

NEVADA COUNTY COMMUNITY HEALTH PREPAREDNESS

SUMMARY

The Nevada County Grand Jury read many well-published newspaper articles regarding infectious disease outbreaks throughout the country and decided to inquire as to the preparedness of Nevada County to deal with such an outbreak.

The Nevada County Grand Jury conducted interviews and discussions with several Nevada County organizations in the public health and safety sectors, whose responsibilities include prevention and management of infectious diseases. While other public health and safety concerns such as fires, earthquakes, and other disasters would also be the responsibility of these organizations, the Nevada County Grand Jury chose to focus on highly infectious diseases.

The Nevada County Grand Jury found these organizations have managers who are knowledgeable and dedicated to providing a high-level of response for any infectious disease. Additionally, these organizations have numerous well-developed emergency plans that clearly identify roles and responsibilities for handling such crises.

The Nevada County Health and Human Services Agency noted childhood diseases are a serious concern. Their records show Nevada County has the lowest statewide percentage rates (75%) of childhood vaccinations. California statewide childhood vaccination rate is 90%. Their records reflect the lowest vaccination rates are at the local charter schools (20%).

GLOSSARY

Grand Jury - Nevada County Grand Jury

SNMH - Sierra Nevada Memorial Hospital

PH - Nevada County Department of Public Health

OES - Nevada County Office of Emergency Services

NCSOS - Nevada County Superintendent of Schools, School Health Services

HHS - Nevada County Health and Human Services Agency

TDAP/DPT - Combined singular vaccination for Tetanus, Diphtheria, & Pertussis
(Whooping Cough)

MMR - Combined singular vaccination for Measles, Mumps & Rubella

HEP B - Hepatitis B

BACKGROUND

Nevada County is vested by the California Legislature with the powers necessary to provide for the health and welfare of the people within its borders. Nevada County has contracts with public health providers for emergency health services.

Recent events publicized in national media concerning Ebola and Measles outbreaks prompted the Nevada County Grand Jury (Grand Jury) to determine if Nevada County is prepared for a similar infectious disease outbreak.

APPROACH

Interviews were conducted with representatives of Sierra Nevada Memorial Hospital (SNMH), Nevada County Department of Public Health (PH), Nevada County Office of Emergency Services (OES), Nevada County Superintendent of Schools (NCSOS) and Nevada County Health & Human Services Agency (HHS).

As part of these interviews, the Grand Jury requested and received organizational charts and other useful documentation in determining how these organizations would interact in times of crisis. Additionally, the Emergency Management and Safety team of SNMH provided an extensive tour of their facilities with emphasis on their preparedness and ability to respond to an infectious disease outbreak in Nevada County.

During each interview the Grand Jury focused on questions regarding:

- preparedness and resource availability
- funding
- prevention
- training
- public education
- crisis management and communications
- ongoing concerns

DISCUSSION

Preparedness and Resource Availability

SNMH keeps adequate supplies on hand, including, but not limited to flu vaccines. In the event of an infectious disease outbreak, SNMH has the ability to reach out to local pharmacies and other medical facilities for additional resources.

SNMH receives updates and information from the Centers for Disease Control and other

national medical professionals via telephone, conference calls, emails, bulletins, and by attending healthcare conferences.

PH has county-wide responsibility to prepare and respond to emergencies concerning public health preparedness, the general health of the public, and the health care system.

OES works with other allied agencies including four law enforcement agencies, twelve fire districts, the Governor's Office of Emergency Services, CAL FIRE, Nevada County Department of Environmental Health, and PH.

In the event of an infectious disease outbreak, PH would notify OES. Within minutes the OES Emergency Command Center, located at the Eric Rood Administrative Center, could be activated.

Infectious disease occurrences are mapped using Nevada County Geographic Information System software to track outbreaks of infectious diseases in order to facilitate a timely response.

PH conducts ongoing monitoring of schools, hospitals, long-term care facilities and other agencies that provide services to the public. PH also monitors detention facilities for communicable disease outbreaks. Common diseases at the detention facilities are tuberculosis, sexually transmitted diseases, and gastro-intestinal infections.

PH has an epidemiologist who is in communication with regional, state and federal health organizations tracking infectious disease trends and obtaining updates for treatment protocols.

