

Slowing the Next Pandemic: Survey of Community Mitigation Strategies

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[Dan Rutz] I'm Dan Rutz with the Centers for Disease Control and Prevention, here with Lisa Koonin, Senior Advisor in CDC's Influenza Coordination Unit. Ms. Koonin and her colleagues just published results of a survey gauging anticipated public behavior during a severe worldwide influenza pandemic outbreak. Now, the article appears in the May (2008) issue of CDC's journal, Emerging Infectious Diseases. Lisa, many people have probably heard about pandemics but could you start out please by giving us a bit more information. Define it for us. Just what is a pandemic?

[Lisa Koonin] Thanks, Dan. A pandemic occurs when there's a new flu virus. It infects a lot of people, causes illness, and then has the ability to spread rapidly from person to person around the world. Pandemics can spread because people do not have natural immunity to the disease. The worst pandemic of the century infected almost 30 percent of the world's population and caused about 50 million deaths in 1918.

[Dan Rutz] Now there is some concern here at CDC and others in public health that this sort of thing could happen again?

[Lisa Koonin] Yes. We've seen three pandemics in the past century and most experts agree that there will be another one. It's not a matter of if, but when.

[Dan Rutz] Now during a pandemic, health authorities will be asking people to take certain steps. So this study looked at how people might respond during a pandemic, specifically if they think they could follow the recommendations of CDC and others?

[Lisa Koonin] That's right, Dan. During a pandemic, it will take some time to develop a vaccine, which will be our best countermeasure against a pandemic. Also, there may not be enough medication to treat or prevent infections from pandemic. So, some of the important public health recommendations will be given to the public to slow the spread of disease and protect health. These measures are designed to slow the spread of disease in a community, and their success depends on individuals and families taking specific actions. During a pandemic, when no one has immunity to the disease, it will be very important to keep sick people and well people apart. Isolating sick people at home or at hospitals will be an important control strategy.

[Dan Rutz] Lisa, what are some of the other actions you'll be asking people to take?

[Lisa Koonin] Well, in addition to asking sick people to stay home, we will also likely ask those who live in a household with a sick person to stay home, particularly if the pandemic is severe. We'd also likely to see schools dismiss students and childcare programs to close. And we may also recommend social distancing in the community and the workplace. And what that means is keeping people apart, so asking people to work from home if possible, cancelling mass gatherings and other measures.

[Dan Rutz] Let's talk now about the study itself. What were you hoping to find out?

[Lisa Koonin] We wanted to learn whether Americans felt that they would be able to follow these kinds of recommendations during a pandemic. Thankfully, most people said they would be willing to follow them, but not surprisingly, they said it would be difficult if it would severely impact their jobs or their incomes. We also found that these type of recommendations could cause particular problems for lower-income families and minorities.

[Dan Rutz] Sounds like pretty encouraging results. You found people pretty willing to cooperate, didn't you?

[Lisa Koonin] Yes. In fact, 94 percent of the survey respondents said they would stay at home and away from others if they had the pandemic. Fewer, about 85 percent, said that they and their family would stay home if anyone in the household was sick. One of the concerning findings was that about a quarter of these respondents however, said they would have no one to care for them if they had to stay home while sick.

[Dan Rutz] Now, as you point out, some of these recommendations are tough to do. And school cancellation has got to be one of the tougher ones, especially for parents who are working. What did your results show there?

[Lisa Koonin] Well, what we found is that the answer depended on how long the closure might be in place. Nearly all the respondents – 93 percent – who have children in childcare or in school said they thought they could arrange care for those children so that at least one adult could go to work. About 60 percent said that at least one adult who works would have to stay home from work to take care of the children. About 86 percent of respondents who had children in daycare or in school said they thought they could arrange care for these children so that at least an adult could go to work if the children were dismissed from school for three months. Interestingly, about 85 percent of respondents thought that if schools were closed for three months and health officials recommended it, that they would be able to keep their children from going to public events and gathering outside the home.

[Dan Rutz] Sounds like there were also some disparities among how well minorities and low-income families could handle responding to a pandemic.

[Lisa Koonin] In fact, more low-income people, African Americans, disabled people, and the chronically ill said that they would not have anyone to care for them if they were home ill. On top of that, about a third of parents whose children get free meals said it would be a problem if the schools closed and children could not get those meals at school. Although this was only 8 percent of the total respondents who have school-aged children in the survey, faith-based and community groups should plan to assist these families that depend on school meals.

[Dan Rutz] Now, let's talk about the job side and getting down to work. Missing a lot of work has got to be a problem for most Americans, I would think.

[Lisa Koonin] Yes, you're right. A third of respondents said that they would go to work if their employer told them to, even if public health officials advised them to stay home. And we found that about one in five were worried that their employers might ask them to come to work, even if they were sick.

Not surprisingly, what we found is that the longer people would be out of work, the greater the number would think it would cause real financial problems. Three-quarters of people who work said they could miss a week or 10 days of work without having serious financial issues. Roughly the same number said that they would have problems if they stayed home for more than three months. Less than a third said they could work from home and few lower-income workers said that they thought they could work from home, as well. So it could create some real problems for people.

[Dan Rutz] This survey really did generate a lot of valuable insight, it sounds like. And now you have some information on which to make some decisions. So what are you recommending be done to try and prepare for a possible pandemic?

[Lisa Koonin] Well, the response to a pandemic - and the success of a response to a pandemic - is really going to depend on the collective actions of people, individuals, and their families. And there's a number of things that can be done now. We recommend that community organizations, healthcare providers, and public health agencies plan for how they would help those who are sick and had to stay home. And particularly for those who would have no one to care for them. Employers need to develop pandemic preparedness plans and create policies that could promote telecommuting, staggered shifts, and other ways of preventing the spread of disease in the workplace during a pandemic. Employers also need to encourage sick employees to stay home. Employers must be prepared for more people to be out of work during a pandemic - either from illness themselves or taking care of ill persons at home or from parents who have to stay home because schools and daycares have closed. School dismissal will likely be a very effective control measure but it will increase absenteeism at the workplace. Therefore, employers can identify employees now who may need to stay home to supervise children and they can determine in advance if those workers could work from home, if they could be trained in other responsibilities, if other employees can be cross-trained to take on some of their challenges and functions. And by planning now, some of these problems may be lessened. How well these strategies are implemented will, in large part, determine our success at controlling the impact of a severe pandemic. Although these survey results are promising, community mitigation measures will be challenging. Surveys such as these can be very useful to understand how well communities might cope during a pandemic.

[Dan Rutz] Lisa, thank you for joining us today. With us, Lisa Koonin, the Senior Advisor in CDC's Influenza Coordination Unit, here to talk about her study in the May 2008 issue of CDC's journal *Emerging Infectious Diseases*. The study was conducted in collaboration with the Harvard School of Public Health's Project on the Public and Biological Security. You can see that whole article online, visit the CDC website at www.cdc.gov/eid.

If you would like to comment on today's podcast, send us a line via email at [eideditor](mailto:eideditor@cdc.gov), that's one word, at cdc.gov - [www.eideditor@cdc.gov](mailto:eideditor@cdc.gov). We thank you for listening. I'm Dan Rutz.

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