

# What You Should Know About the H1N1 Flu Vaccine

**A Column by Jason Eberhart-Phillips, MD**  
**Kansas State Health Officer and Director of Health**  
**Kansas Department of Health and Environment**

This month marks the start of the largest vaccine deployment in history. As the first shipments of the H1N1 flu vaccine are arriving in Kansas, it's worth noting that a new chapter in humanity's long struggle with influenza viruses has begun.

For the first time ever, people have come together to stop a flu pandemic dead in its tracks by taking away the one thing the virus needs to survive: susceptible human hosts.

As the vaccine induces ever-wider immunity in the population, it promises to bend down the curve of the current epidemic, leaving the H1N1 virus with no place to go.

With all the attention the vaccine is getting, many Kansans are asking good questions about it. Is the vaccine really necessary? Will it work to protect me or my children against illness? How do I know it is safe?

A majority of Kansans have indicated that they will likely obtain the vaccine. For now they need to be patient as we await larger supplies of the vaccine in coming weeks, and as we distribute available doses initially to target groups who are at especially high risk of complications from H1N1 flu infections.

Meanwhile, a vocal minority has already begun an active campaign against the vaccine. Many others remain undecided about it.

It's easy to get confused, so now is a good time to review what we know about the vaccine and what we can expect about its safety and effectiveness:

- 1. The vaccine is needed.** While the H1N1 virus has not been as lethal as the virus that caused the dreaded 1918 pandemic, for a fraction of cases it causes a very serious disease, even death. As of the end of last week we know of at least 146 reported hospitalizations related to the H1N1 flu, and believe that the actual number is really much higher. We also know of six H1N1-related deaths in Kansas. It is extraordinary to see so much influenza as early as mid-October, and the impact of this flu virus on children and young adults is unprecedented in modern times. Without the protection of the vaccine, the potential for significant absenteeism in coming weeks is high, causing disruption to schools, businesses and normal community activities throughout the state.
- 2. The vaccine is effective.** Clinical trials conducted on volunteers during the summer months yielded a pleasant surprise about the H1N1 vaccine: It produces a robust immune response that should prevent disease in most people after a single dose. Children under 10 need two doses, given at least three weeks apart, but we can expect nearly everyone else to be protected against H1N1 flu within a couple weeks of receiving a single dose of the vaccine.
- 3. The vaccine is safe.** The H1N1 vaccine really isn't a "new" vaccine at all. It has been manufactured using the same processes used for making seasonal flu vaccines for years.

Hundreds of millions of people have received these vaccines with very few serious adverse effects. We expect the H1N1 vaccine to have a similar safety profile, with only mild, localized reactions such as soreness or swelling at the injection site, as was seen in the clinical trials.

- 4. Vaccine safety will be monitored carefully.** Just as we do with all vaccines, information on adverse events following H1N1 vaccination throughout the United States will be analyzed thoroughly to ascertain if such events are coincidental or possibly related to the vaccine. With so many people being immunized, it is almost certain that a few vaccine recipients will suffer unfortunate outcomes that are probably not related to the vaccine. For example, every day in Kansas there are on average 27 heart attacks, 20 strokes, five first-time seizures, and 22 pregnancies that end in miscarriages. It is inevitable that some of these unwanted events will occur in someone recently immunized with the H1N1 vaccine. Judgments about whether a certain outcome is actually related to the vaccine will require a formal comparison between the observed rate in vaccinated people versus the expected rate in the general population.

I cannot say that the H1N1 vaccine will prevent the flu in everyone who gets it, nor can I say that getting the vaccine entails absolutely no risk. There are no risk-free options in life.

What I can say is that the odds of avoiding a potentially serious disease will be much better this flu season for those who are vaccinated against H1N1 influenza compared to those who are not. I can also say that the chances of serious adverse outcomes after getting infected with the flu itself are immensely greater than any theoretical risk of harm associated the vaccine.

For me and my family, the choice is clear. I'll take my chances with the H1N1 vaccine over my chances with this year's flu anytime. I hope that you and your family do the same.

###

*As the state's environmental protection and public health agency, KDHE promotes responsible choices to protect the health and environment for all Kansans.*

*Through education, direct services and the assessment of data and trends, coupled with policy development and enforcement, KDHE will improve health and quality of life. We prevent illness, injuries and foster a safe and sustainable environment for the people of Kansas.*

**Kristi Pankratz**  
**Public Information Officer**  
**Kansas Department of Health and Environment**  
**785-368-8053**