What Would It Take for Measles to Return Permanently to the US

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Measles was declared “eliminated” from the U.S. 15 years ago by the U.S. Centers for Disease Control and Prevention but recent outbreaks have health experts concerned that the disease could make a more permanent return to the U.S. if vaccination rates fall. With at least 64 confirmed cases of measles this month, the disease seems on pace to have its worst year in nearly two decades.

Dr. Stephen Morse, an infectious disease expert at Columbia University Mailman School of Public Health, said for measles to become permanent -- that is, become "endemic" -- again to the U.S., measles immunizations would have to drop below 90 percent.

“It is highly contagious,” Morse said of measles, noting that every infected person could infect another 10 to 20 non-immune people. “You could have sporadic cases anytime [immunization levels] fall below something that approaches 90 to 95 percent.”

Currently the national immunization rate for measles is 91.9 percent as of 2013, according to the CDC. However during this time pockets of unimmunized people have helped fan recent outbreaks, the agency noted. “The concern is that some groups are opting out of vaccination,” the CDC said in a statement to ABC News. Over time they become “susceptible to outbreaks despite high national vaccine coverage levels.” In the last month, a measles outbreak has infected at least 102 people in 14 states, according to U.S. health officials. Last year, 644 people were infected with the virus in various outbreaks.

Before the measles vaccine was introduced in the U.S., approximately 3 to 4 million people were infected with the virus every year, nearly 50,000 were hospitalized and 400 to 500 people died of the virus, according to the CDC. The disease was considered eliminated by the CDC in 2000 due to an absence of continuous transmission of the disease over 12 months.

If enough people are not protected, the virus could be re-introduced from abroad and then continuously circulate throughout the country, meaning it has become endemic again in the U.S.

Morse, who had measles as a child, said he hoped parents on the fence about vaccines would reconsider in the wake of the latest outbreak. "I would say there’s no comparison between having the disease and having the vaccine," said Morse. "Even in the best case, [measles] really knocks you out."

The CDC currently recommends two shots to protect against measles -- one at 12 to 15 months and another between the ages of 4 to 6 years. One shot will provide 95 percent protection and two will provide 99 percent protection, according to the CDC.

The virus remains endemic to many other parts of the world, including Africa, Europe and parts of Asia. In these areas, measles remains a deadly problem, killing on average 400 people every day across the globe, according to the World Health Organization.

Everything You Want to Know About the Measles

By SYDNEY LUPKIN (@slupkin) / Jan 30, 2015, 1:05 PM ET

The measles have made a comeback with 84 cases in the latest outbreak, not to mention 644 cases last year alone. Given that the infectious disease was eliminated more than a decade ago by vaccines, it's not surprising that its resurgence has some people scratching their heads. Here's what you need to know:
What is measles?

It is a viral disease that is extremely contagious, according to the Centers for Disease Control and Prevention. Every person who gets it can spread it to an average of 18 other people. It starts with a fever, a runny nose and a cough, but a few days later, tiny white spots appear in the mouth. Then a rash appears and spreads throughout the body, and that fever can spike to 104 degrees. "The infection itself, uncomplicated, is seven days of abject misery as a child," said Dr. William Schaffner, chief of preventive medicine at Vanderbilt University in Nashville, Tennessee.

But many young doctors are slow to recognize measles and may not realize its potential dangers, said Dr. Richard Besser, ABC News' chief health and medical editor. This may have contributed to the current outbreaks.

About one or two in every 1,000 people who get it will die, according to the CDC. The disease was so widespread that hundreds of thousands of children died before a vaccine was introduced, Schaffner said.

How is it spread?

The measles virus is airborne, meaning it can spread through the air and can remain airborne for a few hours. You can catch it from an infected person even after that person has left the room. According to the CDC, a sick person will spread the measles to 90 percent of the people close to them that are not immune.

The virus can also survive on surfaces for up to two hours, according to the CDC.

Why is it making a comeback?

A measles vaccine was first licensed in 1963, and then lumped into the MMR vaccine in 1971, according to a timeline by the College of Physicians of Philadelphia. The vaccine is 95 percent effective and measles is considered a vaccine-preventable disease.

Cases steadily declined, reaching an all time low of 37 cases in 2004, according to CDC data. But thanks to "clusters" of unvaccinated people in the United States, coupled with increased international travel, cases are back up. "Those clusters fuel the imported outbreaks," Schaffner said, adding that the clusters are often well-educated but misinformed parents who lack "respect" and "fear" of the disease because they've never experienced it. Many fear that the MMR vaccine will cause autism, though the claim has since been debunked and the doctor who authored the fraudulent study has lost his medical license.

