BACKGROUND

Informational Hearing

Supporting Public Health in California: The Critical Role of the State and Local Departments in Disease Surveillance and Control

Tuesday, February 11, 2014
State Capitol, Room 4202
1:30 pm – 4:00 pm

Hearing Overview

There are many public health challenges facing California today and this hearing will highlight challenges posed by influenza (flu) and valley fever as a means to illustrate public health system performance. We will look at disease surveillance and control; in particular we will look at why there is such a critical need for these functions and identify opportunities for strengthening the State's public health infrastructure and improving the health of all Californians. While flu season is limited, our public health departments also focus on long-term efforts to improve Californians' health. We will explore this important work through a discussion of health disparities and the role of the new Office of Health Equity, concluding with a vision for public health in California moving forward.

Background

The World Health Organization defines public health as "all organized measures to prevent disease, promote health, and prolong life among the population as a whole." Public health differs from health care in that public health's primary emphasis is on preventing disease and disability and it focuses on the health of entire populations rather than on individuals. The public health system is complex and plays a critical role in protecting the health of our society.

Public health functions in California are decentralized, shared among several state agencies, as well as local health departments. While the State is responsible for most policy-making and setting regulatory standards, the day-to-day job of protecting the public is conducted by local health agencies.

California Department of Public Health: Overview

The mission of Department of Public Health (DPH) is to optimize the health and well-being of Californians, primarily through population-based programs, strategies, and initiatives. DPH works to achieve this mission through a variety of activities including, but not limited to:

- Promoting healthy lifestyles for individuals and families in their communities and workplaces;
- Preventing disease, disability, and premature death and reducing or eliminating health disparities; and,
- Protecting the public from unhealthy and unsafe environments.

The Department is broadly organized into Center for Chronic Disease Prevention and Health Promotion (CCDP&HP), Center for Environmental Health, Center for Family Health, Center for Health Care Quality, and Center for Infectious Diseases (CID). The Centers that are the primary focus of this hearing are CCDP&HP and CID

CCDP&HP is the Department's lead on climate change and on Health in All Policies. The State of California created the Health in All Policies Task Force in 2010. The Task Force was charged with identifying priority programs, policies, and strategies to improve the health of Californians while advancing the goals of improving air and water quality, protecting natural resources and agricultural lands, increasing the availability of affordable housing, improving infrastructure systems, promoting public health, planning sustainable communities, and meeting climate change goals.

CID protects Californians from the threat of preventable infectious disease and assists individuals suffering from infectious disease by securing prompt and appropriate access to health care, medications, and associated support services. CID activities are a particular focus of this hearing, specifically, the responsibility to help investigate and diagnose infectious diseases of public health significance, such as the flu.

Local Health Departments

There are 61 local health jurisdictions in California representing the 58 counties and three cities: Berkeley, Long Beach, and Pasadena.

Public health officers have broad far-reaching authority and responsibility under the law. For example, public health officers have the authority to order testing for individuals or communities, quarantine individuals or groups, and close beaches, restaurants, and other facilities for public safety. Public health officers receive reports from health providers and

laboratories concerning the incidence of more than 80 statutorily reportable diseases including HIV/AIDs, tuberculosis, and syphilis.

County health departments must submit monthly, quarterly, or annual public health and program reports to state agencies including DPH and the Emergency Medical Services Authority. County public health programs vary substantially in their administrative structures, scope, funding levels, staffing, and specific services and programs offered. Counties generally provide maternal and child health care, child health and disability prevention, tuberculosis control, and AIDS services. Most counties provide services related to sexually transmitted diseases, smoking/tobacco cessation, childhood lead poisoning, and immunizations.

Many counties have also developed their own innovative programs. For example, the City of Berkeley Public Health Department has modeled a Healthy Restaurant Program on the Bay Area Green Business Project, which works with businesses to implement sustainable practices and is working with restaurants to help them to increase healthy menu options. The Community Health Department in Fresno County developed the Women's Health Education and Outreach Program, which instituted Valley Women Care Clubs that hosted monthly workshops for a total of eight months in a chosen community. The workshops focused on reducing chronic disease risk through nutrition education, food tastings and food preparation demonstrations, physical activity sessions, and discussion on health perceptions and practices. Unfortunately due to a lack of funding this program was later cut.

Public Health Spending in California

At the State level, the Governor's fiscal year (FY) 2014-15 Budget provides $3 billion for the support of DPH programs and services, a decrease of 11.4% from the previous year. Of the amount approved, 23% ($683.3 million) is for state operations and 77% ($2.3 billion) is for local assistance.

