

BULLETIN

A QUARTERLY PUBLICATION OF THE SAN LUIS OBISPO COUNTY PUBLIC HEALTH DEPARTMENT

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Public Health
Prevent. Promote. Protect.

HEALTH OFFICER NOTES

Penny Borenstein, M.D., M.P.H.

REDUCE HIV TRANSMISSION AMONG THOSE AT HIGH RISK



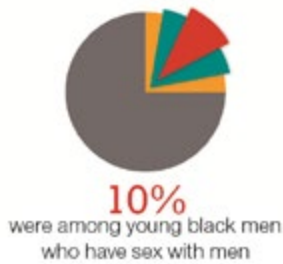
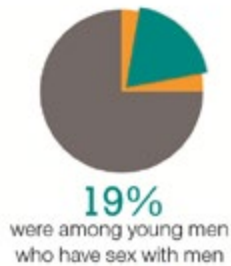
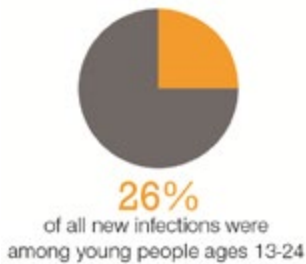
The Public Health Department is joining a growing number of health officials and clinicians by taking action to prevent new HIV infections. Beginning this fall, our clinics will offer prescriptions for pre-exposure prophylaxis (PrEP), a prevention option for HIV-negative individuals at high risk of exposure.

The number of people living with HIV infection has increased steadily each year due to successful antiretroviral therapies coupled with relatively steady new infection rates. Despite all we know about HIV transmission, about 50,000 people in the US become infected with HIV each year. According to the [CDC](#), almost 1 in 8 (12.8%) of the estimated 1.2 million people in the US living with HIV infection are unaware of their infection, which means they are not getting treated and can unknowingly pass the virus on to others. Gay, bisexual, and other men who have sex with men (MSM) accounted for 63% of estimated new HIV infections in 2010. The CDC further reports that young people, aged 13-24 are especially affected by HIV. They comprised 16% of the US population, but accounted for 26% of all new HIV infections in 2010. This disturbing trend is also affecting young people in San Luis Obispo County.

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David Kilburn, Executive Director of [Access Support Network](#) (ASN, formerly known as AIDS Support Network), says ASN of San Luis Obispo has seen a “huge spike” in new HIV cases among young men. ASN provides services to more than 200 HIV-positive people in San Luis Obispo County. Just this year, ASN has seen 12 new cases among young men between the ages of 18 to 28 years of age. Kilburn says the younger generation is not appropriately concerned about becoming infected with HIV and are not taking measures to protect their health.

New HIV Infections Among Young People in the US, 2010



Behavior change is difficult, even when the stakes are high. We know about the dangers of tobacco, yet millions continue to smoke. We also know that we should exercise and eat well, yet obesity is on the rise. We have similar struggles when it comes to HIV, and now we have a powerful new tool to add to our HIV prevention strategy.

Marketed under the trade name Truvada®, PrEP is a once-daily pill that has been shown, when taken consistently, to reduce the risk of HIV infection by up to 92% in people who are at high risk. PrEP is much less effective if it is not taken consistently.

While not for everyone, the [CDC’s 2014 Clinical Practice Guidelines](#) recommend PrEP be considered for people who are HIV negative and who are at ongoing high risk for infection, such as monogamous partners of persons with known HIV infection, high risk (e.g., high partner number or commercial sex work) MSM or heterosexual adults, and injection drug users. The guidelines call for intensive safe-sex counseling, providing and discussing condom use, and regular follow-up doctor visits and HIV tests.

A series of clinical trials have demonstrated the effectiveness of PrEP, yet patient access to this breakthrough medication

remains a challenge. Just a handful of clinicians in our area currently prescribe PrEP; some may not be aware of the medication or are intimidated by the need to provide extensive counseling to patients. Resources for clinicians include the [Clinician Consultation Center](#), the PrEP Support Hotline for Clinicians (1-855-448-7737) and [ASN](#).