Funding

In addition to local funding, PH identified three major funding grants:

- Public Health Emergency Preparedness Grant
- Health Care Preparedness Grant
- Pandemic Grant

There are three medical facilities which receive at-cost reimbursements from the Federal Quality Health Corporation:

- SNMH
- Tahoe Forest Hospital
- Western Sierra Medical Clinic

Prevention

The PH Epidemiologist monitors school attendance records and hospital emergency room traffic to identify any possible trends involving infectious diseases.

NCSOS has a nurse who partners with HHS for developing health awareness programs for the schools. This nurse is responsible to cover all ten school districts. The NCSOS nurse also has the legal authority to order quarantines by closing school(s), which removes the threat from the classroom. An infected student may be quarantined in school to control exposure. However, there is no authority to order people to remain in their homes.

According to those interviewed, Tetanus, Diphtheria, Pertussis (Whooping Cough) (TDAP/DPT), Measles/Mumps/Rubella (MMR) and Hepatitis B (HEP B) are considered to be the top three recommended vaccinations. Because vaccination supplies have an expiration date and are expensive to maintain, it is not cost effective for a family physician to keep a supply of all vaccinations.

Seniors are at low risk for MMR based upon a "Pre-1957" theory where children born prior to that year were exposed to MMR and are presumed to have a natural immunity. This does not discount the need for booster vaccinations. A low-cost blood test would reveal if a booster vaccination would be advised. This would serve to prevent these diseases for senior citizens and to prevent spreading these diseases to children who are too young to receive those vaccinations.

PH sponsors vaccination clinics in 27 locations in Nevada County where residents can get the highly recommended vaccinations of TDAP/DPT, MMR, HEP B, and corresponding booster vaccinations. If one cannot remember when the last vaccination occurred, or, if ten years have passed, it is recommended to get checked and follow up with the booster vaccinations.

As the first line of defense against infections, healthy practices include washing hands frequently and immediately discarding used tissues.

Training

HHS provides Ebola protocol training for local emergency providers, including all steps necessary to contain the patient, use of protective clothing (donning and doffing), and equipment usage.

SNMH partners with PH and OES to conduct simulated emergency training sessions.

Public Education

HHS provides education through public meeting presentations and interviews of providers and recipients of services to enhance the efficiency of the protocols.

"Healthy Tuesday" is a NCSOS program used to communicate to parents the need for vaccinations focusing on children from kindergarten through sixth grade.

Crisis Management and Communications

There are protocols in place to notify the public in the event of an infectious disease outbreak. Public outreach is through the local media.

Infectious disease control involves NCSOS and PH. The NCSOS office is authorized to order an entire school closure, or issue isolation orders, depending on the severity of the situation. However, PH has the authority to override the decision of the NCSOS.

Further information on the emergency plans, chain of command and other operations can be obtained from the OES website, accessed through www.mynevadacounty.com

The California Department of Public Health assists and provides up-to-date information and ideas for responses and "best-practices" for deploying resources.

Ongoing Concerns

Multiple agencies listed their top three concerns as influenza, whooping cough, and measles. Concerns are high for a potential full-region or state-wide outbreak of these diseases. California parents currently have the ability to "opt out" from vaccinating their children. HHS noted childhood diseases are a serious concern as Nevada County has the lowest statewide percentage rate (75%) of childhood vaccinations. The California state-wide childhood vaccination rate is 90%. Some local charter schools only have a 20% vaccination rate.

Measles has a 21-day incubation period. The carrier is infectious up to five days prior to exhibiting symptoms. The measles virus is able to survive for approximately 48 hours on a dry surface. Touching the face, eyes, or nose after exposure to the virus can lead to infection.

FINDINGS

- F1** The Nevada County Grand Jury has concluded, based on the detailed plans for dealing with various types of health emergencies, SNMH, PH, HHS and NCSOS have on-going programs for prevention of control of infectious diseases, training activities for staff members, and public education, public health agencies within Nevada County appear to be prepared for an infectious diseases outbreak.

- F2** The low vaccination rates in Nevada County create the potential for infectious disease outbreaks.

RECOMMENDATIONS

- R1** The Nevada County Grand Jury encourages Nevada County agencies to continue informing the public as to the importance of vaccinations.
- R2** The Nevada County Grand Jury encourages Nevada County residents to understand the consequences of not having current vaccinations.

REQUEST FOR RESPONSES

None Required