

Telework during Epidemic Respiratory Illness

[Announcer] This program is presented by the Centers for Disease Control and Prevention.

[Sarah Gregory] Hello, I'm Sarah Gregory, and today I'm talking with Dr. Faruque Ahmed, an epidemiologist at CDC. We'll be discussing how paid leave and teleworking affect attendance during epidemic respiratory illness.

Welcome, Dr. Ahmed.

[Faruque Ahmed] Hi, Sarah. Thank you for having me.

[Sarah Gregory] So, your study was published in the EID journal back in January before SARS-CoV-2. But it's even more relevant now, I think. Tell us about the economic burden of flu and non-flu respiratory infections.

[Faruque Ahmed] Well, every year depending on the severity of the flu season, the economy burden of influenza or the flu in the United States can range from 15 to 64 billion dollars. And lost productivity accounts for a substantial proportion of the economic burden. And for non-flu viral respiratory infections, the economic burden has been estimated to be about 40 billion dollars every year.

[Sarah Gregory] What are the best ways to slow the spread of pandemic—or any kind of flu?

[Faruque Ahmed] So, flu is a potentially serious disease that can lead to hospitalization and even death. And as you know, a yearly flu vaccine is the first and the most important step in protecting against flu viruses. But unfortunately, fewer than one third of adults 18 to 64 years of age were vaccinated in the 2017–18 flu season. For pandemic flu, it may take several months before a vaccine becomes widely available. And so nonpharmaceutical interventions are the first line of defense while waiting for a vaccine. Nonpharmaceutical interventions include social distancing (as you are hearing a lot about nowadays), and staying home when sick, and covering coughs and sneezes, and hand washing. And for employed adults, staying home when ill usually involves taking sick days or working from home. And during a flu illness, some employees may have a telework option—that is, they may be allowed to work from home without having to use paid time off or sick leave benefits. More liberal use of telework may be a good strategy to prevent disease spread in workplaces during seasonal flu outbreaks and in a flu pandemic. But it is good to see that if...if people can work remotely and avoid coworkers and clients, that would be a good situation.

[Sarah Gregory] Tell us about teleworking in the U.S. Roughly how many people have access to it and are there any variables, such as education or type of job?

[Faruque Ahmed] So, the American Time Use Survey, which was conducted in 2018, found that about 24% of employed people in the United States teleworked regularly. This varies from about 8% in production occupations to 34% in managerial and professional occupations. Teleworking also varies with education: 13% of workers with less than a high school diploma telework, compared with 37% of those with a bachelor's degree or higher.

[Sarah Gregory] What about paid sick leave and vacation leave? How many workers have access to these benefits?

[Faruque Ahmed] The National Compensation Survey (conducted in 2018) found that 75% of U.S. civilian workers receive paid vacation leave benefits and about 74% receive paid sick leave.

As you can imagine, paid leave can reduce financial barriers to staying home when someone is sick.

[Sarah Gregory] Your study is about the impact of paid leave and telework on employee production while sick with respiratory viruses. Why did you do this study?

[Faruque Ahmed] Well, three previous studies on the effect of access to paid leave on staying home for flu-like illness or flu reported conflicting results. So two studies found an effect, and one study found no effect. And regarding the impact of access to telework, we found only one study. And so, that study reported that workers who could telework had a lower rate of attending work at their onsite workplace when they had severe flu-like symptoms. But the authors acknowledged that their study was based on only three employers, and so it limited the generalizability of their findings. And for decades, CDC has been recommending staying...staying home when ill as one of the strategies to reduce spread of flu, and this is in addition to an annual flu vaccination. We did this study to understand what effect access to telework and paid leave benefits has on work attendance in people who sought medical care while ill with acute respiratory illness or flu.

[Sarah Gregory] Did you have any hypotheses before you began?

[Faruque Ahmed] Yes. So, we assumed that people with paid leave benefits would be less likely to work from home or their onsite workplace when ill with flu, and that people with access to telework would be less likely to work from their onsite workplace.

[Sarah Gregory] Who did you study?

[Faruque Ahmed] We studied patients seeking care for an acute respiratory illness, with cough, during the 2017–18 flu season, at about 60 outpatient facilities in five states. And these states are Michigan, Pennsylvania, Texas, Washington, and Wisconsin. This flu season was characterized by extended duration, that is, it lasted many months. There was elevated and geographically widespread flu activity across the U.S., and it was a severe flu season for all age groups, including working age adults.

[Sarah Gregory] Okay. Why don't you tell us about your study?

[Faruque Ahmed] Well, in our study adults 19 through 64 years of age were asked to complete a survey 7 to 14 days after they enrolled in the study. And we had a follow-up survey that asked questions about the number of hours expected to work in a week, hours usually teleworked, and whether they had any paid leave that they received from their employer that could be used for an illness. The survey also included questions about work attendance during the first three days of illness, including number of days worked at the onsite workplace and number of days teleworked. And so, about 1,370 adults met the criteria for inclusion in our analysis. Participants who completed the follow-up survey more than 14 days after...after enrollment, were excluded to minimize recall bias. And persons were also excluded if they were unemployed, self-employed, owned their own business, worked solely from home, or were employed less than 20 hours a week.

[Sarah Gregory] What did you find?

