

# School flu vaccine program reduces community-wide influenza hospitalizations

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A city-wide school influenza vaccine intervention was associated with a decrease in influenza-associated hospitalizations for all age groups and a decrease in school absence rates among students in seasons with an

effective influenza vaccine, according to a new study published this week in *PLOS Medicine* by Jade Benjamin-Chung of University of California, Berkeley, and colleagues.

Seasonal [influenza](#) contributes substantially to hospitalization and mortality, especially among infants and the elderly. Because [school-aged children](#) are responsible for the greatest proportion of community-wide influenza transmission, efforts to increase vaccination among children are thought to have the greatest potential to prevent influenza epidemics. In the new study, researchers looked at a school-located [influenza vaccination](#) (SLIV) program implemented in more than 95 preschools and elementary schools in Oakland, California. They compared rates of influenza-associated hospitalization and illness-related school absenteeism in the area with the intervention and another nearby school district with similar characteristics that had not been included in the intervention.

At the start of the program, influenza vaccination rates were already more than 50% among [elementary school](#) aged children, higher than the rates seen at the outset of similar interventions. During the first two years of the program, the vaccination efforts had little effectiveness, but during this period, the influenza vaccine recommended for children had low effectiveness. By the third and fourth years of the program, 2016-2017 and 2017-2018, when the vaccine was effective, influenza vaccination coverage was 7 and 11% higher among students in the SLIV site. When accounting for pre-program differences in hospitalizations in each area, in the 2016-2017 [school year](#), this increased vaccination rate was associated with a decrease of 17 influenza hospitalizations per 100,000 people (95% CI decrease of 4-30,  $p=0.008$ ), among all non-elementary-school-aged people in the community. In the following school year, there were 37 fewer influenza hospitalizations per 100,000 people (95% CI decrease of 19-54,  $p$

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