The CDC reported 644 measles cases in 2014 alone as part of about 20 separate outbreaks.

Treating measles

There is no specific treatment for measles, but the condition usually improves without treatment within 7-10 days.

Relieving symptoms

If the symptoms of measles are causing discomfort for you or your child, there are some things you can do to treat these while you wait for your immune system to fight off the virus.

Controlling fever and relieving pain

If necessary, paracetamol or ibuprofen can be used to reduce a high temperature (fever) and treat any aches or pains. Liquid infant paracetamol can be used for young children. Aspirin should not be given to children under 16 years old.
Speak to your pharmacist if you are not sure which medications are suitable for your child.

*Drink plenty of fluids*

If you child has a high temperature, make sure they drink plenty of fluid because they may be at risk of dehydration. Keeping hydrated will also help reduce discomfort caused by coughing.

*Treating sore eyes*

You can gently clean away any crustiness from your eyelids and lashes using cotton wool soaked in water.

Closing curtains or dimming lights can help reduce any light sensitivity.

*Treating cold-like symptoms*

If you have cold-like symptoms such as a runny nose or a cough, there are a number of things you can do to feel more comfortable.

For example, steam inhalation may offer some relief from a cough. This involves sitting with your head over a bowl of hot water. Place a towel over your head, close your eyes and breathe deeply, while trying not to get the hot steam in your eyes.

Steam inhalation is not advised for children because of the risk of scalding, but it might help your child if they sit in a hot, steamy bathroom. Alternatively, putting a wet towel on a warm radiator will release more water into the air.

Giving your child warm drinks, particularly ones containing lemon or honey, may also help to relax their airways, loosen mucus and soothe a cough. However, honey should not be given to babies under 12 months.

*Limiting the spread of infection*

While you have measles, it is important to reduce the risk of spreading the infection to other people.

If you or your child have the condition, you should avoid work or school for at least four days from when you first developed the measles rash.

You should also try to avoid contact with people who are more vulnerable to the infection, such as young children and pregnant women.

*Spotting signs of serious illness*

If you or your child have been diagnosed with measles, you should keep an eye out for any signs of the serious complications that can develop while your body is trying to clear the infection.

Signs of a more serious problem can include:

- shortness of breath
- a sharp chest pain that feels worse with breathing
- coughing up blood
- drowsiness
- confusion
- convulsions (fits)

Visit your nearest accident and emergency (A&E) department or called 999 for an ambulance if you or your child develop any of these symptoms as they may be a sign of a serious bacterial infection requiring admission to hospital and treatment with antibiotics.

**Complications can develop from measles, some of which can be extremely serious.**

It's estimated that around one in every 5,000 people with measles will die as a result of a serious complication (NHS UK).

Complications of measles are more likely to develop in certain groups of people, including:

- babies younger than one year old
- children with a poor diet
• children with a weakened immune system, such as those with AIDS or those having chemotherapy for leukaemia
• teenagers and adults

Children who are older than one year and otherwise healthy have the lowest risk of developing serious complications.

**Common complications**

More common complications of measles include:

• diarrhoea
• vomiting
• middle ear infection (otitis media), which can cause earache
• eye infection (conjunctivitis)
• inflammation of the voice box (laryngitis)
• pneumonia, bronchitis and croup (infections of the airways and lungs)
• fits caused by a fever (febrile seizures)

**Uncommon complications**

Less common complications of measles include:

• liver infection (hepatitis)
• misalignment of the eyes (squint), if the virus affects the nerves and muscles of the eye
• infection of the membranes surrounding the brain and spinal cord (meningitis) and infection of the brain itself (encephalitis)

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**En France**

40 cas déclarés en 2006 et 44 en 2007, mais on est passé à 600 en 2008, 1 500 en 2009 et plus de 5 000 cas en 2010.

**Consignes :**

A partir des informations contenues dans les lignes qui précèdent, préparez pour des lecteurs français un petit document structuré (dépliant ou fiche-conseil) comme on peut en trouver sur les présentoirs des pharmacies, concernant différents problèmes de santé publique – par exemple migraine, tension, jambes lourdes, etc. Thème traité : la rougeole, information, prévention, alerte.

Pensez entre autres
• à indiquer clairement sur votre dépliant l’origine du document : Caisse d’Assurance Maladie, Ordre des Pharmaciens, laboratoire privé...
• à adapter le niveau de technicité et le contenu du texte en tenant compte du public visé.

**Calibre** : un feuillet A4 recto verso. Mise en page et pliage libres.