

H1N1 Influenza in Santa Barbara County

Introduction

In April of 2009, the world became aware of a new strain of flu in Mexico, described as “Swine Flu”. A new or novel flu is one for which humans have little or no natural immunity. The initial flu identified in Mexico quickly spread to other countries and regions of the world. In a matter of months, Santa Barbara County residents learned that this flu had been identified as pandemic H1N1 influenza. A pandemic is a worldwide outbreak of the same influenza type in multiple countries. It has the potential of infect many people. This report summarizes our local experiences with the pandemic and what we can learn for future community health crisis.

Identifying H1N1 Influenza Cases in Santa Barbara County

Laboratory testing for the pandemic H1N1 influenza began in April 2009. The Santa Barbara Public Health Laboratory tested specimens from local hospitals and medical providers. All influenza specimens were tested for the two types of flu: Type A and Type B. H1N1 flu is a sub-type under Type A. **If the Public Health Laboratory identified influenza type A without a match to a known sub-type, it was presumed to be H1N1.** The specimen was then sent to the State Public Health Laboratory for confirmatory testing. It soon became apparent that almost all Type A specimens that did not have a known sub-type and presumed H1N1 flu cases, were confirmed by the state lab as H1N1 flu. Thus, confirmatory testing was not conducted for future specimens based on state direction.

Date (as of 3/17/10)	Total Tested	Total Positive for Flu A	Percent Positive for Flu A	Total Flu A – H1N1	Percent Flu A – H1N1
Total	984	113	11.48	90	79.65

Between April 2009 and April 2010, 984 specimens were tested for residents of Santa Barbara County. A total of 113 of those specimens, or 11.48% were positive for Flu A. Of that number, 90 specimens or 79.65% were found to be H1N1 influenza.

Laboratory testing was used to confirm H1N1 influenza as a means of monitoring the trends and patterns of the disease. Clinical intervention, treatment, was not based on the results of the tests. Thus, decreasing the number of specimens for laboratory testing did not negatively impact patient care or services.

Preventing the Spread of H1N1 Flu Through Vaccination

The single best way to prevent the flu is getting a flu vaccination. Delivery of the H1N1 flu vaccine was delayed on a nationwide this year due to challenges in the development of the

new vaccine. When it was received by the Public Health Department and local medical providers, the vaccine was provided to residents. The Public Health Department prioritized administration of the H1N1 vaccine to groups of individuals at highest risk for severe illness from the pandemic H1N1 flu. The priority groups focused on pregnant women, children, and medical personnel with direct patient contact. As more vaccine was received, the vaccine was provided to expanded groups of residents until it was available to all county residents over 6 months of age.

The Public Health Department established multiple venues and methods for distributing and administering vaccine. This involved regular communication with medical providers throughout the county to assure the vaccine was available where needed for providers to administer to their patients. This required close monitoring of the shipments of vaccine that were sent, received and administered. The Public Health Department also provided vaccine to patients at Public Health Center Clinics. In addition, there were numerous community clinics in all geographical regions of the county. As the supply of vaccine increased dramatically, the Public Health Department made contact with large employers and community organizations that serve large numbers of residents offering to bring clinics to local sites. This multiple pronged strategy resulted in numerous options for residents to obtain vaccinations and prevent the spread of pandemic H1N1 flu.

Vaccination Method	Number of Vaccinations Given	Number Given in North County	Number Given in South County
PHD clinics for Patients	5445	3170	2275
Community Clinics	21,262	9107	16,987
Outreach Special Clinics	186	45	541
Total Vaccinations	27,342	12,322	19,803

The Public Health Department has given more than 26,000 H1N1 flu vaccinations between November 2009 and March of 2010. Each of these vaccinations was provided at no cost to the recipients. This number does not include vaccinations provided through private medical providers and local organizations such as pharmacies.

Public Communication

A key activity associated with the H1N1 flu was communicating with local residents from the initial discovery of the “swine flu” throughout the pandemic. Initial messages were focused on protecting yourself and preventing the spread of the H1N1 flu. Later messages

emphasized vaccinations as the best way to prevent illness. Regular communication also provided information on the impact of H1N1 flu in our county including hospitalizations and deaths due to H1N1 flu.

To effectively reach a broad and diverse population, a number of communication strategies were implemented. Messages were prepared in English and Spanish in all communication strategies. Our local media was responsive in carrying H1N1 flu related pieces and seeking local perspectives on this worldwide story.

