

BULLETIN

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SOMETHING TO SINK YOUR TEETH INTO

What chronic disease causes the most emergency department visits every year in SLO County? What do nine of ten adults in the US and 40 percent of pre-school children in SLO County already suffer from? What is the most common reason students miss school or visit the school nurse? The answer may surprise you: tooth decay.

Tooth decay and cavities are common names for the infectious disease dental caries. Because dental caries are so common, many people believe that it is expected, a normal part of growing up and growing older, or inevitable. Although oral disease can be episodic and is generally not life threatening, if left untreated it becomes worse and can often become chronic. Further, dental caries is only one of many oral conditions that wreak havoc in the mouth and throughout the body. Oral and general health are intertwined. Oral diseases, like caries, gingivitis (gum disease) or tooth abscesses, have been linked with ear/sinus infections, weakened immune systems, heart and lung diseases, and other serious health conditions. But the effects of oral disease run even deeper.

Poor oral health can have an impact throughout a lifetime. These diseases can make it difficult to eat, speak, get a job, and to learn due to pain or social stigma.

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Public Health
Prevent. Promote. Protect.



Accordingly, poor oral health can affect a person’s self-esteem, psychological and social well-being, income level, interpersonal relations, and quality of life, and ultimately strain family and community resources.

Dental caries is a public health problem for SLO County’s children and there are significant oral health disparities with low-income and minority children having the highest level of dental disease. Almost 60 percent of third grade children in the county do not have dental sealants, a well-accepted clinical intervention to prevent tooth decay in permanent molar teeth.

- The rate of local emergency department use is higher for dental conditions than for asthma and diabetes.
- More than 51 million school hours and 164 million work hours are lost each year due to dental disease.
- Fifty-two percent of new military recruits have dental problems needing urgent attention that would delay overseas deployment.

The good news is that oral diseases, such as cavities and gum infection, are largely preventable, and there are solutions. At the Public Health Department, our Oral Health Program provided approximately 1,650 children with preventative oral care last year. Broader efforts are initiated through the SLO County Children’s Oral Health Coalition, a local grass-roots collaboration formed in 2008 to solve children’s dental health issues, focusing on increased access to care, increased access to prevention, and

developing strategies to build ongoing infrastructure within the county to maintain and expand these efforts. The Coalition is currently updating its strategic plan which will focus on community action steps that involve individuals, families, and the community as a whole. To learn more about these oral health efforts, please contact the Public Health Department’s Oral Health Program at 805-781-5503, or the SLO County Children’s Oral Health Coalition through email: slooralhealth@gmail.com or online: www.slooralhealth.org.

Also, keep your ears and eyes open for our new public awareness campaign: *Spread the Word, Don’t Spread Cavities* coming later this summer.

Thank you for your attention,



HEALTHY COMMUNITIES: CREATING COMMUNITY HEALTH PLANS



A built environment that promotes healthy living—through access to healthy food, opportunities for physical activity, quality housing, transportation options, and safe schools—is an integral part of making our communities healthier.

Under the direction of the Health Promotion Division and the Healthy Communities Workgroup, two Cal Poly graduate students in City and Regional Planning authored Community Health Plans for Cayucos and Oceano. This year long research project and accompanying Healthy Community Plans will help the County begin looking at the impact of the built environment on the health of the its residents.

This project examined the relationship between the built environment and public health, and explored ways planning professionals are addressing health issues through infrastructure, land use, creative zoning, and planning strategies that promote health and active living. The planning documents, modeled after health elements currently being included in General Plans throughout California, provide Cayucos and Oceano an assessment of residents’ health, a description of the current built environment conditions that may be helping or hindering physical activity and access to nutritious food sources, and establishes goals, policies and action programs that will set a course of action toward healthier communities. The full background report, executive summary, and both of the Community Health Plans are available on the healslo website www.healslo.com.

SEEKING SENTINEL PROVIDERS FOR 2014-15 FLU SEASON

Seasonal influenza is a significant cause of illness and death in California each year. Influenza viruses are constantly mutating and routine surveillance improves the ability to monitor the circulation of influenza virus strains in the community. The California Sentinel Provider Influenza Surveillance Program is a partnership between clinicians, local health departments (LHDs), the California Department of Public Health (CDPH), and the federal Centers for Disease Control and Prevention (CDC) to conduct surveillance for influenza-like illness (ILI).

Sentinel providers assist CDPH and CDC with developing influenza prevention and control strategies and with selecting the virus strains to be included as components of the vaccine. Surveillance for influenza aids with the detection of new subtypes and emerging strains of influenza viruses, which is an important element of preparedness for pandemic influenza.

Physicians, physician assistants, and nurse practitioners from any specialty and any practice type are invited to enroll. More sentinel sites are needed in all areas of the state, especially in the large cities and major metropolitan areas. Providers who specialize in geriatrics or whose patients are mainly in the > 65 years age group are under-represented among sentinel providers. More providers who see older patients are needed to reflect the age distribution of the population in the state.

