No. 50
April 2009

MERCATUS ON POLICY

PREPARING FOR PANDEMIC FLU: WHAT WE SHOULD AND SHOULD NOT DO

By Tyler Cowen

MERCATUS CENTER
George Mason University

As the numbers of swine flu cases rise in Mexico and the United States, one large factor still looms over mobilizing support for combating a possible pandemic: the "swine flu" debacle of the mid-1970s.[1] That incident has led many people to think that when it comes to influenza pandemics, the cure is worse than the disease. But history has given us millions of good reasons to worry about influenza pandemics: The 1918 "Spanish flu" pandemic may have killed fifty to one hundred million individuals.

Since 2006, Congress has allocated millions of dollars to preparations for an influenza pandemic.[2] While preparation for a pandemic has improved somewhat, such preparation needs to occur in ways that are politically sustainable and remain useful even if a pandemic does not occur. First, Americans need to accept that we can't "stop" a pandemic; we can only lessen its effects. Second, we need to acknowledge in our policies that the best response to such disasters is a decentralized one.

WOULD A MODERN PANDEMIC BE AS BAD AS THE SPANISH FLU?

Some opine that a modern pandemic would not be as deadly as the Spanish flu of 1918. It would kill fewer people due to modern medicine and antibiotics that would limit the number of secondary respiratory infections.[3]

These features may prove significant, but in general our defenses against a killer strain are not strong. Today, because the world's population is larger, the flu has more potential victims. Globalization and advances in international travel would spread the disease more rapidly. And although medical care has improved significantly in the developed world, much of the world still has poor medical care, and most of our potential

solutions—even in wealthy countries—would take many years or months to mobilize.[4]

Furthermore, no country in the world, no matter what any one country claims, has adequate preparation. We do not have a vaccine against this strain of swine flu, and any vaccine would be difficult to produce in large numbers very quickly.[5] The relevant anti-virals are limited in supply and require timely application.[6] Nor should we assume, based on early reports in the United States, that the swine flu will largely be benign. After all, it does not need a high fatality rate to do serious damage. The 1918 pandemic had a fatality rate of only 2.5 percent or less. Yet fifty to one hundred million people died because the flu spread so widely.[7]

The single most important thing we can do for a pandemic—whether swine flu or not—is to have well-prepared local health-care systems.

POLICY PROPOSALS FOR A PANDEMIC

This analysis has two common themes. First, a good response to a pandemic or crisis must allow for effective decentralized action. Detecting a pandemic, instituting protective measures, and applying treatment all require the effective cooperation of many individuals and institutions. A strict top-down approach will not work. If a truly serious pandemic arrives, as a matter of practical fact we are likely to be "on our own" with respect to the federal government. There will not be nearly enough centralized response capacity. Local health-care institutions therefore must be both free and able to respond to crises.

Second, policy proposals must be consistent with realistic assumptions about human behavior and human self-interest. In a crisis, not all people will behave like angels and not all plans will go well. People will game systems and start black markets. Many allocation mechanisms will break down and unforeseen kinks will appear in supply chains. A plan should consider unintended consequences; it does not suffice to have good intentions and a plan on paper.

WHAT SHOULD WE DO?

To combat a possible swine flu pandemic, we should consider the following:

1. The single most important thing we can do for a pandemic—whether swine flu or not—is to have well-prepared local health-care systems. We should prepare for pandemics in ways that are politically sustainable and remain useful even if this turns out not to be a flu pandemic.

2. Prepare social norms and emergency procedures that would limit or delay the spread of a pandemic. Regular hand washing and other beneficial public customs—like not going to work when feeling sick—may save more lives than a Tamiflu stockpile.

3. Decentralize our supplies of anti-virals and treat timely distribution as more important than simply creating a stockpile.

4. Institute prizes for effective vaccines and relax liability laws for vaccine makers. Our government has discouraged what it should have encouraged.

5. Respect intellectual property by buying the relevant drugs and vaccines at fair prices. Confiscating property rights would reduce the incentive for innovation the next time around.

6. For the case of a truly serious pandemic, make economic preparations to ensure the continuity of food and power supplies. The relevant "choke points" may include the check-clearing system and the use of mass transit to deliver food supply workers to their jobs.

7. Realize that the federal government will be largely powerless in the worst stages of a pandemic and make appropriate local plans.

8. Encourage the formation of prediction markets—speculative markets that make forecasts on policy topics—in a flu pandemic.

