Preparedness Appears to Mitigate 2012-13 Influenza Season

At this writing, the 2012-13 flu season is winding down. It started off with a bang, and perhaps due to good preparedness policy, seems to be ending quietly. More on that later, but first a little context as to why we pay so much attention during flu session.

Do you remember the influenza pandemic scare during the 2008-2009 season? The World Health Organization had issued its highest alert level, which meant the flu had spread to most parts of the world. Three years earlier the Bush Administration announced a National Strategy for Pandemic Influenza Preparedness and Response. As part of that initiative, the federal National EMS Office pulled together stakeholders and experts in 911 and EMS to develop specific strategies and guidelines for their professions, which were announced in May 2007.

In developing guidelines, public health experts went back to their history books to learn lessons from the Great Influenza Pandemic of 1918, which killed more than 60 million people around the globe. As they reviewed ways that swine and avian influenza were evolving over the past 50 years, they saw it was inevitable that another dangerous pandemic influenza would hit, thus the emphasis on preparation. The 2009 scare was just that, as it didn't develop into the deadly strain many feared. But more than anything, it showed just how unprepared many EMS systems were. And now, being ready for seasonal flu means being better able to deal with a real pandemic when it inevitably hits.

Surveillance and the FirstWatch Regional Influenza Network (RIN)

One of the many guiding principles handed down from pandemic planning efforts included the importance of surveillance—knowing when and where flu outbreaks were occurring to be able to take immediate action to mitigate the spread of disease (such as community vaccination programs and social distancing practices like staying home if you're sick.)

The problem is that reports from other sources confirming flu cases could take days or weeks—too late for a warning to have any significant impact. The National 911 and EMS Influenza Guidelines recommended using real-time data gathered in 911 calls and in EMS electronic patient care reports that could report cases showing flu-like symptoms. That's where FirstWatch comes in. We knew that 911 calls with complaints of flu-like symptoms could be an early indicator.

Out of that call for preparation came the Regional Influenza Network (RIN), a free service for FirstWatch customers. RIN helps clients benefit from triggers to specific flu indicators and aggregates the data on a regional or state level.

FirstWatch Solutions, Inc 322 Encinitas Blvd., Suite 100, Encinitas, CA 92024 p 760.943.9123 f 760.942.8329
www.firstwatch.net

The 2012-13 Season Arrived Early

This continued fear of a deadly pandemic is important to recall when early in the fall of 2012 flu experts at the CDC warned of a very severe season. The number of flu cases had started an early rise and the dominant strain circulating, an influenza A H3, was a type known for its virulence and complication rate. The CDC was concerned that if the number of cases seen in December and January continued to climb toward a more typical peak in February, the impact would be huge. With the known severity of A H3 influenza, the likelihood of a large number of hospitalizations, complications and deaths was feared.

While in many areas there is still widespread flu and relatively high mortality rates in the elderly and young, the peak this season apparently occurred in the last two weeks of December and the first two weeks of January. (A December peak is unusual: typically, seasonal flu peaks in February, with January and March sharing equal ranking for the number of cases.)

That fear was not realized; while this flu season was more severe than last year, it was not nearly as bad as 2003-2004. There are several reasons for this and the CDC and its partners in public health, as well as the public, should be commended.

First, the early warning of a potentially bad flu season engaged the media and created awareness with healthcare providers and the general public. A significant number of health care providers – especially physicians, nurses and pharmacists – were immunized to protect themselves and their patients. There was an adequate and early supply of flu vaccine and vaccinations were given at many sites, including hospitals, nursing homes, pharmacies, doctors' offices, clinics, universities and worksites.

Those at greater risk for complications from flu were targeted for vaccination. The flu vaccine itself was a decent match for the circulating flu strains, resulting in a significant portion of the U.S population having immunity. And with so many protected, there was less chance for the flu to spread.

While flu season is winding down, we still need to be on guard as cases often continue into the spring. The recommendation from the CDC is for vaccination to continue as long as there is vaccine available and there are flu cases. Unless they need medical care, those who are sick with flu-like symptoms should stay home and away from others until their temperature is normal for 24 hours (without fever-reducing medications).

Everyone should wash their hands often with soap and water; use hand sanitizer in between hand washings; avoid touching their eyes, nose and mouth; and disinfect commonly handled surfaces and objects at home, school, work, and in public areas (e.g., doorknobs, telephones, elevator buttons, pens, and electronic styluses for signing credit or debit transactions).

Those who sneeze or cough should do so into tissues, which should be immediately discarded or sneeze or cough into their upper arms/sleeves, instead of onto their hands which may then touch other people or areas. Those who have flu symptoms should check with their health care providers, particularly if at high risk for complications, for access to antivirals. To be effective, they must be taken early.

How the Regional Influenza Network Provides Early Warning

Part of the value of FirstWatch is its ability to aggregate data across jurisdictions, at a local, state or national level. In 2007, as the federal government encouraged 911 and EMS agencies to prepare for a potential avian flu epidemic, FirstWatch developed a free service called the Regional Influenza Network (RIN). RIN allows real-time monitoring of influenza-like signs and symptoms (in 911 calls or electronic patient care reports) for any current client that is interested in participating. More importantly, it enables agencies to share data (in a de-identified manner) on a regional scale to see broader trends—and to potentially have an earlier warning of influenza activity than they would have had otherwise.

This service assigns FirstWatch triggers and analyzes data for signs and symptoms of flu or influenza-like illness from dispatch or other available data. For clients with Medical Priority's ProQA® or card sets, these triggers are standard, but for those using a different EMD or dispatch system, a review of each dataset is done to determine those signs and symptoms that most closely match. If a particular strain of flu emerges that has a non-typical sign or symptom, changes can be made by FirstWatch as needed.

For instance, the 2009 H1N1v (swine flu pandemic) added nausea, vomiting, and diarrhea to the more typical flu symptoms of fever, sore throat, chills, fatigue, muscle aches, coughing, chest pain and difficulty breathing. The additional symptoms were added that year and remain in place since this flu strain is still found. Functioning as other triggers do, clients have early access to information in their agency of regionally increasing (against historical data) "hits" in the form of alerts. Clients can then proactively consider what early measures to take, such as protecting responders, increasing manpower, partnering with public health officials and hospitals regarding changes to transportation destinations, and other measures.

In some systems, public health officials look at an individual agency's data or a combined region's data (with the agency's knowledge and approval). The RIN is currently set up using the previously defined CDC Census Jurisdictions and Regions. We are actively converting the RIN to use the Department of Health and Human Services Regions 1-10.

If your agency is interested in finding out more about RIN, please contact your FirstWatch support representative at support@firstwatch.net for details.

Contributing to this report was John Selters, FirstWatch director of operations; Pam Farber, RN, EMT-P, FirstWatch clinical advisor ; and Keith Griffiths, editor in chief of Best Practices in Emergency Services.

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