For more information, visit the CDPH Sentinel Provider webpage at <http://www.cdph.ca.gov/programs/dcdc/Pages/CaliforniaSentinelProviderProgram.aspx>. You can also contact Monica Kang at (510) 620-3761 or email Monica.Kang@cdph.ca.gov



LEADING CAUSES OF MORTALITY AND ACCIDENTAL DEATH

The study of mortality statistics helps us understand the health of our population, and determine the importance and incidence of various causes of death. Each year, the Centers for Disease Control and Prevention (CDC) publishes the ten leading causes of death for the nation, while the California Department of Public Health (CDPH) does this for California, and the SLO County Public Health Department (SLO PHD) does for the County. Trends over time show that in the early twentieth century, infectious diseases caused most deaths, while now the leading causes of death are chronic disease.

In order to understand the whole story, it is important to look at another measure of mortality and health, the study of premature mortality. As most deaths occur among persons in older age groups, the crude and/or age-adjusted rates for all causes of mortality reflect diseases of older persons, such as chronic diseases. In younger people, the cause of death is most likely due to unexpected illness or injury. These statistics are more easily understood by studying premature death, generally defined as a person dying at less than age 75.

Recently, the Public Health Department analyzed ten years of data to determine the leading causes of premature mortality within our community. Between the years 2000-2010, the leading causes of Years of Potential Life Lost (YPLL) were in rank order: accidents, cancer, heart disease, suicides, liver disease, chronic lower respiratory disease, cerebrovascular disease, diabetes, influenza /pneumonia, and Alzheimer's. However, accidents accounted for 30% of the total, cancer accounted for 30%, and heart disease accounted for 18%. Thus, almost 80% of YPLL was due to three main causes. The report goes further, and categorizes YPLL by age group and gender, showing the difference these categories can have on mortality in general, and YPLL specifically.

Because accidents were the leading cause of YPLL, and are considered preventable, a follow-up study was done breaking out accidental deaths. Of the 1,211 accidental deaths that occurred in the ten year study period (excluding 2001), motor vehicle crashes were responsible for 41% of deaths, followed by accidental poisoning (22%). Once again, differences were found when results were stratified by age and gender. Men suffered more accidental deaths than women, and the 20-29 year old age groups experienced the highest number of accidental deaths overall.

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Age groups in general had different leading causes of death, and motor vehicle crashes accounted for most YPLL in the age groups spanning 0-39, and then again between 50-69. Between the ages of 40-49 however, accidental poisoning became the leading cause of accidental death. After the age of 70, falls were the leading cause of accidental death.

Understanding the risk of premature mortality in our population helps identify areas where Public Health can make a difference in our lives. With this information available, we can devise strategies and campaigns to help educate people on how to live healthier, longer lives. These two reports, and several years of annual Health Status Reports for the entire county can be

found on the Public Health Epidemiology web page, available at www.slocounty.ca.gov/health/publichealth/famhealth/epi.htm. You can also google "SLO County Epi Data", and get a direct link to the data and reports page. Please take a moment to look at the types of reports available, and if you have an area of particular interest, let us know. In the next few months, we will be releasing a report on the Epidemiology of Coccidioidomycosis (Valley Fever) and HIV/AIDS. We welcome your feedback.

NUCLEAR POWER PLANT EMERGENCY EXERCISE

On May 21, 2014 the Health Agency participated in the Diablo Canyon Nuclear Power Plant emergency exercise. Every two years, the Federal Emergency Management Agency (FEMA) evaluates the County's ability to effectively respond to an emergency at Diablo Canyon Power Plant. Multiple agencies participate in the exercise to exhibit and practice multi-agency coordination in emergencies. Scenarios vary to test different aspects of the County and Diablo Canyon response plans. This year's exercise simulated a Hostile Action Based Event (HAB) which included simulating intruders, an explosion and casualties. The HAB exercise requirement is one of many new federal requirements that went into effect in 2014 for all commercial nuclear power plants and associated off site emergency response organizations. This was the first evaluated exercise of its type in the Western United States.

The exercise took place in real time with participants being notified and activated as if it were a real-world event. The Health Agency activated 22 staff from a variety of programs to report the County Emergency Operations Center and the County Health Agency Department Operations Center (CHADOC). Health Agency staff was responsible for managing and documenting the medical and health aspects of the response, including monitoring emergency workers' radiation exposure, coordinating the establishment of a



monitoring and decontamination center, and coordinating with healthcare system partners to ensure the system was capable of handling an increased patient load due to the incident.

FEMA evaluators were very pleased with the exercise, noting in an exit briefing that this was, "Really an excellent demonstration; it was an awesome exercise." The FEMA evaluator went on to say there was a lot of good coordination and it was a smooth exercise.

