly, children cannot "avoid" interacting at school. The ability to successfully interact is so important that many schools have 'social groups' for children who struggle in this area.

- This is a critically important area for all children. Friendships are vital to children and adolescents. It is likely some children and adolescents will experience the hiatus in social contact as a significant loss and may experience depression. Others may become anxious wondering when they will be able to see and play with their friends.
- Adolescents especially may feel the loss of time with friends, as their developmental imperative is to seek out and become closer to peers. Children with social skills weaknesses (e.g. autism and Asperger's disorder) may lose skills they have learned.

Conclusion

The American Academy of Pediatrics is eager to be a part of and to work with all communities to ensure that children and pediatricians are an integral part of developing community containment models that work. Thoughtful planning is key, along with appropriate and timely collaboration. A wide range of pediatric expertise is available for involvement at local, state, and national levels. We are eager to participate and lend our expertise.