# New AAP PROS study assesses influenza vaccine hesitancy among caregivers of children

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Even caregivers whose children receive the first dose of influenza vaccine may be vaccine hesitant and have inaccurate beliefs regarding influenza vaccine and disease, according to a new American Academy of Pediatrics (AAP) Pediatric Research in Office Settings (PROS) study that was a collaboration between investigators at Children's Hospital of Philadelphia (CHOP), Columbia University Irving Medical Center, and the AAP. Findings from the study will be presented during the Pediatric Academic Societies (PAS) 2019 Meeting, taking place on April 24—May 1 in Baltimore.

The study assessed vaccine hesitancy and influenza disease and vaccine beliefs among caregivers of children who received the first of the two required influenza vaccine doses. To receive adequate protection against influenza, many children six months to eight years old need two doses of influenza vaccine in a season. Only half of those receiving a first dose receive a second.

"In our study, over 90% of caregivers, whose children required two doses of influenza vaccine that season, believed that their child would be 'protected with only one flu shot', and 12% had moderate/high vaccine hesitancy," said Ekaterina Nekrasova, MPH, a research assistant at PolicyLab and the Center for Pediatric Clinical Effectiveness at CHOP, and one of the authors of the study. "Caregivers held other inaccurate beliefs about influenza and vaccination even after their child received

the first of the two required influenza vaccine doses. Our findings emphasize the importance of promoting the second dose influenza vaccination and educating caregivers about influenza disease and vaccination before and after they agree to the first dose."

As part of the NIH-funded Flu2Text national study conducted during the 2017-2018 season, a telephone survey collected demographic information of caregivers (age, English proficiency, education, relationship to a child) and the participating child (age, gender, race, ethnicity, insurance type, health status). Each child received the first dose of influenza vaccine, needed a second dose that season, and was enrolled in a study of text message influenza vaccine reminders. Caregivers completed a validated measure of vaccine hesitancy (PACV-5) and a series of questions to evaluate their knowledge about influenza infection and vaccine.

Researchers assessed the association of caregiver and child demographic characteristics with vaccine hesitancy and influenza beliefs. The standardized (adjusted) proportion of caregivers endorsing each outcome was calculated using logistic regression.

Analyses included responses from 256 participants from 36 AAP PROS primary care network practices across 24 states. The study found that 11.7% of caregivers had moderate or high vaccine hesitancy. A high proportion of caregivers held the following inaccurate beliefs: "flu is just a bad cold" (40.2%); child will be protected with "only one flu shot" (93.8%); "flu shot causes the flu" (57%); children cannot "die from the flu" (68%).

The results from the study underscore the importance for the clinical team to broadly address inaccurate perceptions and promote vaccination even after caregivers agree to the first dose.

**More information:** Nekrasova will present findings from "Vaccine Hesitancy and Influenza Beliefs Among Parents of Children Requiring a Second Dose of Influenza Vaccine in a Season: An AAP PROS Study" on Monday, April 29 at 10:30 a.m. EDT.

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