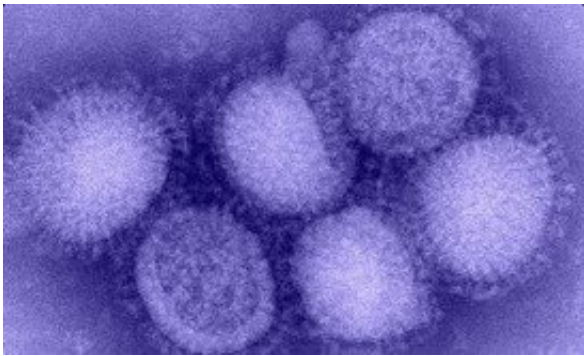


Employed individuals more likely to contract the flu, study shows

June 30 2021



Influenza virus. Credit: CDC, 2020.

A U of A researcher and international colleagues found that employed individuals, on average, are 35.3 percent more likely to be infected with the flu virus.

The findings confirm a long-held assumption about one prevalent way illness spreads and could influence [government policy](#) on [public health](#) and several issues for private companies, from optimal design and management of physical work spaces to policy decisions about sick leave and remote work.

To track influenza incidence, Dongya "Don" Koh, assistant professor of economics in the Sam M. Walton College of Business, and his colleagues relied on nationally representative data from the Medical Expenditure

Panel Survey, which provide comprehensive [health](#) care information about families and individuals, their medical providers and U.S. employers. The survey is the most complete source of data on the cost and use of health care and health insurance coverage.

Koh and his colleagues found significant differences in flu incidence across various occupations and industries. With the former, for example, people working in sales had a 40.5 percent higher probability of infection than farmers. In terms of industries, for example, education, health and social services showed a 52.2 percent higher probability of infection than mining. The results considered individual characteristics, including vaccinations, health insurance and other circumstances.

"Cross-industry differences in flu incidence cannot be fully explained by differences within an industry-specific occupational structure," Koh said. "So we had to look at the extent of human contact and interaction at work as a potential mechanism for contagion."

To do this, the researchers constructed a measure of occupation-specific and industry-specific human exposure and interaction, based on data gleaned from O*NET OnLine, a comprehensive source for the description of jobs, occupational information and workforce development. The researchers found that higher human contact at work was positively associated with higher contagion rates.

The results were larger in years of high aggregate flu incidence and consistent with regard to firm size, number of jobs and hours worked.

"These results shouldn't surprise anyone," Koh said. "We hope they are relevant for an understanding of the spread of flu and other infectious diseases transmitted via respiratory droplets or close human contact, including SARS and COVID. The fact that contagion risk varies across occupations and industries opens the door for an assessment of

nonpharmaceutical policies to combat contagion and possibly pandemics. In this sense, we think these results provide a basis for an organizational policy that both protects workers and optimizes production and efficiency."

In addition to Koh, the research team included Anna Houstecka, research associate in labor economics at the Institute for Employment Research in Nuremberg, Germany, and Raul Santaaulalia-Llopis, a senior research professor of economics at Universitat Autònoma in Barcelona, Spain.

More information: Anna Houšteká et al, Contagion at work: Occupations, industries and human contact, *Journal of Public Economics* (2021). [DOI: 10.1016/j.jpubeco.2021.104456](https://doi.org/10.1016/j.jpubeco.2021.104456)

Provided by University of Arkansas

Citation: Employed individuals more likely to contract the flu, study shows (2021, June 30) retrieved 23 April 2024 from <https://medicalxpress.com/news/2021-06-individuals-flu.html>

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