[Faruque Ahmed] Well, our study showed very interesting results. So, among the study participants, the median age was 42 years, 64% were female, and 82% were white, and 36% had lab-confirmed influenza. About 15% had access to telework, and 79% had paid leave benefits.

So during the first three days of illness, the total days worked for adults with access to telework than for adults without access to telework was 25% more. And this difference was because of more days teleworking while ill, as there was no difference in the number of days worked at the onsite workplace. Adults without access to telework took more time off because of illness.

In contrast to this, for paid leave, we found that the total days' worked for people with paid leave benefits compared to those without paid leave benefits was 20% less. We also did an analysis to see whether being discouraged from coming to work if they had flu-like symptoms influenced work attendance, and we found that people who were discouraged from coming to work when ill were less likely to work.

So, to summarize our findings, we found that both paid leave benefits and business practices that actively encourage employees to stay home when ill are important to keep employees away from the workplace when ill. And access to telework, when it is feasible, helps retain some work productivity.

[Sarah Gregory] Why would people go to work sick?

[Faruque Ahmed] In previous research, it has been shown that a greater proportion of workers reported going to work always or most of the time when they have a cold or flu, compared with those with more serious illnesses, injuries, or major physical problems. There are many reasons for working while someone has flu-like illness. This includes still being able to perform job duties, not feeling bad enough to miss work, not thinking their illness is contagious or could make other people sick, and professional obligation to coworkers, as well as lack of access to sick leave.

[Sarah Gregory] In what way does this article add to public health knowledge, and why do you think EID chose to publish it out of the very many articles they decline?

[Faruque Ahmed] The desired public health result of employees having access to paid leave and telework is an increased ability to comply with recommendations to stay home when ill, and then this helps reduce risk of virus transmission in the workplace. We found that workers with access to telework used this benefit to work more total days when ill than those without it, but it did not reduce the number of days worked at the onsite workplace. Our study showed that both paid leave benefits and business practices that actively encourage employees to stay home when ill are needed, so that sick employees can stay away.

And regarding the second part of your question, we think that EID chose our article because it has important implications regarding prevention of seasonal flu and flu-like respiratory infectious diseases, as well as for pandemic preparedness and response. And our study provides data to inform the development of evidence-based strategies to keep ill people away from the workplace, and so, reduce workplace-associated transmission of viruses to other employees, clients, and visitors.

[Sarah Gregory] Tell us about your job at CDC—where you work, what you do, and how this study fits in with your career and what you enjoy most about it.

[Faruque Ahmed] Well, I'm an epidemiologist in the Division of Global Migration and Quarantine at the CDC, and my research interests include use of nonpharmaceutical interventions for prevention of...prevention and control of seasonal and pandemic influenza,

with a special emphasis on workplaces. And I greatly enjoy the work because it can have a big impact on saving lives during an infectious disease outbreak or pandemic.

[Sarah Gregory] A lot of people at CDC are now involved in the new coronavirus pandemic response. Are you participating in that work? And even though your study was about flu, I imagine this study is quite applicable to the situation that's going on now, right?

[Faruque Ahmed] Yes. So, I have worked for several months on the COVID-19 pandemic, and it is reassuring to see that many more workers than ever before are teleworking during this pandemic, including from some of the professions that have traditionally not teleworked before, such as newscast hosts, artists, educators, and others. People have been asked to stay at home to avoid becoming infected with and spreading COVID-19, and staying home helps reduce the spread of COVID-19 in their communities and throughout the nation. And as people start returning to work, it will be important to maintain social distancing in the workplace as much as possible. And because COVID-19 spreads more efficiently than flu, and because some people may be...may be infectious even when not showing any symptoms, a greater reliance on telework, where possible, may help to reduce workplace exposure to the virus.

It is good to see that many employers are now providing more paid leave benefits to people who might have COVID-19 or who may be asked to quarantine themselves at home after a potential exposure to COVID-19. Our study shows that providing paid leave is important, but almost equally important are supportive business practices that actively encourage employees to stay home when sick.

[Sarah Gregory] A lot of us at CDC—in fact, most of us—are still teleworking. Are you still at home? And if so, how are your days going?

[Faruque Ahmed] Yes. So, I'm also teleworking all the time from home, and it has been an interesting experience. Before the COVID-19 pandemic, I could not imagine that I would be working—and being productive working—at home all the time. So, now that we have Zoom and other IT features and then we can have meetings with our supervisors and colleagues on Zoom and see each other, so I don't feel that, you know, my work is getting affected in an adverse manner. So, everything is like as before, you know, just working from home.

[Sarah Gregory] What do you do to relieve stress?

[Faruque Ahmed] Well, you know, I have a treadmill at home and so I'm exercising more. And then during the weekend, I'll go out for a drive—no particular place, but just, you know, drive around.

[Sarah Gregory] Well, thank you so much for taking the time to talk with me today, Dr. Ahmed.

[Faruque Ahmed] Yeah, you are welcome, Sarah. And thanks for the opportunity.

[Sarah Gregory] And thanks for joining me out there. You can read the January 2020 article, Paid Leave and Access to Telework as Work Attendance Determinants during Acute Respiratory Illness, United States, 2017–2018, online at [cdc.gov/eid](https://www.cdc.gov/eid).

I'm Sarah Gregory for *Emerging Infectious Diseases*.

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