9. Reform the World Health Organization and give it greater autonomy from its government funders.

To some extent, these recommendations go against the U.S. national character. America typically responds to challenges by refusing to admit it can fail. We have a "can do" mentality. We built the first atomic bomb; we put a man on the moon; we revitalized the American economy in the 1980s and 1990s; and so on. We tend to seek out paths which offer some option, however unlikely, of apparent invulnerability. This trait is highly admirable, and it has been responsible for much of our national greatness. Nonetheless it may hinder our progress in

fighting a flu pandemic. For instance, systematic stockpiles and centrally and military-directed quarantines both give the impression that we can control the course of the pandemic. We would be making a highly symbolic and visual stand of "We won't just let this happen."

Our approach should be different. Preparing emergency rooms or instructing people to wash their hands would be, in effect, admitting that the disease will spread and kill people. It is a partial admission of "defeat." Should a pandemic occur, we need to admit that we cannot stop a terrible event. We can only lessen its effects.

WHAT SHOULD WE NOT DO?

We should not do the following:

1. Tamiflu and vaccine stockpiling can be important, but we should not rely on them to the exclusion of other plans. In addition to the medical limitations of these investments—as the virus evolves it may become resistant to Tamiflu and other anti-virals, just as bacteria have developed resistance to certain antibiotics—institutional factors will restrict the prompt allocation of these supplies to their proper uses.

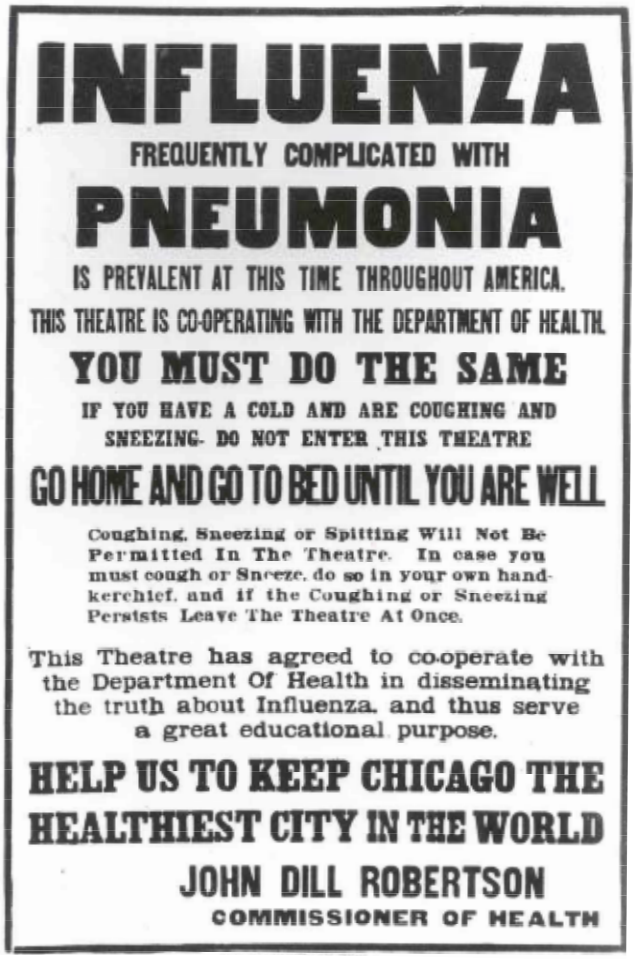
2. We should not expect the Army or Armed Forces to be part of a useful response plan. Military intervention can be counterproductive and could spread, rather than limit, a pandemic.

3. We should not expect to choke off a pandemic in its country of origin. Once a pandemic has started abroad, we should close schools and many public places immediately.

4. We should not obsess over the flu at the expense of other medical issues. The next pandemic or public-health crisis could come from any number of sources. Focusing on local preparedness and decentralized responses would create a plan robust to surprise and useful for responding to terrorism or natural catastrophes.

CONCLUSION

In short, we should spend more on local health infrastructure, emergency rooms, and general disaster preparation and less on centralized command-and-control approaches, including quarantine, isolation, and use of the military. Stockpiling vaccines and drugs has a real rationale, but we must make sure some of the money goes toward a good distribution plan. In addition to being prudent, these recommendations point to relative cost-effective means of protecting against a flu pandemic and should be welcome in an age of fiscal constraints.


INFLUENZA

FREQUENTLY COMPLICATED WITH

PNEUMONIA

IS PREVALENT AT THIS TIME THROUGHOUT AMERICA.

THIS THEATRE IS CO-OPERATING WITH THE DEPARTMENT OF HEALTH

YOU MUST DO THE SAME

IF YOU HAVE A COLD AND ARE COUGHING AND SNEEZING- DO NOT ENTER THIS THEATRE

GO HOME AND GO TO BED UNTIL YOU ARE WELL

Coughing, Sneezing or Spitting Will Not Be Permitted In The Theatre. In case you must cough or Sneeze, do so in your own handkerchief, and if the Coughing or Sneezing Persists Leave The Theatre At Once.

