Epidemiological Bulletin

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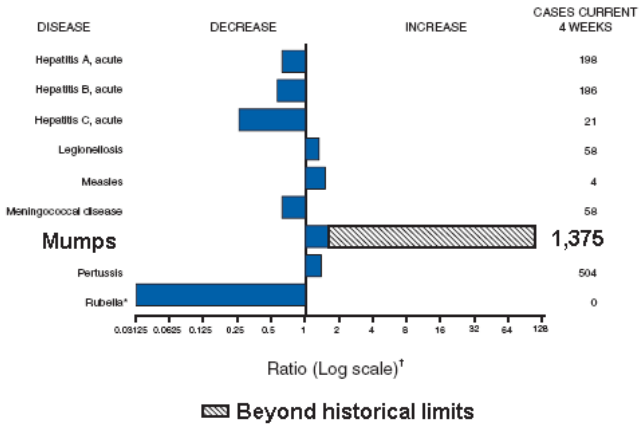
Mumps Update

Catherine S. Sallenave, MD, Assistant Health Officer

Between January 1 and May 2, 2006, 11 states reported 2,597 cases of mumps. Eight states (Illinois, Iowa, Kansas, Missouri, Nebraska, Pennsylvania, South Dakota, and Wisconsin) reported outbreaks with ongoing transmission or clusters of cases; three states (Colorado, Minnesota, and Mississippi) reported cases associated with outbreak states. Most cases (57%) were reported from Iowa (MMWR 55(20):559-563).

The majority of cases have occurred in young people aged 18 to 22, many of whom are college students. Over 20 confirmed, probable, and suspected cases have been reported thus far in California with symptom onset between December 28, 2005 and April 20, 2006. None have been linked to the Midwest outbreaks. In San Mateo County, there were no reported mumps cases between 2003 and 2005, and six cases between 1999 and 2002.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 6, 2006, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 18 of zero (0).
† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

From: MMWR 55(18):527

Mumps is an RNA virus related to human parainfluenza. Prior to the live, attenuated mumps vaccine in 1967, mumps primarily occurred in young, school-aged children. It is a highly infectious virus that spreads rapidly among susceptible people living in close quarters. It is typically transmitted by respiratory droplets, direct contact, or fomites; the incubation period is 15 to 24 days. Viral shedding precedes the onset of clinically symptomatic illness and peak contagion is just before onset of parotitis (swelling of the parotid gland). Due to the continued risk of transmission after parotid swelling, infection control policies advise that people be excluded from school or work until nine days after the first manifestations of illness.

Mumps is frequently accompanied by nonspecific symptoms – low grade fever, malaise, headache, myalgia, and anorexia. Parotitis usually appears in 48 hours and is bilateral in the great majority of cases. It is most common in children aged 2 to 9. Asymptomatic infection occurs in 15% to 20% of cases and is more frequent in adults. Complications of mumps infection include orchitis, aseptic meningitis, encephalitis, and deafness. Treatment of mumps is supportive.

When parotitis is present, mumps diagnosis is based on the characteristic clinical features and laboratory confirmation is not necessary. On the other hand, during an outbreak, laboratory confirmation is important to establish accurate incidence. Laboratory diagnosis can be made by either isolation of virus from urine and/or respiratory specimens or by serologic testing. PCR testing may soon be available.

The Midwest mumps outbreak has shown that MMR vaccination is effective but imperfect. Its efficacy is estimated at about 80% after one dose and 90% after two. There is no evidence at this point to suggest that waning immunity is contributing to the outbreak. It is recommended that children/adolescents aged 1 to 18 and college students be immunized against mumps with MMR (two doses are recommended). The CDC also now recommends that all healthcare workers show documentation of immunity or receive two doses of MMR. Neither vaccine nor IG is effective for post-exposure prophylaxis. The MMR vaccine is a live vaccine and should not be administered to certain groups of patients (i.e., patients with AIDS, transplant recipients, pregnant women).