While we are excited about adopting this powerful new tool into our existing HIV prevention strategy, effective HIV prevention also requires more resources and attention towards identifying people who are infected with HIV and yet are unaware of their status and in connecting HIV positive people to proper medical care and treatment to suppress the virus and prevent new infection. Today, we encourage other local clinicians to join us in our decision to offer PrEP to high-risk patients.

Thank you for your attention,

DON'T KISS YOUR CHICKENS!



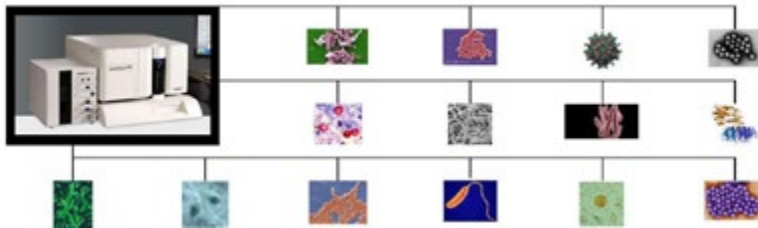
Salmonella outbreaks across the US have been traced to folks cuddling and kissing their backyard chickens and ducks. Live poultry often carry Salmonella germs in their droppings and on their feathers, feet, and beaks—even when they appear healthy and clean. People become infected with Salmonella when they put their hands or other things that have been in contact with feces in or around their mouth. Young children are especially at risk for illness. It is important to wash hands immediately after touching poultry or anything in the area where they live and roam, because the germs on your hands can easily spread to other people or things.

USE OF PCR PANELS FOR DETECTION OF INFECTIONS – A LAB DIRECTOR’S EDITORIAL

Among the advances seen in recent years in laboratory science is molecular detection of infection using micro-arrays and PCR (polymerase chain reaction) panels. The latter involves use of multiple DNA primers (short DNA segments), which each match a unique DNA sequence from a distinct pathogen. With a single test run, using DNA amplification and specific probes (molecules tagged with dyes or other reporter substances), identification of a single disease-causing agent is possible from amongst a panel of one to two dozen possible agents.

As many infections share a common set of signs and symptoms, it is difficult for clinicians to determine which single agent test(s) to order, particularly when dealing with a diarrheal or influenza-like illness. However, test orders for singular or a very small number of pathogen is precisely what occurs often in clinical settings, where ordering numerous tests may be considered financially irresponsible or lacking clinical acumen. A related issue of concern among public health authorities is that the increasing choice of molecular and other culture-independent testing (CiDTs), perhaps in an effort to speed results, may be leading to the abandonment of culturing pathogens. Such a loss of culture isolation can undermine the readiness and stability of public health laboratories and impedes the utility of surveillance systems. One such example is the CDC PulseNet system for foodborne illness which is a modern and critical tool for trace backs to origin of pathogen source location.

Fortunately, the SLO Public Health Laboratory is using advanced PCR panels such as the Respiratory Virus Panel (RVP) and the Gastrointestinal Pathogen Panel (GPP). As described earlier, such panels provide the means to identify specific agents by molecular amplification. These panels have the added public health benefit of allowing culturing of an agent after a molecular signal is observed.



The RVP panel, which can detect numerous respiratory pathogens, has proved useful in the case of an influenza virus outbreak at the County Jail. Some “cases” turned out to be human meta-pneumovirus (HMPV) which enabled a fine-tuned outbreak response. The RVP panel has also been used successfully in distinguishing potential Enterovirus-D68 (cause of recent polio-like illness cases) from Respiratory Syncytial virus (RSV), parainfluenza virus and others.

Isolation of specific agents is also of value in evaluating new potential treatments; the Colorado Hospital for Children has reported that studies are in progress to determine if antivirals such as cidofovir and ribavirin can be used to treat infections caused by RSV, HMPV, adenovirus and parainfluenza virus.

