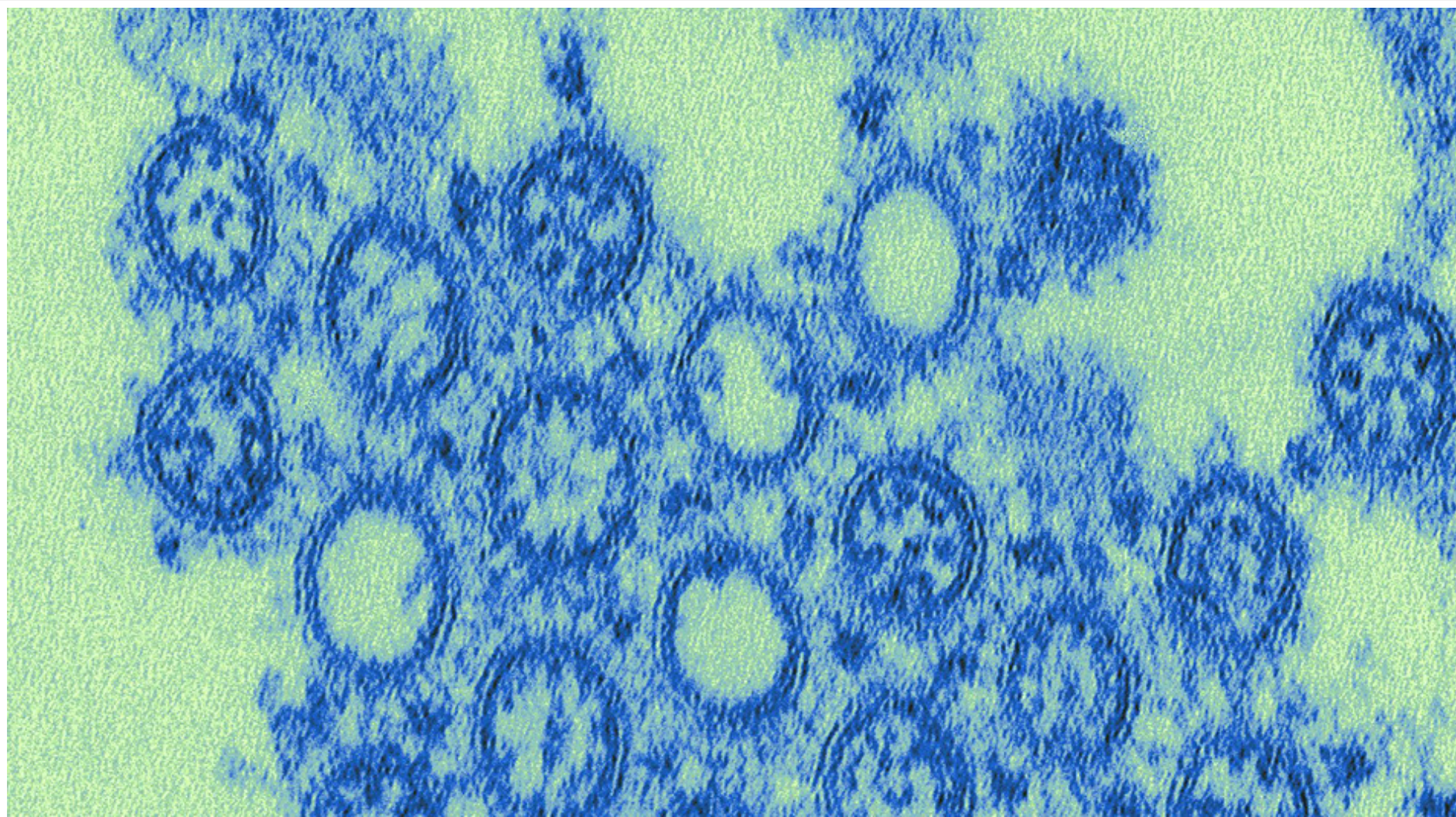


10 Years Later: The Lasting Impacts of the H1N1 Flu Pandemic Response

April 15, 2019 by Blog Administrator



As coincidence would have it, [Dr. Stephen Redd](#) was wrapping up an influenza (flu) pandemic planning meeting on April 15, 2009, when someone on the phone reported that a [new \(or novel\) influenza A virus](#) had infected a 10-year-old boy in California.