The exercise provided an opportunity for Health Agency staff to prepare for their roles in an emergency at Diablo Canyon Nuclear Power Plant. For more information on how you can prepare for an emergency, please visit: <http://myslo.intra/oes/CWInfo.htm>

ANDROID APP FOR MEDICAL FIRST RESPONDERS

In response to the overwhelming utilization of an iPhone mobile application for Emergency Medical Services (EMS) field personnel and hospital emergency departments to assess and treat County residents and visitors, the San Luis Obispo County Public Health Department's EMS Division released an Android version of the mobile application. Steve Lieberman, Director of the Public Health Department's EMS Division, shared the reasoning behind expanding into the Android platform. "By adding an Android version of this successful application, we will exponentially increase the number of users in San Luis Obispo County, which will further enhance our ability to rapidly and efficiently communicate with all of our EMS responders. It's proved invaluable having

a relationship with a developer who is also an emergency responder, it brings valuable perspective and opportunities for future enhancements to our apps."

Developed by Arroyo Grande resident Craig VanderZwaag's blueHula Studios, the application provides real-time contact information and routing to area hospitals, along with protocols, drug formularies, and checklists for response to pandemics, nuclear power plant related incidents. It also allows the Public Health Department's EMS Division to push out real-time notifications, equipping first responders with vital information to help better serve our community.

Grant funding paid for the creation of the SLO County EMS application, allowing it to be free to EMS field personnel.

Contact the EMSA Division for more information at 781-2511.

SAN LUIS OBISPO COUNTY REPORTED CASES OF SELECTED COMMUNICABLE DISEASES

DISEASE	LAST YEAR 2013		CURRENT YEAR 2014	
	QUARTER ENDING 06/30/2013	TOTAL CASES	QUARTER ENDING 06/30/2014	TOTAL CASES
AIDS/HIV	0/0	0/2	2/3	3/5
Campylobacteriosis	20	26	24	36
Chlamydial Infections	310	465	248	505
Coccidioidomycosis	25	43	11	23
Cryptosporidiosis	1	3	2	6
E. Coli	2	4	1	3
Giardiasis	1	6	1	3
Gonorrhea	15	18	40	69
Hepatitis A	0	1	0	0
Hepatitis B (Chronic)	9	14	8	20
Hepatitis C (Community)	65	75	105	211
Hepatitis C (Correctional)	74	118	58	116
Lyme Disease	0	0	0	0
Measles (Rubeola)	0	0	0	0
Meningitis (Bacterial)	0	0	1	2
Meningitis (Viral)	8	11	7	7
MRSA	0	0	0	0
Pertussis	4	6	12	15
Rubella	0	0	0	0
Salmonellosis	10	14	11	20
Shigellosis	3	4	0	0
Syphilis (Primary/Secondary)	0	1	0	1
Tuberculosis	1	2	1	2

Case counts reflect those reported diseases that meet case definitions as established by the California Department of Public Health. Cases reported by health care providers that do not meet the case definitions are not included in case counts. All cases are for San Luis Obispo County residents only. Persons who do not list San Luis Obispo County as their primary residence and are reported as having a communicable disease are reported in their primary county of residence.



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MAPPING WATER RESOURCES

San Luis Obispo is in the midst of an exceptional drought, which is the most severe designation of drought status. This is the driest year in recorded County history. In an average year, about 30 percent of California’s urban and agricultural water supplies come from groundwater. Reliance on groundwater increases during droughts due to reduced availability of surface water. Drought can also reduce water quality because lower water flows reduce dilution of pollutants and increase contamination of remaining water sources.

In an effort to monitor drought and water levels more efficiently, the Environmental Health Division (EH) has customized and implemented the “Health Viewer”, a web-based interactive GIS mapping application to view, identify, query, analyze, map and report countywide geographic data layers including water purveyors, wells, HAZMAT and Office of Emergency Services facilities, public utilities, assessor and political boundaries and aerial imagery. The integration of these GIS layers allows staff to visualize the spatial relationships and discover the distance proximities between HAZMAT facilities and sensitive receptors such as wells, water systems and populations. Information-rich maps with interactive mark-ups and notes can be created and shared to assist in making informed decisions and timely reactions to daily workflows addressing public health issues.

The mapping for the water service areas was originally created

as a onetime project by the Local Agency Formation Commission (LAFCO). Effective April 2014, EH began to maintain this database which includes mutual water companies, as well as smaller water service areas, and a classification for drought vulnerability levels.

The Health Viewer provides tracking of water resources that is essential for agencies within the County. One potential user of this data is CAL FIRE. In the case of a fire, CAL FIRE can use the data to locate and assess viable water sources. The water purveyors are color coded accordingly so water levels are easily identified. If the water levels are low, CAL FIRE would know to truck in water to fight the fire. The Health Viewer has endless potential. For more information, contact Curt Batson Environment Health Director, at cbatson@co.slo.ca.us or Gina Herbst Mapping & Graphics Systems Specialist at gherbst@co.slo.ca.us.