Further information can be found on the CDC website: www.cdc.gov/nip/diseases/mumps/

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Rapid HIV Test to be Offered in Health Department Sites

Diane Webster, AIDS Program Supervisor

San Mateo County AIDS Program is currently implementing use of the OraQuick® *ADVANCE*™ Rapid HIV-1/2 Antibody Test at its HIV testing sites. Results are available within 20-30 minutes and are 99.6% accurate.[1] This method represents a significant change in the way our HIV testing process has functioned since the beginning of the HIV/AIDS epidemic in the 1980s.

The rapid test eliminates the need to send specimens to a laboratory for all non-reactive tests, providing results in a single session and — most importantly — eliminating the need for clients to return in two weeks. For reactive results, a second specimen is still sent to a laboratory for confirmatory testing. In this case, the client must return for confirmatory test result, but will already know their preliminary positive result. He/she is educated at this initial encounter that even though the result is preliminary, it is more than likely a true positive. The opportunity to provide this preliminary positive result is significant since an estimated 31% of people who test HIV-positive do not return to for their results.[2]

About the Test

OraQuick is approved for use with oral fluid, plasma, and whole blood specimens obtained by finger stick or venipuncture. It is intended for point of care use, in both medical and non-medical settings. The test can, however, be performed in a laboratory after the specimen is collected.

To conduct the test, a vial of developer solution is placed in a reusable plastic stand. The stand holds the vial at the correct angle to ensure accurate test results (see figure). When testing a finger stick specimen, the fingertip is cleaned with alcohol and pricked with a lancet to get a small drop of blood. The blood is collected with a specimen loop, transferred to the vial, and mixed. The testing process is the same for whole blood or plasma obtained by venipuncture and put into a tube containing any of the four most commonly used anticoagulants. For whole blood, the specimen loop is inserted into the tube of blood after the tube has been inverted, to ensure that the blood is thoroughly mixed. For plasma, the blood is first centrifuged to separate blood cells from plasma, and the specimen loop is inserted into the plasma. The specimen loop is then inserted into the test vial and mixed. Oral fluid specimens are collected by swabbing the absorbent pad on the end of the test device along the outer surface of the upper and lower gums. The test device is then inserted into the test vial.

OraQuick® *ADVANCE™* Rapid HIV-1/2 Antibody Test. Test results must be read between 20 and 40 minutes after the OraQuick device is added to the developer solution.[4]

> Counseling with rapid testing can be more intense and client-focused due to the immediacy of results.

Differences in HIV Counseling with Rapid Testing

HIV Counseling and Testing (C&T) is an important part of HIV prevention and treatment services. C&T provides an opportunity to conduct a comprehensive individual risk assessment, and is the best time to provide accurate referrals to more intensive services. It is also one of the primary entry points into prevention and other services. C&T uses short, client-centered counseling that can be effective in increasing condom use and preventing sexually transmitted diseases (STDs).[3]

Because HIV results are available during the same visit, rapid testing will change the way C&T is conducted (although clients can always opt to receive their results later). Because the client needs to wait 20 minutes for the results, the counselor takes the blood early in the session and can then use that time for risk assessment and counseling.

For more information about where rapid HIV testing is provided in San Mateo County, contact the AIDS Program at 650.573.2346, or visit us at www.smhealth.org.

1. Branson BM. Point-of-care rapid tests for HIV antibodies. Journal of Laboratory Medicine. 2003;27:288-295.
2. Centers for Disease Control and Prevention. Advancing HIV Prevention: New Strategies for a Changing Epidemic - US, 2003. MMWR. 2003:52;329-332.
3. Kamb ML, Fishbein M, Douglas JM, et al. Efficacy of risk-reduction counseling to prevent human immunodeficiency virus and sexually transmitted diseases. Journal of the American Medical Association. 1998;280:1161-1167.
4. Adapted from www.cdc.gov/hiv/pubs/rt-lab.htm.

