CDC Responds: Contagious Disease Outbreaks & How Public Health Works

**Background:** Warner Bros.’ feature movie “Contagion,” opening September 9, fictionalizes the world’s emergency response to a novel respiratory disease outbreak. The movie, with brief action filmed at the CDC Headquarters in Atlanta, follows the process to investigate and respond to an unfolding outbreak.

**Key Messages**

This is a movie, not a documentary; it is designed first to entertain, but we understand some of it is quite credible.

CDC does not endorse or promote any commercial product (including movies).

Yes, a new, deadly disease can emerge anywhere at any time—right here or just a plane ride away from here.

While CDC, working with state and local health departments, is finding the cause and how to control a contagious disease outbreak, you can protect yourself by washing your hands, staying away from ill people, and being prepared to shelter in place if necessary.

*Here are some Q/As to help you talk about the facts behind the fiction.*

**What was CDC’s role in the making of the movie Contagion?**

The film’s writers talked with CDC scientists as they developed the idea for the movie. CDC allowed some movie scenes to be shot at CDC. A handful of CDC’s workforce took a vacation day to work as extras in some crowd scenes. CDC had no creative control. CDC did review the script. CDC is not allowed to endorse or promote viewing any commercial film. The premise of the film and some scenes are quite credible. CDC understands this is a film that both entertains and educates, not a documentary.

CDC’s Smithsonian-affiliated museum, David J. Sencer CDC Museum located at its Atlanta headquarters, was a site filmed for the movie. It is open to the public and receives about 60,000 visitors each year.

**Can what happened in this film really happen?**

Serious, deadly contagious disease outbreaks can and do happen. CDC investigates new contagious diseases—averaging one new or reemerging contagion per year. These new contagious diseases can emerge right here or only a plane-ride away from here.

It’s not just new diseases that threaten the United States. Some diseases long thought controlled in the United States, like tuberculosis, can reemerge and be more deadly than ever.

CDC is on 24/7 to answer the call when a community or a country needs help to save lives and protect people from health threats. How many people get sick and die immediately depends on the following:

- the rapid detection of the disease organism,
- a clear understanding of how it is spread person-to-person, and
- what is needed to stop ongoing transmission.

At that point it is a race to find the best way to treat and prevent the disease.

CDC is on the frontline 24/7 providing national health security and its success depends on many factors:
How many trained scientists it has available to respond
The quality of its laboratories
The available means to collect and transmit its findings
The degree to which people take action to protect themselves and stay healthy

Is CDC prepared?

CDC is always preparing for and working to prevent the next disease pandemic. At the center of the nation’s health security system, CDC and public health across the nation exists to protect communities and save lives by controlling disease outbreaks like the 2009 H1N1 pandemic. The CDC’s Emergency Operations Center (EOC) serves as the command center for monitoring and coordinating emergency response to public health threats in the U.S. and abroad. Staffed around-the-clock, the EOC serves as CDC’s central point of contact for reporting public health threats such as pandemic flu, natural disasters and terrorist attacks.

How would CDC control an outbreak?

If a pandemic, like novel H1N1, should occur CDC would conduct an investigation and provide technical assistance to cities, states or international partners dealing with the outbreak. This assistance would include consultation, lab testing and analysis, recommendations on patient management and care, tracking of contacts and infection control (including isolation and quarantine). CDC’s primary goals would be to determine the cause of the illness, the source of the infection/virus/toxin, learn how it is transmitted and how readily it is spread, how to break the cycle of transmission and prevent further cases and how patients can best be treated. Not only would scientists be working to identify the cause and cure of the outbreak, but CDC acting with other federal and international agencies would send medical teams and first responders to help those in affected areas. CDC would work closely with state and local public health officials. Scientists in the labs of CDC would help develop a vaccine to combat the virus, distribute and administer it to the public.

What can people do to protect themselves during an outbreak when there is no cure?

CDC has given much thought to that question. We know the actions people take personally can help reduce the disease in their community during an outbreak.

We call the actions they can take when there are no or limited supplies of drugs or vaccines, Nonpharmaceutical interventions, also known as NPIs. These are actions individuals and communities can take to help slow the spread of germs like flu that do not involve the use of vaccines or medicines.

- Individual actions include:
  - Washing hands
  - Covering coughs and sneezes
  - Staying home when sick
- Community actions include:
Pre-decisional document – planning purposes only

- Increasing space between people by changing seating arrangements, schedules, or attendance in places where people gather, like schools and businesses
- Temporarily closing schools under certain circumstances
- Cancelling or postponing mass gatherings under certain circumstances

Based on current research, modeling studies, and lessons learned from past flu pandemics, NPIs can help slow the spread of flu in communities, especially before vaccines and medicines become available.

CDC recommends that everyone take preventive actions, such as washing hands often, covering coughs and sneezes, and staying home when sick.

**Does CDC warn people if there’s an outbreak in another country?**

CDC does issue travel advisories on its website. Every year more and more Americans are traveling internationally — for vacation, business, and volunteerism, and to visit friends and family. Whatever your reason for traveling, consider obtaining information to help you to be **Proactive**, **Prepared**, and **Protected** when it comes to your health—and the health of others—while you are traveling. Take steps to anticipate any issues that could arise during your trip.

- Learn about your destination.
- See a doctor before you travel.
- Think about your health status.