Things moved fast after that.

The Response

Two days after CDC confirmed the first case, laboratory testing confirmed a second infection with the same virus in another patient. CDC worked closely with state and local public health officials to investigate reported cases and to detect additional cases of human illness with this virus.

On April 21, CDC published a special report in the [Morbidity and Mortality Weekly Report \(MMWR\)](#) that described the first two cases, and requested that state public health laboratories send to CDC all influenza A positive specimens that could not be [subtyped](#). Within three days, additional specimens from patients with the new virus infection arrived at CDC for testing. CDC's Influenza Division laboratory testing confirmed that these samples also were positive for the virus that would come to be called "[2009 H1N1](#)."

On April 22, 2009, the CDC activated its Emergency Operations Center with Dr. Redd as Incident Commander. Dr. Redd was then the director of the Influenza Coordination Unit (ICU)—a group tasked with coordinating CDC's preparation for an influenza pandemic, a role that provided unique and useful insight into pandemic response and interagency collaboration.



[Stephen C. Redd, MD, RADM](#)

The new virus spread quickly through the spring and summer. Within weeks, new cases were reported across the United

States and the world.

On June 11, 2009, the World Health Organization (WHO) declared a global influenza pandemic.

Lasting Impacts

CDC's response lasted nearly a year. Over those many months, CDC remained at the forefront of the global response—sharing laboratory reagents for diagnostic testing with states and ministries of health; using gene sequencing; estimating U.S. cases, hospitalizations, and deaths from the pandemic every month; and working to implement a domestic vaccination program, increase antiviral drug use, and ensure clear guidance on personal protective equipment.

As with previous pandemics, the scientific community, including experts at CDC, took away learned lessons that influence how we prepare and monitor for future pandemics.

The [Influenza Risk Assessment Tool](#) (IRAT) is one example. The IRAT assesses the potential pandemic risk posed by influenza A viruses currently circulating in animals (but not in humans). The IRAT evaluates animal-origin flu viruses based on their risk of emergence (acquiring the ability to spread easily and efficiently in people) and their potential public health impact. It does not forecast pandemics. Influenza viruses are too unpredictable.

CDC scientists also developed a tool to assess the severity of a future pandemic—the Pandemic Severity Assessment Framework (PSAF). Once a novel influenza A virus is identified and is spreading from person-to-person in a sustained manner, public health officials use the PSAF to help determine the impact of the pandemic. The results of a PSAF impact assessment help public health officials and health care professionals make timely and informed decisions, and take appropriate actions.

Pandemic Preparedness

Influenza pandemics are uncommon; only three have occurred since [the 1918 pandemic](#). Yet, influenza pandemics are one of the world's greatest public health threats because of their potential to overwhelm public health and healthcare systems, and cause widespread illness, death, and social disruption. And because influenza viruses continuously mutate and have shown the ability to generate viruses that humans have low levels of immunity to, we know an influenza pandemic could come at any time.

For that reason, CDC continues to evaluate areas where the nation can be more ready. In fall 2018, CDC conducted its largest functional exercise to date. The exercise included over 500 staff and partners across the United States government and the public and private sectors.

Moreover, because it takes time to develop an influenza vaccine matched with circulating viruses, and medical and other supplies could be limited, [personal health preparedness](#) and prevention measures are important. Here are five (5) things that you can do to prepare for a pandemic.

1. Get an annual flu vaccine to protect you against seasonal influenza. A seasonal flu vaccine will NOT protect you against a novel influenza A virus; but it is good practice and lays the groundwork for development and administration of a pandemic flu vaccine.
2. Learn, teach to others, and practice [everyday preventative actions](#) that can help slow the spread of germs. Stay home when you are sick. Avoid close contact with people who are sick. Social distancing (avoiding close contact with others) is one of the most important [personal nonpharmaceutical interventions](#) that people can take to help avoid getting sick. Cover your coughs and sneezes. Wash your hands often.
3. Create an emergency supplies kit that includes [personal needs](#), such as soap, hand sanitizer with at least 60 percent alcohol, and tissues.
4. Get to know your neighbors; especially those who are elderly, live alone or with a disability, are without transportation, and/or depend on medical equipment. Close-knit communities are often more resilient in a disaster, like a pandemic.
5. Keep up to date on health news, and turn to reliable sources of information like your local government. Monitor local news coverage for public health advisories and information about temporary school closures and large event cancellations. Beware of misinformation and rumors, especially on social media.