Press releases	Up to 2 times daily, generally weekly
Radio ads	English and Spanish radio October – December and February and March
Brochures	General brochure in English and Spanish, over 100,000 distributed
Dedicated website	Developed and revised almost daily, over 18,000 hits by mid-December
H1N1 Flu Phone Line	For the public and for healthcare providers in English and Spanish, more than__ calls
Business brochure	Specific to business preparation, on-line
Posters	Prevention messages distributed in PHD offices/clinics (English and Spanish)
Media interviews/shows	Radio, TV, public access TV and H1N1 clinics up to ½ hour
Bus posters	Inside public transportation buses in all regions of the county, for a minimum of 3 months (English and Spanish)
Movie Theater ads	On vaccination message February and March

Presentations	To city councils, community groups, HR managers, and other stakeholders
Liaison with schools	Regular communication, response to questions, updated information and monitoring of school absenteeism
Press conference	Use twice at the beginning of the incident and at the onset of vaccinations
Social Networking	Established Twitter account for the PHD and sent messages regularly

Partnering with Community Healthcare Providers

The pandemic H1N1 flu required regular communication and collaboration with community healthcare and service providers. Medical providers were encouraged to register for free vaccine through the State CalPanFlu website. The Public Health Department monitored the delivery of vaccine and assured that physicians who see patients in high risk groups had adequate supplies. Phone and email communication and medical office phone surveys were conducted to assure timely and accurate information about the delivery and supply of vaccine.

There was also regular communication with hospitals and large healthcare providers in the County. A meeting was held to in September discuss our local joint approach to the pandemic should the hospitals and large providers become inundated with ill or worried well. Weekly phone meetings were conducted over the next few months to monitor activities and concerns. Emergency departments at our local hospitals and select outpatient clinics reported the percent of visits due to influenza type illness. This monitoring continues today.

During the preparation period of time, the Public Health Department developed a **triage tool. This tool could be used by the Public Health Department and other medical provides to obtain key information from callers with influenza-type illness to determine priorities for intervention and treatment. This tool was used by multiple healthcare providers.**

Another component of preparation and planning with healthcare providers related to the use of personal protective equipment (PPE). Medical professionals who worked closely with infected patients received guidance on the use of gloves and masks to assure protection. This information and supplies to assure adequate availability of supplies was an ongoing activity.

Anti-Viral Medications

Another key aspect of response relates to **anti-viral medications**. For most individuals who became ill with pandemic H1N1 influenza, it was a mild illness and medication was not required. **Medication does not “cure” the disease, but it can lessen the severity of symptoms and the duration of the disease.** For individuals at risk of severe illness this is important. It is also important that anti-viral medications not be used excessively, both to assure supplies for those truly in need and to prevent against a resistance of the virus.

The Public Health Department obtained supplies of anti-viral medications, provided guidance to local healthcare providers about the prescription and use of anti-virals, and worked with local pharmacies to monitor supplies. Fortunately, anti-viral medication was not required for large segments of the population.

Staffing and Resources

The scope of activities related to pandemic H1N1 flu grew rapidly. Communication between all of the key parties locally was in addition to regular California Public Health Department and Center for Disease Control communication. Information and guidance was rapidly changing. It became apparent that in addition to regular Public Health Department staff, additional temporary staff would be needed. The department eventually hired more than 100 extra help staff. This significantly improved our local ability to be timely and comprehensive in our response.

The temporary staff augmented permanent staff who worked in leadership positions. A Department Operations Center was implemented in full form or in a partial manner, for reporting and implementation of tasks over a period of months.

Hospitalizations and Deaths in Santa Barbara County

The first hospitalization in Santa Barbara County due to pandemic H1N1 flu occurred in June of 2009. The graph below reflects the number of people who have been hospitalized and/or died in Santa Barbara County due to pandemic H1N1 flu during each week of the past year. The numbers at the bottom of the chart indicate the weeks of the year. There have been a total of 65 hospitalizations and nine deaths in Santa Barbara County as of March 17, 2010. Each of the individuals who died had an underlying medical condition.

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When we look closely at those who have been hospitalized with pandemic H1N1 flu, it becomes clear that those between the ages of five and twenty-four have been hit the hardest. 42.4% of hospitalizations in Santa Barbara County have been to individuals in this age range. This is similar to what is seen nationally.

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Lessons Learned

As the activities related to pandemic H1N1 flu wound down, the Public Health Department

took steps to ascertain what worked well and what we could do to improve our response to future incidents that might require a similar level of intervention and response. All staff (permanent and temporary) who participated in one of the PHD or community vaccination clinics was asked to complete an on-line survey. A number of groups and After-Action meetings were held in three regions of the county where feedback was solicited. A separate survey was designed for healthcare partners followed by a conference phone call.

The results of the various surveys and meetings were that a significant percentage of the respondents were positive about the response to the H1N1 influenza pandemic in Santa Barbara County. There was a high degree of satisfaction with the preparation of participating staff, implementation of key activities, and communication with the public and key stakeholders.