Prevalence of Chlamydia in an Incarcerated Juvenile Population

Tracy Marshall Morton, MPH, Epidemiologist

Chlamydia is the most common bacterial sexually transmitted disease (STD) in the United States, estimated to cause at least five million cases per year in men, women, and infants. Chlamydia infection can cause cervical infection, pelvic inflammatory disease (PID), and even infertility. Chlamydia infections also facilitate HIV transmission. The primary risk factors for chlamydia infection are being under 25 years old and having unprotected sex. Young women in the juvenile justice system in California have one of the highest prevalence rates.

San Mateo County Health Department and Hillcrest Juvenile Detention Facility have, together, collected information on young women screened for chlamydia at the detention facility. Information was collected from October 2002 through June 2005, and included self-reported demographics (e.g., date of birth and race), education, social and sexual history, and alcohol and drug use. Exclusion criteria for this study included males, young women without chlamydia test results, and those with inconclusive, unsatisfactory, or missing result.

Study Population

The study population included 914 young women, of whom 47 (5%) had positive test results for chlamydia. The majority of the population was Hispanic/Latina (41%) or White (32%). Age at the time of booking into the detention facility ranged from 10-19 years (median: 16 years). Although information was not collected on current school enrollment status, 71% reported having some high school education, 21% reported less than a high school education, and 6% reported graduating from high school or receiving their GED.

Almost 90% of the study population reported being sexually active (oral, anal, or vaginal). Age at first sexual activity ranged from 4-17 years (median: 14 years). Among those who were sexually active, 22% reported one lifetime sexual partner, 56% reported 2-5 partners, 15% reported 6-10 partners, and 7% reported 11 or more partners. Of these, 85% reported having only male partners and 2% only female partners. Among those reporting sexual activity, 46% reported always using a condom when they had vaginal sex, 13% reported always using a condom when they had oral sex, and 9% reported always using condoms when they had anal sex.

Table 1. Study Population Demographics by Test Results

	Positive	Negative	Risk Ratio‡	95% CI
Race/Ethnicity				
Hispanic	44.7%	55.3%	1.3	0.7, 2.4
White	17.0%	83.0%	0.4*	0.2, 0.9
Black	21.3%	78.7%	1.8	0.9, 3.7
Hawaiian/Pacific Islander	17.0%	83.0%	2.3*	1.0, 5.0
Asian	-	100.0%	n/a	n/a
Am. Indian/Alaska Native	-	100.0%	n/a	n/a
Age at Time of Booking				
Less than 14 years	-	100.0%	n/a	n/a
14 - 17 years	5.1%	94.9%	1.0	0.4, 2.5
Greater than 17 years	10.0%	90.0%	2.2	0.8, 5.7
Education				
Less than high school	6.7%	93.3%	1.4	0.7, 2.8
Some high school	4.5%	95.5%	0.6	0.3, 1.1
Completed high school	9.3%	90.7%	1.9	0.7, 5.1
More than high school	-	100.0%	n/a	n/a

‡ The risk ratio compares each individual category to *all other categories* in the group.

* $p < .05$ (Wald $\chi 2$ test)

Information was also collected on a variety of social behaviors, including alcohol and drug use. Twenty-two percent of the study population reported having been in an alcohol/drug treatment program, and 11% reported being in a gang. Eight percent reported being a victim of domestic violence and 7% had been homeless. Additionally, less than 10% reported having sex with an anonymous partner, HIV positive partner, IDU partner, commercial sex worker, or giving/receiving alcohol/drugs/money for sex. Almost half (48%) reported use of both alcohol and drugs in the last year and almost two-thirds reported use of either alcohol or drugs in the last year (62%). Moreover, 51% reported use of alcohol in the last year. Marijuana (49%), methamphetamines (26%), cocaine (16%), and ecstasy (13%) were the most frequently reported drugs.

Chlamydia Test Results

Table 1 compares the demographics of young women with positive and negative chlamydia test results.