This Theatre has agreed to co-operate with the Department Of Health in disseminating the truth about Influenza, and thus serve a great educational purpose.

HELP US TO KEEP CHICAGO THE HEALTHIEST CITY IN THE WORLD

JOHN DILL ROBERTSON

COMMISSIONER OF HEALTH

While this analysis focuses on swine flu, we should not lose sight of the broader issues. The question is not just how to fight a pandemic in the near future, but also how to prepare for pandemics more generally. Just as SARS and AIDS were unexpected when they arrived, so might the next pandemic be a complete surprise. We should not fixate on protecting against swine flu at the expense of alternative possible pandemics. We only know that the danger is especially high and the risk especially severe at the current moment. But we must live with these risks for a long time, not just for the next few years.

We must resist the tendency to "cry wolf" and focus on only a single warning for a single disease. The true dangers are diverse. As the "swine flu" debacle of the mid-1970s showed, if the case for fighting swine flu is made in the wrong way this time, it will be that much harder to convince politicians to take action the next time around. And we need plans not just for the here and now but also for a longer-term series of risks. Because it is imprudent to prepare for a single catastrophe at a

single time, these recommendations focus on effective healthcare institutions at the micro level so that they can protect us against many different kinds of future catastrophic events.

ENDNOTES

1. In 1976, an outbreak of the swine flu in Fort Dix, New Jersey resulted in one death and unnecessary mass vaccinations that may have caused several cases of Guillain-Barré syndrome. See Patrick Di Justo, "The last great swine flu epidemic," *Salon.com* (April 28, 2009); J.C. Gaydos, F.H. Top, R.A. Hodder, P.K. Russell, "Swine influenza A outbreak, Fort Dix, New Jersey, 1976," *Emerging Infectious Disease* 12, no. 1 (2006), http://www.cdc.gov/ncidod/EID/vol12no01/05-0965.htm.

2. Bob Brewin, "Spending bill cuts pandemic preparedness budget request," *Government Executive*, December 19, 2007; Jeffrey Levi, Serena Vinter, Rebecca St. Laurent, and Laura M. Segal, *Ready or Not? Protecting the Public's Health from Diseases, Disasters, and Bioterrorism* (Washington, DC: Trust for America's Health and the Robert Wood Johnson Foundation, 2008), 55–60.

3. Stephen S. Morse, "Pandemic influenza: Studying the lessons of history," *Proceedings of the National Academy of Sciences of the United States of America* 104 (2007): 7,314, http://www.pnas.org/content/104/18/7313.full.

4. An extrapolation of the 1918 death rate to the current time estimates that 96 percent of the deaths in an influenza pandemic like 1918 would occur in the developing world. Christopher J.L. Murray, Alan D. Lopez, Brian Chin, Dennis Feehan, and Kenneth H. Hill, "Estimation of potential global pandemic influenza mortality on the basis of vital registry data from the 1918–20 pandemic: a quantitative analysis," *The Lancet* 368 (2006): 2,211–221, http://www.thelancet.com/journals/lancet/article/PIIS0140673606698954/fulltext.

5. Clara Moskowitz, "Swine Flu Vaccine Could Take 6 Months," *LiveScience.com*, April 27, 2009, http://news.yahoo.com/s/livescience/20090427/sc_livescience/swinefluvaccinecouldtake6months.

6. Laura MacInnis, "Poor countries could face swine flu drug shortages," *Reuters*, Apr 27, 2009, http://www.alertnet.org/thenews/newsdesk/LR672817.htm; Centers for Disease Control and Prevention, "Interim Guidance on Antiviral Recommendations for Patients with Confirmed or Suspected Swine Influenza A (H1N1) Virus Infection and Close Contacts," http://www.cdc.gov/swineflu/recommendations.htm.

7. Jeffery K. Taubenberger and David M. Morens, "1918 Influenza: the Mother of All Pandemics," *Emerging Infectious Disease* 12, no. 1 (2006), http://www.cdc.gov/ncidod/EID/vol12no01/05-0979.htm.

The Mercatus Center at George Mason University is a research, education, and outreach organization that works with scholars, policy experts, and government officials to connect academic learning and real-world practice.

Tyler Cowen is the general director of the Mercatus Center at George Mason University and holds the Holbert C. Harris Chair of Economics at George Mason University. He also serves on the Mercatus Center's board of directors.

A dedicated writer and translator of economic ideas who often delves into the economics of culture, Dr. Cowen has published dozens of books, reviews, and articles. His most recent book, *Discover Your Inner Economist*, shows how economic notions apply widely. He contributes frequently to *The New York Times* and *Money*, serves on the advisory boards of both *Wilson Quarterly* and *American Interest*, and writes daily for his popular Web log, The Marginal Revolution.