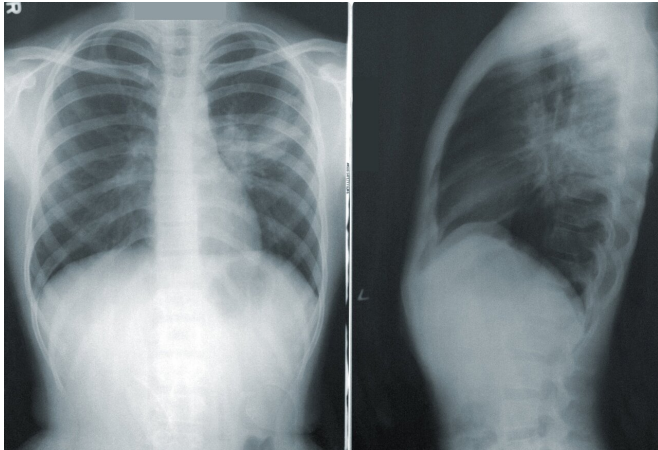


# State laws promoting flu vaccination for hospital workers may help prevent deaths from flu and pneumonia

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Research suggests that state laws promoting influenza vaccination for hospital workers can be effective in preventing deaths from pneumonia and influenza, particularly among the elderly. Findings from a quasi-experimental observational study are published in *Annals of Internal Medicine*.

Seasonal influenza vaccines are a key defense against infection, but they can be less effective in elderly adults and chronically ill persons who are at the greatest risk. The Centers for Disease Control and Prevention (CDC) has long recommended vaccinating [health care workers](#) and several states passed laws requiring that hospitals provide [influenza vaccination](#) onsite for their employees. The effect of these laws on pneumonia and influenza mortality is unknown.

Researchers from the University of Georgia, Montana State University, and Monash University used quasi-experimental, state-level, longitudinal study designs to estimate the association of state

hospital worker influenza vaccination laws with influenza and pneumonia mortality rates. In one design, the researchers conducted a synthetic control analysis to estimate a separate treatment effect for each of the 14 states that adopted a vaccination law between 2002 and 2014. In the other design, they estimated an average treatment effect using a state-level, longitudinal model in which they controlled for national time fixed effects, state fixed effects, and state-specific time trends. Each of these approaches compared differences in mortality rates between states with and without laws in place, before and after law implementation.

The researchers found that the implementation of a state vaccination law was associated with a 2.5% reduction in monthly pneumonia and influenza [mortality rates](#) during the years when the vaccine was well matched to the circulating strains. This implies that during the 2016-2017 influenza year (when 15 states had implemented laws), approximately 1,822 pneumonia and influenza deaths were averted because of the laws. The largest effects occurred among elderly persons and during peak influenza months. According to the researchers, these findings suggest that vaccination laws may be a good way to protect the country's most vulnerable populations.

**More information:** Mariana Carrera et al. Population Mortality and Laws Encouraging Influenza Vaccination for Hospital Workers, *Annals of Internal Medicine* (2021). DOI: [10.7326/M20-0413](https://doi.org/10.7326/M20-0413)

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