

1-8-09 New Year Begins with More Misinformation

Where did we get the term, “mis-information”, anyway? Are we trying to be nice and avoid words such as, “lies”, “inept”, “falsehood”, “misleading”? I just wish the television news people would get it right. They are so influential. They have a responsibility to pass along an accurate account. Responding to the H1N1 pandemic has been challenging enough without their misinformation, to put it nicely. Here’s what happened:

The H1N1 pandemic posed unforeseen challenges right from the start. Ordinarily, we have the luxury of watching these influenzas develop in the southern hemisphere. This one took us by surprise by starting in our own hemisphere and we’ve been scrambling ever since.

As time went on, people became more comfortable and accepting of the idea of vaccinating against the H1N1. Time is the great healer, isn’t it? Unless you don’t have it! We all became more eager to receive the vaccine when we realized its scarcity. High degree of interest combined with low availability of vaccine created the next challenge: The necessity of prioritizing risk groups. Kind of ugly business, that. By keeping the risk groups based on science, though, we had reasons why children would be vaccinated before adults and why young adults would be vaccinated before older adults, until there were sufficient doses to vaccinate everyone.

Now, a week into January of 2010, it’s only been two and half months since our first H1N1 clinics in mid-October. Children have had several opportunities to be vaccinated, adults with health conditions were next to be served and then the clinics were opened to all, as the vaccine was plentiful enough to do so. But that is not the only reason that some health departments dropped the risk criteria. We did so because we had more vaccine and because the attendance was low. So, why let it go to waste, when there were people who wanted it?

The final challenge is two-fold. First, I need to convince people that influenzas ebb and flow in waves. A portion of society has been vaccinated and a portion has developed immunity in response to the actual H1N1 flu. There is still a large portion of society without either of these defense mechanisms and many of them believe they don’t need the vaccine because they have “complete immunity from their childhood.” Where did people over sixty years of age get this idea? They heard it on the news! And, therefore, it must be right! That popular belief is public health’s next hurdle.

No one is or can promise immunity from childhood exposure to H1N1. Anyone who does is not paying attention to all the words in the scientific reports you can read for yourself at CDC’s website. Words like, “some” and “may have”.

Our immune system is an amazing thing. It can respond in a variety of ways to enemy invasions. Sometimes it responds in a generalized way. It casts its net broadly to catch anything it can. For instance, viruses are complex macromolecules with a variety of proteins and other components eliciting a variety of responses and sometimes generalized responses to components similar to enemies encountered previously. That's called cross-reactivity and it is what people over sixty might have from a similar influenza from their childhood. Remember the words, "might" and "generalized" and "similar". Scientists have determined that the response to H1N1 is not cross-reactive to the seasonal flu. That's why we need both vaccinations.

Another type of immune response is very specific and it's called cell-mediated. You can think of this as bringing out the big guns. In a cell-mediated response, the body sees a very specific enemy, called the antigen, and produces a very specific defense in the form of T cells and macrophages. Those T cells and macrophages have one purpose only: to kill and destroy the enemy. Cell mediated response to H1N1 has not been sufficiently studied yet to tell us if that is happening at all.

Read for yourself the accurate information on your H1N1 immunity status from CDC:

"The Centers for Disease Control and Prevention (Atlanta, GA, USA) reported that among persons >60 years old, 33% have preexisting, cross-reactive neutralizing antibodies against the new virus, but seasonal influenza vaccines do not elicit cross-reactive neutralizing antibodies against pandemic (H1N1) 2009 virus in either younger or older populations (1). However, current data cannot be used to evaluate the full immune capacities of human populations because cell-mediated immunity (CMI) has not been characterized in humans infected with pandemic (H1N1) 2009 virus."

Xing Z, Cardona CJ. Preexisting immunity to pandemic (H1N1) 2009 . Emerging Infectious Disease. 2009 Nov. Available from <http://www.cdc.gov/EID/content/15/11/1847.htm> DOI: 10.3201/eid1511.090685

The vaccine has proven safe and effective. What's really cool about them is the way they work. The enemy is disarmed by a process of denaturing. This process takes away the ammunition but keeps the black hat. Your body sees the bad guy and produces the same response, at no risk to the vaccine recipient because the virus was dead. (Pssst..Don't tell. It might hurt your immune system's pride!)

Only one third of you folks over sixty may have some generalized immunity to the H1N1 from your childhood. You have no way of knowing if you are immune or not. Please don't risk your chances with any of the influenzas. Secondary infections, such as pneumonia, are especially deadly with this flu and for your age group.

Get the facts. Get the flu shot.

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