



Undervaccination of Children

Each year 2.1 million children in the United States aged 1 to 3 years receive few or no vaccines, according to a new study from the Centers for Disease Control and Prevention, in Atlanta, Ga. Undervaccinated children tended to be black, have a young and unmarried mother without a college degree, live near the poverty level, and reside in a central city. Unvaccinated children tended to be white, have a married mother with a college degree, live in a household with an annual income over \$75 000, and have parents concerned about vaccine safety (*Pediatrics*. 2004; 114:187-195).

The study analyzed a nationally representative sample of children collected annually between 1995 and 2001. A total of 151 720 children were sampled, and their vaccination histories for diphtheria-tetanus-pertussis, polio, measles, *Haemophilus influenzae* type b, hepatitis B, and varicella were obtained.

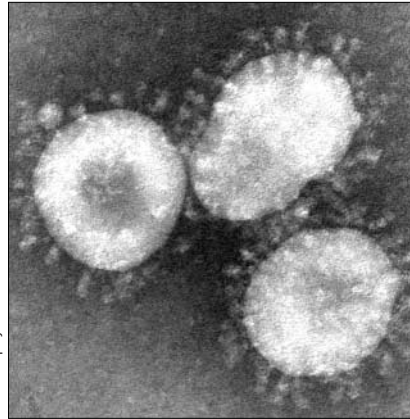
States that allowed exemptions to laws mandating vaccinations for children had significantly higher rates of unvaccinated children. The largest numbers of unvaccinated children lived in counties in California, Illinois, New York, Washington, Pennsylvania, Texas, Oklahoma, Colorado, Utah, and Michigan.

The authors stressed that children who are not properly vaccinated are at an increased risk of acquiring and transmitting preventable diseases.

Promising SARS Vaccine

Scientists have developed an experimental nasal spray vaccine that may protect individuals from severe acute respiratory syndrome (SARS) virus infection if another outbreak should occur (*Lancet*. 2004;363:2122-2127). Researchers from the National Institute of Allergy and Infectious Diseases, in Bethesda, Md, designed the vaccine by creating a recombinant attenuated parainfluenza virus that expresses the SARS

envelope spike protein. (This strain of virus is being developed as a live attenuated intranasal pediatric vaccine against human parainfluenza virus type 3.) The spike protein is a viral surface protein used by the SARS virus to invade human cells.



Fred Murphy/CDC

A new nasal spray vaccine against the SARS virus is effective in monkeys and is ready for clinical trials in humans.

In the study, 8 African green monkeys were immunized, 4 with a single dose of the vaccine and 4 with a control vaccine. Following a SARS viral challenge given 4 weeks later, viral shedding—an indication of infection—occurred in all monkeys in the control group compared with no monkeys in the SARS vaccine group.

The authors concluded that a single dose of such a vaccine may be effective for preventing SARS infection. Because the parainfluenza vaccine strain has already been shown to be safe in children, the vaccine is ready for clinical trials, although modifications may be needed for adults.

Pet Allergens in Homes

A new study indicates that detectable levels of dog and cat allergens—in amounts sufficient to increase the risk of allergic sensitization—are present in all US homes, including those without pets.

Scientists at organizations including the National Institute of Environ-

mental Health Sciences, in Research Triangle Park, NC, found considerably higher levels of allergens in homes with an indoor dog or cat. But levels that could increase the risk of allergic sensitization were also found in homes without these animals (*J Allergy Clin Immunol*. 2004;114:111-117).

The data for the study were obtained from the National Survey of Lead and Allergens in Housing, a nationally representative survey of 831 US homes. Vacuum-collected dust samples from the bed, bedroom floor, living room floor, and living room sofa were analyzed.

A dog or cat had not lived in 49.1% of homes in the previous 6 months, yet dog and cat allergens were detected in 100% and 99.9% of homes, respectively. The authors implicated the community as an important source of these pet allergens, as they are easily transported on clothing.

West Nile Virus Trials

The National Institute of Allergy and Infectious Diseases is expanding its clinical trial of an experimental West Nile virus (WNV) treatment. The trial opened at 36 sites last September, and it is expected to add about 24 new sites this summer.

The trial is assessing the safety of a product containing WNV antibodies derived from individuals who have high blood levels of these antibodies. These antibodies may have the potential to help patients fight WNV infections.

The trial can enroll up to 110 patients aged 18 years or older who have WNV-related encephalitis or who are at risk of developing this condition. Participants will receive a single intravenous dose of the treatment or one of two placebos.

Additional information is available at <http://www.clinicaltrials.gov/show/NCT00068055>.

In 2003, more than 9860 cases of WNV were reported, which included 264 deaths.—Tracy Hampton, PhD