(continued on page 4)

Table 2. Sexual History by Chlamydia Test Results

	Positive	Negative	Risk Ratio‡	95% CI
Number of Sexual Partners				
One partner	3.7%	96.3%	0.7	0.3, 1.6
2 - 5 partners	7.1%	92.9%	1.8	0.9, 3.6
6 - 10 partners	2.7%	97.3%	0.4	0.1, 1.4
11 - 15 partners	8.7%	91.3%	1.6	0.4, 7.1
16 - 20 partners	-	100.0%	n/a	n/a
More than 20 partners	11.8%	88.2%	2.3	0.5, 10.2
Gender of Sexual Partners				
Male only	6.5%	93.5%	2.6	0.3, 19.2
Female only	-	100.0%	n/a	n/a
Both male and female	1.7%	98.3%	0.5	0.1, 3.9
Previous History				
Any STD	7.2%	92.8%	1.6	0.8, 3.1
Chlamydia	7.8%	92.2%	1.7	0.8, 3.6

‡ The risk ratio compares each individual category to *all other categories* in the group.

Table 3. Frequency of Risk Behaviors by Chlamydia Test Results

	Positive	Negative	Risk Ratio	95% CI
Been in alcohol/drug treatment	0.5%	99.5%	0.1*	0.01, 0.5
Gang member	4.0%	96.0%	0.8	0.3, 2.3
Domestic violence	6.7%	93.3%	1.4	0.5, 3.6
Anonymous sex partners	5.6%	94.4%	1.0	0.4, 3.0
Been homeless	8.3%	91.7%	1.8	0.7, 4.7
Received rugs/money for sex	3.6%	96.4%	0.6	0.1, 4.8
Sex with IDU partner	-	100.0%	n/a	n/a
Given rugs/money for sex	-	100.0%	n/a	n/a

* $p < .05$ (Wald $\chi 2$ test)

Table 4. Alcohol and Other Drug Use by Chlamydia Test Results

	Positive	Negative	Risk Ratio‡	95% CI
Activities				
Use of any drugs	5.0%	95.0%	0.7	0.4, 1.3
Alcohol	4.5%	95.4%	0.8	0.4, 1.4
Use of alcohol or drugs	4.9%	95.1%	0.7	0.4, 1.3
Use of alcohol and drugs	4.5%	95.5%	0.8	0.4, 1.4
Drug Specific Information				
Marijuana	4.5%	95.5%	0.8	0.4, 1.4
Methamphetamines	4.2%	95.8%	0.8	0.4, 1.6
Cocaine	2.7%	97.3%	0.5	0.2, 1.3
Ecstasy	3.3%	96.7%	0.6	0.2, 1.7
Crack	-	100.0%	n/a	n/a
Nitrites	-	100.0%	n/a	n/a
Heroin	12.5%	87.5%	2.7	0.3, 22.2

‡ The risk ratio compares each individual category to *all other categories* in the group.

Hawaiian/Pacific Islanders were twice as likely to test positive for chlamydia compared to the rest of the study population, while Whites were the least likely. Although not statistically significant, those who were older at time of booking were more likely to test positive for chlamydia compared to the rest of the study population. No clear association existed between the amount of schooling completed and test results.

While no association existed between infection and number of sexual partners (Table 2), those who had only male partners were more likely to test positive for chlamydia than those who had at least some female partners. There was no chlamydia among young women who reported only female partners.

Evaluating social behaviors, those who reported being in an alcohol/drug treatment program were less likely to test positive for chlamydia than young women who had not been in treatment (Table 3). However, young women who reported past domestic violence or who had been homeless were more likely than those who had not to test positive for chlamydia.

Contrary to expected outcomes, young women who reported using alcohol were less likely to test positive for chlamydia (Table 4) than those who did not use alcohol. Young women who reported using any drugs were also less likely to test positive.

The collection of this information through the juvenile justice system has provided a glimpse into the lifestyles of young women in San Mateo County who are at higher risk for chlamydia infection. An increase in the number of adolescents screened for chlamydia and answering questions such as those in this questionnaire may help provide a clearer picture of these results. Together with the population description, this information can be used to help develop and drive policy and intervention efforts in the community.

Data Source: Chlamydia Currents, Juvenile Justice Report, September 2004, Chlamydia Screening Project.

