

## CDC Analysis Shows Flu Vaccine Only 23% Effective

Early estimates by CDC show the influenza vaccine to be only 23% effective this year across all age groups, primarily due to antigenic drift of influenza A (H3N2) viruses.

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January 18, 2015 – According to an initial analysis by The US Centers for Disease Control and Prevention (CDC), most cases of influenza this year have been caused by A (H3N2) viruses, two thirds of which have antigenically drifted from the A (H3N2) component of the current vaccine. This drift has resulted in an overall vaccine effectiveness (VE) of 23% against medically-attended acute respiratory illness (ARI) with laboratory-confirmed influenza.

Brendan Flannery, PhD, with the CDC, in Atlanta, GA, and colleagues reported these findings in the January 16, 2015 issue of the *Morbidity and Mortality Weekly Report*.

The study involved five sites and included 2321 patients aged  $\geq 6$  months who presented for outpatient care of ARI between November 10, 2014 and January 2, 2015. Of these patients, 950 were confirmed positive for influenza. The vaccination rate ranged from 46% to 66%. After adjusting for demographics, the VE against influenza A and B infections was determined to be 23% overall. The highest VE was in the 6 months to 17 year age group, with decreased VE for older groups.

Regarding the low VE, the authors state “these early VE estimates underscore the need for additional influenza prevention and treatment measures, especially among persons aged  $\geq 65$  years, young children, and other persons at higher risk for serious influenza associated complications.” CDC recommends antiviral treatment for all hospitalized and all high-risk patients suspected of having influenza, regardless of vaccination status. Updated recommendations for antiviral medications published January 9, 2015 can be found at <http://emergency.cdc.gov/han/han00375.asp>.

The authors further noted “CDC continues to recommend influenza vaccination even when there are drifted viruses circulating because the vaccine can still prevent some infections with the circulating A (H3N2) viruses and might also prevent serious complications requiring hospitalization.” Influenza severity for the current 2014-2015 season has been similar to the 2012-2013 season. CDC modeling suggests that at this level of severity, vaccination with a VE as low as 10% among older populations can prevent close to 13,000 hospitalizations.

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Flannery B, Clippard J, Zimmerman RK, et al. Early estimates of seasonal influenza vaccine effectiveness - United States, January 2015. *MMWR Morb Mortal Wkly Rep*. 2015;64(1):10-15.