There are two broad types of funding for public health in California: categorical (consisting largely of federal funding) and flexible (consisting of funding from public health realignment and local sources). Each local health department is unique in its mixture of these funds. A consistent challenge is that flexible funds must be prioritized to support mandated functions such as communicable disease control, which receives little to no categorical funding. Consequently, flexible funding available for other public health functions - such as chronic disease prevention - is very limited. When there are reductions to flexible funding, there is a disproportionate impact on mandated public health services. Recent reductions to realignment may further reduce funding for public health programs as they compete with other county services, including clinical services for indigent care, for fewer resources. Public-private partnerships have been developed to cover gaps in some jurisdictions, but these funds are only temporary and are usually initiative-specific.

The Patient Protection and Affordable Care Act (ACA) established the Prevention and Public Health Fund to provide expanded and sustained national investments in prevention and public health, improve health outcomes, and enhance health care quality. The Prevention Fund was established in federal fiscal year (FFY) 2010 at $500 million, with the intent for each year's allocation to increase until FFY 2015, when it was originally projected to reach at least $2 billion (in subsequent years the Prevention Fund was to be maintained at the 2015 level or greater).

However, in March 2012, Congress and the President reached a spending agreement, including a 10-month delay in scheduled cuts to Medicare physician payments. Five billion dollars of the funds used for the agreement came from the Prevention Fund. Under that agreement, according to a 2012 Congressional conference report, the Prevention Fund actually will not reach an annual allocation of $2 billion until 2022, at the earliest. On January 17, 2014, President Obama signed a $1.1 trillion omnibus spending bill that funds the federal government through the end of September 2014 which includes cuts in the ACA's Prevention Fund by an additional $1 billion. These cuts may impact the ACA's Community Transformation Grants, a program supporting community-level efforts to prevent and address chronic disease by promoting healthy lifestyles, especially among population groups experiencing the greatest burden of disease. To date, California agencies have received a total of $22.3 million for FFY 2011 and $35.2 million for FFY 2012.

Disease Surveillance, Control, and Prevention

Disease surveillance requires coordination among systems that identify and record health related outcomes. These systems provide data for descriptive epidemiology that are vital for a number of important public health functions, including:

- Monitoring and reporting on health status and health related behaviors within populations;
- Identifying emerging health problems;
- Identifying potential bioterrorism threats and alerting the population;
- Establishing public health priorities;
- Evaluating program effectiveness; and,
- Researching the relationship between risk factors and health outcomes to understand determinants of disease and potential interventions.

Within DPH, CID’s Division of Communicable Disease Control works to promptly identify, prevent, and control infectious diseases that pose a threat to public health, including emerging and re-emerging infectious diseases, vaccine-preventable agents, bacterial toxins, bioterrorism,

and pandemics such as the avian flu. CID's Infectious Diseases Branch conducts investigation, surveillance, prevention, and control of general communicable diseases of public health importance that are not covered by the specific programs of the CID Immunization Branch, Tuberculosis Control Branch, Sexually Transmitted Diseases Control Branch, and the Office of HIV/AIDS.

DPH reports that we are currently in an earlier peaking, severe flu season. As of January 31, 2014, the number of flu deaths in California has increased by 52, for a total of 147, including four pediatric deaths. DPH is investigating 44 other deaths not yet confirmed to be attributed to the flu. Disease surveillance occurs through DPH's Influenza Surveillance Project which is a collaborative effort between DPH, the federal Centers for Disease Control and Prevention (CDC), Kaiser Permanente, California local health jurisdictions, and participating providers and laboratories. Annual flu epidemics follow a winter seasonal pattern in the United States with activity usually peaking during late December to early February. DPH obtains and analyzes clinical, pharmacy, and laboratory data year-round to determine the patterns and impact of flu activity and how well circulating viral strains match those used in current flu vaccines.

Outpatient visits and hospitalizations at Kaiser Permanente facilities remain above expected levels for this time of year. However, most flu-positive specimens identified in California during the 2013-14 flu season are "flu A"; of the "flu A" viruses subtyped, most are "2009 A" (H1N1) viruses. The H1N1 strain appears to be the predominant strain so far this flu season and is one that is contained in the current flu vaccine.

Emerging Challenges & Initiatives

While there has been a great deal of recent focus on the flu, there are other infectious agents presenting health challenges.

valley fever

According to the CDC, the number of valley fever cases has increased significantly since 1998. valley fever is caused by a fungus found in soil known as coccidiomycosis. It is endemic to the southwestern United States, especially California's Central Valley and Arizona, as well as northern Mexico and parts of Central and South America.

Activities like construction and farming and natural events like earthquakes and dust storms can disrupt the soil and disperse fungal spores into the air. Individuals may become infected with valley fever by inhaling spores into their lungs, where the infection usually begins. Counties with the highest rates of valley fever (more than 20 cases per 100,000 population per year), are Fresno, Kern, Kings, Madera, Merced, San Luis Obispo, and Tulare, but individuals in other counties may also be exposed to fungal spores.