Healthy Communities San Mateo County
Blueprint for the Prevention of Childhood Obesity: A Call to Action

Michelle Oppen, MPH, Community Health Planner, Health Policy, Planning & Promotion Unit

With guidance and support from Supervisor Rose Jacobs Gibson and the San Mateo County Health Department, the Healthy Communities San Mateo County Prevention of Childhood Obesity Taskforce has been meeting since April 2005 to produce the *Blueprint for the Prevention of Childhood Obesity: A Call to Action*. The Taskforce is composed of over 250 dedicated leaders from local school districts, community coalitions, parks and recreation departments, boys and girls clubs, YMCAs, PTAs, advocacy agencies, and all hospitals in the county. Through a unique participatory process, San Mateo County has committed to working on a series of objectives that will be enacted at the school, preschool, after school, healthcare, and community/environment levels. The Blue Print includes the following key objectives:

The complete Blueprint includes quantitative and qualitative data; a logic model of the strategic planning process; and an action plan with goals, objectives, and action steps. It is available online at www.smhealth.org/hppp.

- By 2007, there will be an online clearinghouse of resources and ongoing technical assistance offered for local school districts to assist them in developing federally mandated local school wellness policies that address food served at schools for breakfast and lunch, vending machine and ala carte items, physical education, and health education.
- By 2010, all county residents will have access to high quality, appealing, and affordable fruits, vegetables, and other healthy foods.
- By 2010, there will be a plan to provide convenient access to safe, high quality parks, playgrounds, and indoor and outdoor sports and recreation facilities, with affordable programs and green space in all neighborhoods.
- By 2010, there will be a clearinghouse for the entire San Mateo County community of recommended nutrition and physical activity educational materials, curricula, marketing materials, calendar of events, and agency contact information, as well as a referral system for available technical assistance resources.
- By 2010, San Mateo County will have a youth advisory council to provide input on nutrition and physical activity policy and program decisions.
- By 2010, after school facilities will prohibit on-site marketing or contracting of low nutrient foods and beverages via vending machines, posters and other print materials, or electronic resources.
- By 2010, licensed preschool and childcare providers will collaborate with parents and the community to provide culturally appropriate education on the benefits of nutrition, physical activity, and limited TV viewing.
- By 2010, all healthcare facilities in San Mateo County will create and implement facility wellness policies to promote healthy eating and physical activity environments for staff, patients/clients, and visitors.
- By 2010, the taskforce will regularly partner with preschool/childcare, schools, and after school programs to produce a San Mateo County Speakers' Network that focuses on communicating the benefits of adequate nutrition and physical activity, including the prevention of chronic diseases.

The Taskforce will meet next in September.
For more information about the Taskforce or the Blueprint, please contact Michelle Oppen, Community Health Planner at: moppen@co.sanmateo.ca.us.

Dr. John Snow (1813-1858), the "Father of Epidemiology."

Ask the Epi!

Ask the Epi! is a new feature for the *EpiBulletin* designed to answer the questions you have always wanted to ask an epidemiologist! In each issue, the Epidemiology Unit will answer subscribers' questions in an "Epi 101" format. All questions are welcome, and as many will be answered as space provides. Please email your question to epidemiology@co.sanmateo.ca.us.

What is epidemiology?

Epidemiology is considered the basic science of public health. It is the study of the distribution and determinants of health-related states or events in specified populations and the application of this study to control health problems.[1]

What is the difference between an outbreak and a cluster?

A *cluster* is the occurrence of cases of disease that are related in time and/or space and whose incidence is greater than normally expected. An *outbreak* is a cluster that is epidemiologically linked through a common source and/or human-to-human transmission. All outbreaks are clusters, but not all clusters are outbreaks.

What is the difference between active and passive surveillance?

Active and passive surveillance are two approaches to monitoring health outcomes and disease occurrence in the community. Active surveillance refers to a system where *staff initiates* activities such as calling clinics or hospitals to identify cases of a particular disease or other specific health outcome (i.e., case finding). In contrast, passive surveillance systems rely solely on *existing reporting mechanisms* that either mandate or request that healthcare providers (and laboratories) report new cases of disease to the health department. The frequency of diseases in the table on page 10 relies on passive surveillance.