The GPP panel has not been applied to a local outbreak as yet, but in 50% of cases where this panel has been used, often for prolonged symptoms, a specific causative agent has been identified (e.g., salmonella, campylobacter), with subsequent culture and recovery of the agent for surveillance characterization. Other agents include Entamoeba histolytica and Norovirus. The breadth of agents detected promises to solve medical mysteries that sometimes become a diagnostic odyssey for afflicted patients. The GPP has provided a specific diagnosis for travelers who have roamed exotic but less hygienic regions of the globe and brought back more than souvenirs. Testing fact sheets, including the GPP and RVP panels, are available at www.SLOpublichealth.org/lab.

I am encouraged by the performance of the PCR panels and believe that the needs of the medical community and public health can be served with the use of these assays. More are certain to come.

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WHAT'S IN YOUR CANNONBALL?

- At least 1,788 people got sick from contaminated pool, hot tub, lake, and ocean water in 90 separate outbreaks across 32 states and Puerto Rico over a two-year period.
- Cryptosporidium—a diarrhea-causing parasite that is hard to kill with chlorine—caused about half of these illnesses.
- Health professionals, aquatics staff, and swimmers can take easy and effective steps to help keep germs out of pools and hot tubs.

Symptoms of Cryptosporidiosis generally begin 2 to 10 days (average 7 days) after becoming infected with the parasite. The most common symptom of cryptosporidiosis is watery diarrhea, although some people will have no symptoms at all. Other symptoms include: Stomach Cramps or Pain • Dehydration • Nausea • Vomiting • Fever • Weight Loss

Symptoms usually last about 1 to 2 weeks (with a range of a few days to 4 or more weeks) in persons with healthy immune systems. Occasionally, people may experience a recurrence of symptoms after a brief period of recovery before the illness ends. Symptoms can come and go for up to 30 days. People with weakened immune systems may develop serious, chronic, and sometimes fatal illness.



PRIVATE WATER WELLS

If your family gets drinking water from a private well, do you know if your water is safe to drink? What health risks could you and your family face? Where can you go for help or advice?



In San Luis Obispo County, the State Water Resources Control Board, Division of Drinking Water regulates large public water systems (200+ service connections),

and the County Public Health Department regulates the small public water systems (5-199 service connections). Neither of these agencies have the authority to regulate private drinking water wells with less than 5 service connections. Approximately 15 percent of Americans rely on their own private drinking water supplies, and these supplies are not

subject to State or EPA standards. Unlike public drinking water systems serving many people, they do not have experts regularly checking the water's source and its quality before it is sent to the tap. Thus private well households must take special precautions to ensure the protection and maintenance of their drinking water supplies.

Consider testing your well for pesticides, organic chemicals, and heavy metals before you use it for the first time. Test private water supplies annually for nitrate and coliform bacteria to detect contamination problems early. Test them more frequently if you suspect a problem. Be aware of activities in your watershed that may affect the water quality of your well, especially if you live in an unsewered area. In general, there is no adverse impact on overall groundwater quality from a drought.

For more information go to <http://water.epa.gov/drink/info/well/>.

CELEBRATE BREASTFEEDING!

August is National Breastfeeding Awareness Month. The American Academy of Pediatrics recommends that healthy mothers exclusively breastfeed infants for the first 6 months of life. A breastfeeding campaign, funded by the U.S. Department of Health and Human Services, hopes to empower women to commit to breastfeeding by highlighting new research showing that babies who are exclusively breastfed for six months are less likely to develop ear infections, diarrhea and respiratory illnesses, and may be less likely to develop childhood obesity.



According to a August 2014 report produced by the California WIC Association and the UC Davis Human Lactation Center, San Luis Obispo County is ranked 13th in the state for in-hospital exclusive breastfeeding. Hospital practices have an enormous impact on breastfeeding success. Mothers who receive in-hospital support for exclusive breastfeeding often continue to do so after discharge.

