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## High-Risk Patients Did Get Flu Shots This Year

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## CDC officials said despite the shortage, survey found those who needed it most did get vaccine.

BY ALICIA AULT

Contributing Writer

WASHINGTON — Despite the severe shortage of influenza vaccine this winter, most elderly, young children, and others at risk were able to find and receive shots, officials said at the National Immunization Conference sponsored by the Centers for Disease Control and Prevention.

Once it was known last October that Chiron Corp. would not be able to deliver its half of the nation's vaccine supply, the CDC immediately set up a special surveillance team to track where the vaccine was going and who received it, said Susan Chu, Ph.D., acting director of the agency's Office of Science Policy and Technology Transfer.

Seventeen new questions on the flu vaccine were added to the monthly Behavioral Risk Factor Surveillance System survey. From November 2004 to February 2005, 105,473 adults and 35,106 children (by proxy) were interviewed, said Michael Link, Ph.D., of the CDC's behavioral survey branch.

And, in a change of pace designed to keep state and federal agencies on top of the shortage, data were submitted to CDC weekly, not monthly, and were analyzed within days, giving states new data every 12 days or so, Dr. Link said.

As of late March, the survey found that

vaccines were received by 63.5% of respondents over age 65 years, 26% of 18-to 64-year-olds at high risk, and 36% of health care workers, said Gary Euler, Dr.P.H., of the CDC National Immunization Program's epi-

demiology and surveillance division. These figures were slightly higher than those gathered through January and reported in the CDC's Morbidity and Mortality Weekly Report. According to those data, 62.7% of those over age 65 years, 25.5% of those with high-risk conditions who are 18-64 years, and 35.7% of health care workers received vaccinations

(MMWR 2005;54:304-7).

Vaccination uptake was higher in October and November and tapered off in December and January.

Through February, among healthy Americans, 7.2% of those aged 18-49 years, and 17.3% of those 50-64 years said they had been vaccinated, compared with 6.9% and 16.5%, respectively, through January.

Fifty-two percent of children aged 6-23

months received a vaccine (up from 48.4% through January), a high uptake rate, given that 2004 was the first year the CDC's Advisory Committee on Immunization Practices recommended adding the flu shot to

routine immunizations, said Carolyn Bridges, M.D., an epidemiologist with the agency's influenza branch.

Dr. Euler said there was room for improvement, as the survey found that many parents said they did not get vaccines for their children because they did not think their children needed them.

The demand for vaccine among patients

aged 65 years and older was mostly met, though there was some problem getting vaccine in early November, Dr. Euler said.

An audience member questioned whether some of the demand had been met in Canada. As part of the survey, patients were asked where they got a vaccine. So if they went to Canada, those data would be captured, though they have not been analyzed yet, Dr. Euler said.

Vaccination rates also varied from state to state. Preliminary data indicate that states with lower immunization coverage had a smaller vaccine supply. Further analysis of the variation and the entire flu database will be coming over the next 6 months, Dr. Link said.

The CDC researchers acknowledged that the survey was limited because it is self-reported information, and does not cover people who are institutionalized.

Dr. Bridges said the Centers for Disease Control and Prevention currently is researching whether faster analysis of flu data helped states with their shot distribution and management. And, she said, since it was an expensive undertaking, it's not certain whether it will be repeated next year, or only in times of pandemic or flu vaccine shortages.

## Two Flu Vaccine Doses Up to 55% Effective in Influenza-Like Illness

BY ALICIA AULT

Contributing Writer

WASHINGTON — Two doses of influenza vaccine were up to 55% effective against influenzalike illness and 85% effective against pneumonia or flu, Mandy Allison, M.D., said at the National Immunization Conference sponsored by the Centers for Disease Control and Prevention.

The aim of Dr. Allison and her colleagues at Children's Hospital, Denver, and the University of Colorado Health Sciences Center, was to gather more data on the flu vaccine's effectiveness in children, especially since the CDC's Advisory Committee on Immunization Practices advised in 2004 that the shot should be included as a routine immunization for children aged 6-23 months.

Dr. Allison said that one study in the Journal of the American Medical Association calculated the vaccine's effectiveness at 66% in any given year, but a recent systematic review published in the Lancet found very little data on vaccine efficacy in children under 2 years old (2005;365:773-80).

A study conducted by Kaiser and the CDC found that the flu vaccine was only 25% effective against influenza-like illness (ILI), and 49% effective against pneumonia and flu, which is defined as a subset of ILI (MMWR 2004;53:707-10), she said.

Her group analyzed billing and immunization registry data from 5,913 healthy 6- to 21-monthold children from five Denver area pediatric practices. ICD-9 codes for office visits between Nov. 1 and Dec. 31 were reviewed to determine the first ILI; the same nine codes were used in the Denver study as in the Kaiser/CDC study, Dr. Allison said.

Children were dubbed either partially vaccinated—one shot during the current season and 14 days before the first influenza-like illness—or fully vaccinated, which was defined as two shots more than 14 days before the first ILI, according to Dr. Allison.

During Colorado's flu season, which peaked early, 36% of the children were unvaccinated, 23.5% were partially vaccinated, and 40.2% were fully vaccinated.

Only 5.8% were fully vaccinated by Nov. 1, and 36.3% by Jan. 1, Dr. Allison said.

Twenty-eight percent of children had an ILI, and 5% had pneumonia or flu, during the season, she said.

The researchers also calculated hazard ratios that accounted for age, gender, and immunization status. They determined that fully vaccinated children were less likely to have ILI (a ratio of 0.45), when compared with unvaccinated children, which was not surprising.

But partially vaccinated children were more likely to have ILI, compared with unvaccinated children, Dr. Allison said. She said the researchers weren't sure why one dose seemed to increase the chance of illness, but said there might be something different about those children or families.

She also wasn't certain why the Denver study showed much higher efficacy than the Kaiser/CDC study but noted that it might be that there was a significantly higher vaccination rate in the Denver population.

All the children in the Denver practices came from more affluent socioeconomic groups, which may have made a difference.

That also limited the study's conclusions, though, she added.

## Don't Miss Out on Vaccinating Asthmatic Kids for Influenza

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WASHINGTON — Missed opportunities for immunizing asthmatic children occur frequently during the influenza season, as documented in a Michigan study, Kevin J. Dombkowski, Dr.P.H., and his colleagues reported in a poster pre-

sentation at the National Immunization Conference sponsored by the Centers for Disease Control and Prevention.

In the study funded by the Michigan Department of Community Health, administrative claims and immunization registry records were ana-

lyzed for 5,993 children aged 5-18 years with persistent asthma who were continuously enrolled in the Michigan Medicaid program during 2001-2003, he reported.

In each year studied, 79% of the children had at least one office visit during the influenza season

Yet, influenza vaccination had been documented for only 14% during the 2001-2002 season and 18% during the 2002-2003 season, with just 7% vaccinated in both seasons, said Dr. Dombkowski, who is senior research associate in the division of general pediatrics, University of Michigan, Ann Arbor.

Among children with no evidence of influenza vaccination, 77% had at least one missed op-

portunity in the 2001-2002 flu season and 75% in the 2002-2003 season, Dr. Dombkowski commented.

During both seasons, nearly all children (95%) with a missed opportunity had made at least one "sick" visit to an o u t p a t i e n t provider, and 22% had at least one

preventive medicine visit, Dr. Dombkowski said in an interview.

A majority of the missed opportunities (55%) occurred October through November, the optimal period for influenza vaccination, while 77% occurred prior to February, the historical peak of flu season, he

"There's a lot of opportunity for improvement out there," he told this newspaper.

—Miriam E.Tucker