Email questions for this column to epidemiology@co.sanmateo.ca.us

How is an epi curve developed? What are its components?

An epidemic curve ("epi curve") is a histogram that visually represents the number of cases in an outbreak by their date of onset. Epi curves are commonly used during Health Department investigations of outbreaks in the county.

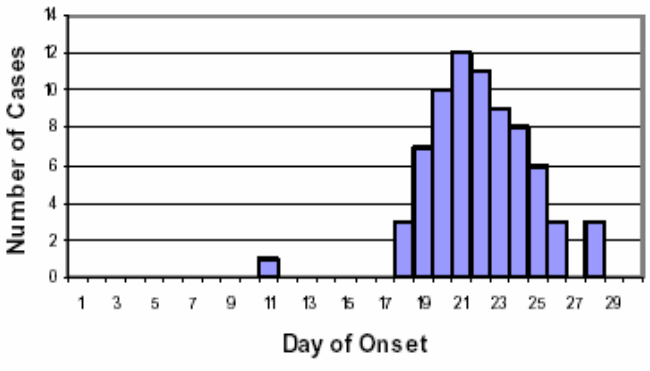
Creating the Epi Curve

The structure of an epi curve is fairly straightforward. The number of cases reported during an outbreak is plotted on the y-axis and the date of illness onset is plotted on the x-axis.

Interpreting the Epi Curve

Epi curves provide useful information about the pattern of spread, magnitude, outliers, time trend, exposure, and/or disease incubation period. The shape of the curve provides information about the type of outbreak – common source, point source, or propagated. Outbreaks that are spread through a point source (i.e., common source with brief exposure such as gastroenteritis after eating contaminated food, without spread to additional people), typically have epi curves with a sudden spike of cases and gradual decline over time as people recover (Figure 1). During these types

Figure 1. Point Source Outbreak[2]

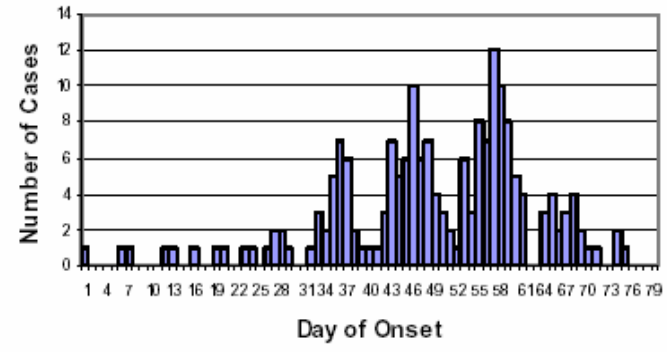


1. Last JM: A Dictionary of Epidemiology, 2nd Edition. New York, Oxford University Press, 1988.
2. Available at: www.sph.unc.edu/nccphp/focus/vol1/issue5/

(continued on page 7)

(Ask the Epi!, continued)

Figure 2. Propagated Outbreak[2]



of outbreaks, the majority of cases occur during one incubation period.

Propagated outbreaks (i.e., those that are spread from person to person) often have epi curves with multiple, increasingly higher peaks that last more than one incubation period (Figure 2).

For common source outbreaks that have a continuous exposure (e.g., contaminated water supply), the epi curve will often show a gradual increase, rather than spike, of cases (Figure 3).

Finally, epi curves of outbreaks with a common and intermittent source of exposure (e.g., contaminated food product) often have irregular peaks, representing different lengths of exposure among ill individuals (Figure 4).

More information about how epi curves can be useful in outbreak investigations can be found at www.sph.unc.edu/nccphp/focus/vol1/issue5/.