The Baby Friendly Hospital Initiative focuses on 10 specific hospital policies that have been demonstrated to increase breastfeeding initiation, exclusivity, and duration. French Hospital Medical Center is already designated a Baby Friendly Hospital. Both Sierra Vista Regional Medical Center and Twin Cities Community Hospital are working on getting their Baby Friendly designations.

SAN LUIS OBISPO COUNTY REPORTED CASES OF SELECTED COMMUNICABLE DISEASES

DISEASE	YEAR 2014					YEAR 2015													
	Jan-Mar		Apr-Jun		Jul-Sep		Oct-Dec		Total Cases	Jan-Mar		Apr-Jun		Jul-Sep		Oct-Dec		Year to Date	
AIDS/HIV	1	2	2	3	2	0	0	4	5	9	1	4	1	2				2	6
Campylobacteriosis	12		24		15		24		75	12		15						27	
Chlamydial Infections	258		245		226		305		1034	291		230						521	
Coccidioidomycosis	12		10		9		8		39	14		9						23	
Cryptosporidiosis	4		2		2		1		9	0		1						1	
E. Coli	2		1		7		5		15	5		3						8	
Giardiasis	2		1		5		2		10	4		2						6	
Gonorrhea	29		40		39		45		153	28		31						59	
Hepatitis A	0		0		0		0		0	0		0						0	
Hepatitis B (Chronic)	12		7		7		11		37	3		2						5	
Hepatitis C (Community)	105		97		54		72		328	52		74						126	
Hepatitis C (Correctional)	58		58		57		52		225	42		30						72	
Lyme Disease	1		0		1		0		2	1		1						2	
Measles (Rubeola)	0		0		0		0		0	0		0						0	
Meningitis (Bacterial)	1		1		2		3		7	1		2						3	
Meningitis (Viral)	0		7		7		4		18	4		4						8	
MRSA	0		0		2		0		2	0		0						0	
Pertussis	3		12		25		3		43	4		7						11	
Rubella	0		0		0		0		0	0		0						0	
Salmonellosis	9		11		9		11		40	11		13						24	
Shigellosis	0		0		2		5		7	1		1						2	
Syphilis (Primary/Secondary)	1		0		0		4		5	1		1						2	
Tuberculosis	1		1		0		1		3	0		0						0	

For more information, please visit the SLO County Epidemiology Data and Publications website. 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. Case counts may change over time, as cases currently under investigation are resolved they are added to the totals.



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Email us at SLOpublichealth@co.slo.ca.us to subscribe, unsubscribe, or send us your suggestions.

WELCOME DR. FARDANESH!

Navid Fardanesh, DDS, was recently hired as the Oral Health Program Manager in Public Health. Navid received his Doctorate in Dental Surgery from the University of California at San Francisco, and did his undergraduate work at UC Davis. Prior to working for the County, he owned two dental practices – one in Ripon and one in Danville.

Dr. Fardanesh has a strong commitment to civic engagement. In Ripon, he volunteered with numerous organizations including serving on the Ripon Planning Commission. Since moving to Templeton he has become a 4-H Leader, joined the Lions Club, and was recently elected Vice Chair of the Templeton Chamber of Commerce.

In 2010, the Affordable Care Act mandated that dental care for children is an essential health benefit, thus potentially expanding access. In addition, the California legislature recently expanded coverage for undocumented children. However, while most children now have dental insurance, there is a dearth of providers locally who accept DentiCal due to historically low reimbursement rates. Children can wait six months or more for new patient appointments. The Central Coast Dental Society screened over 10,000 elementary-aged children early this year and the good news is that 84% of the children screened did not have obvious dental issues. For the

16% with moderate to severe decay, it will be a challenge to get them into care. Dr. Fardanesh plans to focus on prevention and education, and will work with the Dental Society to find sources of care for children with major dental needs.

Welcome!



Pictured Left to Right: Cythnia, Navid, Blake & Hope

An Oral Health Coalition meets every other month at the Public Health Department. If you are interested in helping meet unmet dental needs in the county, please contact Dr. Fardanesh at (805) 781-5503.