Universal Flu Vaccination Would Strain Delivery

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TORONTO — Alternative settings, such as schools, should be considered if universal influenza vaccination is recommended for all U.S. school-age children, Dr. Cynthia Rand said in a poster presentation at the annual meeting of the Pediatric Academic Societies

"Kids aged 6-18 years haven't yet had a recommendation for universal influenza vaccination, but we're expecting this recommendation in the flu season of 2008," Dr. Rand of the University of Rochester (N.Y.), said in an interview.

In the study, she calculated that more that 41.5 million extra visits to pediatric offices would be needed annually to meet the increased demand. Although the emergency department has been suggested as a potential site for universal influenza vaccination (UIV), a related study found the added value of this delivery site would be "modest," at least from a public health perspective, her colleague Christina Albertin, also of the university, reported in another poster.

With data from the 2003-2004 Medical Expenditure Panel Survey (MEPS), Dr. Rand's study calculated the number of well-child and other primary care visits for 4,161 children. From this she estimated the number of extra visits between October and January that would be required for influenza vaccination. It was assumed that children under 9 years would need two visits rather than one visit, if it was their first influenza vaccine. There are new updated American Academy of Pediatric recommendations that first-timers who failed to get their two flu shots should get two for the following year; this would boost the number of visits still further, she commented (Pediatrics 2007;119:846-51).

By focusing specifically on the 6- to 18-year-old age group that is expected to be captured in new UIV guidelines, the study found that for children under 9 years, 33% would need one extra visit and more than 50% would need two—accounting for 16 million additional visits. For 9- to 18-year-old children and teens, 73% would need one extra visit, accounting for more than 25 million additional visits. In total, the 6- to 18-year-old age group would require

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DR. RAND

41.5 million extra visits to pediatricians during the influenza vaccination period, assuming no missed opportunities for vaccination and that 20% of the population had been vaccinated in a prior season.

Individuals who are black, Asian, uninsured, or living in poverty are more likely to need additional visits, she added. The numbers are overwhelming, underscoring the need for new delivery systems, said Dr. Rand. "School-based systems would require a lot of coordination because school nurses would also be overwhelmed. They would need help from the public health infrastructure."

Emergency departments (ED) have been discussed as another possible vaccination delivery site, but the benefits of implementing an ED delivery system are unclear, Ms. Albertin said in an interview.

With data from the MEPS (2002-2004), her study analyzed the number of ED visits from a sample of 10,073 children aged 6 months to 18 years between October and December, and calculated how many of them had also had a primary care visit during that period.

"Overall 3.7% of the children had an ED visit, and about half of them had no primary care visit during that time period, and therefore might have benefited from being vaccinated in the ED," she said. While it's a small percentage of the population, it represents half of the pediatric ED population, suggesting that the benefits of an ED vaccine delivery system may be debatable, she said. "Of course, EDs are busy places, and vaccination probably won't happen consistently, but is 1.9%—that's the percentage who didn't have a primary care visit—enough to start pushing for vaccination in the ED or not?" she asked.

While many pediatricians have been strong supporters of primary care vaccination, without reliance on the ED, Dr. Rand's study suggests perhaps multiple options will be needed. ■