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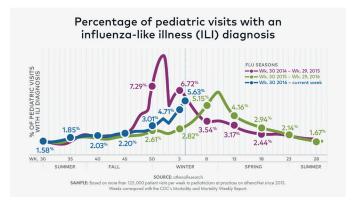
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A mericans might be headed for a worse flu season than last year's, experts say, based on new athenahealth data from pediatric flu visits.

The data shows a sharp uptick in children nationwide visiting their pediatricians with influenza-like illness. The portion of pediatric visits related to the flu rose from 3.3 percent to 5.6 percent over the past three weeks, based on a sample of 125,000 visits per week.

And while it's difficult for researchers to predict the next flu outbreak, pediatric rates are often the first indication of what's to come.



Mathematician Mauricio Santillana, Ph.D., a faculty member in the Computational Health Informatics Program at Boston Children's Hospital, follows the spread of the flu annually for the HealthMap project using data from a variety of sources, including athenahealth's national network of 85,000 providers.

"When kids get sick, they are typically the vectors," spreading the disease to adults and then to the elderly, Santillana says. "If you're seeing an uptick in pediatric visits, I would guess that we would see an increase in cases for everyone in the coming weeks."

And based on the most recent athenahealth data, he says, the 2016-2017 peak is likely to affect more people than the previous season, in both pediatric and adult populations.

Because there are two strains of influenza, two waves typically hit the United States, resulting in an earlier peak around December, and a later peak in the first part of the new year, usually around March. Santillana says comparing December peaks year over year can be a good indicator of how flu seasons will play out. This season's December peak saw a higher volume of flu visits than last season's, so he expects this year's spring peak to be higher, as well. "Given the uptrend I'm seeing right now in pediatric flu cases, I'm thinking the peak will be higher than last year, at least at the national level," he says.

According to athenahealth data, in the week ending January 28, 2.7 percent of patients across all age groups visited their doctors with influenza-like illness, up from 2.5 percent the previous week and 2.0 percent three weeks before. Researchers analyzed 700,000 patient visits per week across primary care, pediatric, retail/urgent care, and emergency departments.

The Centers for Disease Control and Prevention's most recent report of outpatient influenza-like illness rates, for the week that ended on January 21, showed an uptick after a three-week plateau.

So far this season, eight children have died from influenza nationwide, according to the CDC report. Children under 5 are at high risk of serious influenza complications.

Visit athenaInsight's 2016-2017 Flu Dashboard for weekly updates throughout the flu season to see how the virus is spreading across the country.

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