For additional information on how to prepare for a pandemic, download the [Get Your Household Ready for Pandemic Flu](#) [checklist](#).

Thanks in advance for your questions and comments on this Public Health Matters post. Please note that the CDC does not give personal medical advice. If you are concerned you have a disease or condition, talk to your doctor.

Have a question for CDC? CDC-INFO (<http://www.cdc.gov/cdc-info/index.html>) offers live agents by phone and email to help you find the latest, reliable, and science-based health information on more than 750 health topics.

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[Flu](#), [personal health](#), [preparedness](#), [prevention](#), [public health](#), [response](#)

[Emergency Operations Center](#), [flu](#), [H1N1](#), [influenza](#), [Influenza Risk Assessment Tool](#), [pandemic](#), [Pandemic Severity Assessment Framework](#), [seasonal flu](#), [Stephen Redd](#), [vaccine](#)

13 comments on “10 Years Later: The Lasting Impacts of the H1N1 Flu Pandemic Response”

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I lost an educated and intelligent brother unexpectedly to H1N1, we must never underestimate the potential severity of pandemics upon ecosystems, of which humans are just one semi-known factor. Please do your part and get your flu vaccine; it is not a guarantee, but is the weapon of choice we have available for today.

The US and other parts of the world are poised for a new pandemic.
Why????

The major cause is the housing crisis across the world; the loss of housing to families and individuals due to rising rents and living on the streets.

When people/families have no way to “clean” themselves or keep their families clean, it all goes on the streets, bushes, sidewalks, etc. Then it gets hosed off into cutters, sewers, into water, rivers etc. The system is overloaded and some of it comes back in the water we drink, our soil, our air. THAT S WHAT BRINGS ON THE PANDEMIC!

The realtors, land owners, financial people looking to make a buck as well as city, state, and federal have supported and allowed the land owners to treat housing like a water faucet paying no attention to the /human and environmental cost. We have local/state and federal government that supports this as “business”.

Nation Magazine just wrote a recent in-depth article on how we got here! We may not have much time before the pandemic hits. NO ONE WILL BE EXEMPT. The consequences are loss of whole cities, countries. even of human kind. This would be extinction on a global scale.

We need to house people NOW. We cannot wait.!!!

As a former ED nurse, I constantly saw many patient’s not only with the flu, but those that chose not to get the vaccine. Many would say that they “ended up getting the flu from the vaccine itself”. While this is not true, they still refused to get vaccinated and was not comfortable with the idea. Vaccinations are imperative to ensure the safety of our children, the immunocompromised as well as our geriatric patients. While we do not know what the next flu season will hold, we still have to continue to stay prepared. It is also important that during flu season we continue hand hygiene as well as watching for flu symptoms. If suspected symptoms occur, the best thing would be to stay home.

As a former ED nurse, I have seen many patients with the flu as well as those that choose not to be vaccinated. Many times I have asked why they are against it, many will say “because it gives me the flu itself and I rather not.” While this is not true, I think that it is important that by vaccinating ourselves we are protecting our children, the immunocompromised as well as our geriatric populations. We may not know what each flu season brings, how bad it is and what the mortality/morbidity rates will be, but we do know what symptoms to look for and that increasing our hand hygiene can help with lowering our chances of getting it. We have to be prepared at all cost, stay assertive with the news and ensure that if we get the flu we are keeping hydrated and monitoring our symptoms closely. Each season brings something different and it’s up to us to be able to keep those around us as well as ourselves as safe as possible.