Since the first case of valley fever was described in Kern County in 1901, local health departments and health care providers have been studying the disease. In Kern County there are approximately 500 cases of valley fever each year, resulting in about five deaths. In an epidemic year there are approximately 1,500 cases and an average of 12 deaths. The Kern County Department of Public Health works to educate the community through public awareness campaigns and provides in-depth information and data for medical professionals and those suffering from the disease.

The National Aeronautics and Space Administration (or NASA), California State University, City of Bakersfield, and the Kern County Department of Public Health began a collaborative research project on valley fever in December 2011. The goals of the project are to:

- Identify where and how much valley fever is in the environment;
- Track the prevalence and geographic distribution of valley fever over time;
- Determine the influence that valley fever growth patterns have on humans and animals;
- Identify hot spots where control strategies can be studied; and,
- Reduce the risk of being infected with valley fever

valley fever is also a challenge in state prisons where a large number of inmates have risk factors for valley fever infection. As of September 23, 2013 Avenal State Prison has transferred 885 inmates at risk for valley fever to other facilities outside the Central Valley, and Pleasant Valley State Prison has transferred out 813 inmates.

A recent report by the DPH Infectious Diseases Branch summarizes the impact of valley fever in California over the past decade. From 2000 through 2011:

- There were 25,217 hospitalizations for valley fever in California;
- The average annual cost of hospitalizations in California for valley fever was $186 million (more than $2 billion over the study period); and,
- More than half of individuals hospitalized for valley fever required hospital stays longer than one week, with the average hospitalization costing more than $55,000.

Health Equity

According to the CDC, health equity is achieved when every person has the opportunity to "attain his or her full health potential" and no one is "disadvantaged from achieving this potential because of social position or other socially determined circumstances." Health inequities are

reflected in differences in length of life; quality of life; rates of disease, disability, and death; severity of disease; and, access to treatment.

Established in 2012, DPH's Office of Health Equity (OHE) aims to reduce health and mental health disparities in vulnerable communities. OHE's work is directed through their advisory committee and stakeholder meeting process. The OHE is required to consult with community-based organizations and local governmental agencies to ensure that community perspectives and input are included in policies, strategic plans, recommendations, and implementation activities.

The OHE objectives include:

- Achieving the highest level of health and mental health for all Californians, with special focus on those who have experienced socioeconomic disadvantage and historical injustice, including, but not limited to, vulnerable communities and culturally, linguistically, and geographically isolated communities;

- Working with the Health in All Policies Task Force to prevent injury and illness by improving social and environmental conditions that promote physical and mental health;

- Advising and assisting other state departments in their mission to increase access to, and the quality of, culturally and linguistically competent health and mental health care and services; and,

- Improving the health status of all populations and places, with the priority of eliminating health and mental health disparities and inequities.

The OHE-Advisory Committee is comprised of representatives from state agencies and departments, local health departments, community-based organizations, and service providers working to advance health and mental health equity for vulnerable communities.

According to the U.S. Department of Health and Human Services' report, "Healthy People 2020: An Opportunity to Address the Societal Determinants of Health in the United States," Americans do not all have equal opportunities to make healthy choices. A person's health and chances of becoming sick and dying early are greatly influenced by powerful social factors including education, income, nutrition, housing, and neighborhoods. The "Healthy People 2020" report indicates that if we, as a state, develop strategies and programs to help more Californians become physically active and adopt good nutrition practices, and create social and physical environments that promote good health for all, California could substantially improve health and reduce health care costs.

Conclusion

California's public health system requires both county and state staff to have the capacity to meet the challenges of protecting Californians from the threat of infectious disease, other illnesses and injuries and promoting healthy behaviors. The current severe flu season and the ongoing challenge of combatting valley fever illustrate the challenges and the importance of the cooperative work of state and local health departments in protecting the health of all Californians. These examples speak to the necessity of having surge capacity in our public health system to address disease outbreaks and epidemics.

Public health agencies, however, do not only focus on active diseases. They are also active in supporting long-term efforts to eliminate health disparities, in part through the promotion of physical activity and good nutrition, which can help improve health, reduce overall health care costs, and increase workforce productivity.

These are just three examples of the broad array of efforts DPH and local departments undertake to promote and protect the health of Californians. Funding and public attention to public health can wax or wane depending on the level and seriousness of current threats. This variation can hinder the ability of the public health system to detect and respond to threats. Reductions in prevention and surveillance activities, including health inspections, disease control, immunizations, and health education increase the risk and frequency of larger health threats, which then increases costs and disrupts communities. To protect the health and safety of the public, it is essential for the Legislature to ensure that our public health system receives the oversight, resources, and support necessary to ably perform its core functions and maintain the capacity to address new health threats to our communities, thus protecting the health of all Californians in both the short and long-term.