Hello,

In light of recent events, specifically with the measles outbreak in New York, the importance that this article highlights continues to provide guidance for future pandemic episodes. Not choosing to get the vaccine, does one more harm than good and one should remain informed on how to better protect themselves. Vaccinations are imperative to ensure the safety of our children, the immunocompromised as well as our geriatric patients. This is definitely a good article and it addresses what needs to be done in order to stay prepared for another pandemic. However, the article does not highlight the root of the issue which was the availability and means of providing this information to those who aren't properly educated with regards to the issue. While we do not know what the next flu season will hold, we still have to continue to stay prepared.

Hello,

The relevancy this article provides holds true to this day. In light of the recent events with the measles outbreak in NY, it's imperative that this information be available to those who don't receive it as part of their education. By vaccinating ourselves we are protecting the children, the immunocompromised as well as our geriatric populations. The H1N1 pandemic serves to show us what happens when we're properly educated or prepared. This is a good article but it fails to comment on the social and educational factors that need to be addressed in order to inform the public of the pandemic. While we do not know what the next flu season will hold, we still have to continue to stay prepared.

The flu can be easily mistaken for its similar sister, the "common cold", but it is not a laughing matter. Flu deaths are more common than most the population can imagine and can creep on you suddenly. This blog post reminds us to stay ready and not to underestimate the flu. We should always take preventative action and prepare for flu season, that includes getting the flu shot, washing your hands and staying safe in dangerous conditions. I'm happy that blogs like this exist and the information is easy for people to read who are in a rush or want a quick update on the matter.

I had Influenza A in April 2019 and spent 9 days in hospital. I've not been able to work since due to severe respiratory issues and have just been diagnosed with Fibromyalgia onset from Influenza A. This flu has completely changed my life, lost my business, struggle with breathing, memory loss, no concentration, can't take in new info, chronic fatigue, aches and pains etc. It really is so scary and I would not wish this on anyone.

And yes I get my flu jab every year due to my previous mild asthma.

So disappointing to know that the CDC has an article named "10 Years Later: The Lasting Impacts of the H1N1 Flu Pandemic Response" but the CDC does not list any lasting impacts. What is the point of this article?

6 comments on "10 Years Later: The Lasting Impacts of the H1N1 Flu Pandemic Response"
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I had H1N1 in 2009 and ended up with pneumonia too. I've never been the same since. I used to be very active and full of energy but since 2009 I have been exhausted 24/7 and can fall asleep at the drop of a hat. It's awful and I just manage to work, cook, eat and sleep in the week and then spend most of my weekend sleeping on and off. I'm so lucky to have been blessed with a wonderful partner who understands and who does most of the household chores, without him I don't know what I'd do. I feel constantly guilty for having to put on him though. I'm uncomfortable with the situation and so frustrated with not being myself any more. Never underestimate what a virus can do to you. I'll be having the Covid 19 vaccine as soon as it becomes available for my age group, hopefully in a few weeks 🙏

I'm a 36 year old mother of 4. Back in 2010 I was working at a walk in Clinic in which I contracted swine flu. I was severely sick. Here it is 11 years later I've been experiencing more constant "fire burning" upper right back pain, mostly under my shoulder blade radiating to my right flank. XR of my T Spine showed arthritis, herniated discs, spondylosis, scoliosis, linear scarring on left lower base of my lung and mass above my aortic arch (I have had heart surgery for VSD repair at age 7) My MD ordered a CT of the Chest , it's not scheduled for 2 weeks. I have had SOB, occasional dry cough for a few years, he contributes to my asthma. But in the last 4 months I've had chronic fatigue. Sleep study was normal. I've been a wreck since XR results. Googling everything. Possibly pulmonary fibrosis or lung cancer. I don't think my MD (whom I work for) wants me to worry, so he says "don't stress it's probably nothing ." But I'm stressing, anxiety is through the roof. Anyone with some opinions would be greatly appreciated. 2 weeks seems like an eternity.

I am not sure if the virus or the vaccine is the cause of my health issues but right after both my immune system started overreacting. I developed a few inflammatory diseases. It has been 10 years since the last time I had a fever. I am not

sure if I have an amazing immune system or my immune system has collapsed.

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