Figure 3. Common Source Outbreak with Continuous Exposure[2]

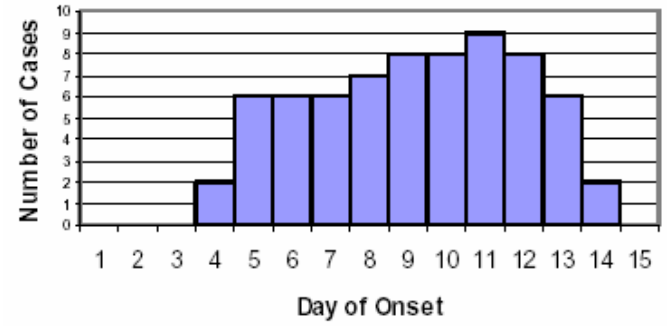
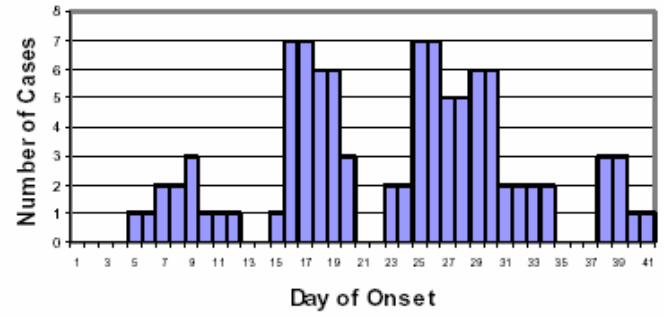


Figure 4. Common Source Outbreak with Intermittent Exposure[2]



For additional information about epidemiology, please see the "What is Epidemiology?" section of our website at www.smhealth.org/epidemiology

Births in San Mateo County, 1995-2004 Chart Book

will be released soon!

Check our website: www.smhealth.org/epidemiology

Hand Washing: Basics are Best!

Sonia Baldessarre, PHN; Lois Korhonen, PHN; Amie Tishler DuBois, PHN
Disease Control and Prevention

One of the most important — and easiest — ways to prevent infections is washing your hands. Hand washing eliminates germs that you have picked up from other people, contaminated surfaces, or animals and animal waste.

A primary control measure during outbreak investigations by Disease Control and Prevention's Public Health Nurses is providing education about routine, frequent, hand washing as a means to stop the spread of infections. Most of the infections we encounter are not vaccine preventable, nor can they be managed with medications such as antibiotics. As Disease Control and Prevention staff, we can encourage the public and other healthcare providers to contribute to everyone's wellness by taking specific steps to prevent the spread of disease. The germs on our hands can spread illnesses such as diarrhea and colds, and even more serious infections such as Hepatitis A and *E. coli*. According to the Association for Professionals in Infection Control and Epidemiology (APIC) and the Centers for Disease Control and Prevention (CDC), hand washing is one of the most important means of preventing the spread of infection.

Hand washing may seem simple and obvious, yet its importance and indisputable effectiveness cannot be overstated.

What Should You Use to Wash Your Hands?

Always try to wash your hands with soap and water. If soap and water are not available, an alcohol-based hand sanitizer is an appropriate alternative.

When Should You Wash Your Hands?

Often. Probably more often than you do currently. Because you cannot see or smell germs, you do not really know where they are hiding. *If you are a healthcare provider, it is especially important to wash your hands*:

- When hands are visibly soiled (dirty);
- When hands are visibly contaminated with blood or body fluids;
- Before and after having direct contact with patients;
- After having contact with body fluids, wounds, or broken skin;
- After touching equipment or furniture near patients;
- After removing gloves;
- Before eating, and after using the restroom;
- Before, during, and after preparing food;
- After handling animals or animal waste;
- More frequently when someone in your home is sick.

Are Alcohol-Based Hand Rubs Really Effective?

More than 20 published studies have found that alcohol-based hand rubs can be effective in reducing bacteria on hands. Several studies found that nurses who routinely used an alcohol-based hand rub between patients had less skin irritation and dryness than nurses who washed their hands with soap and water. Alcohol-based hand rubs contain skin conditioners (emollients) that help prevent the drying effects of alcohol. Remember: alcohol-based hand sanitizers are available as a choice, and *do not replace soap and water* as the first line of defense in prevention of infection.

Education

The Health Department has launched a Hand Hygiene Campaign to increase awareness of the importance of hand washing to elementary, middle and high school students and staff. The campaign consists of 20-30 minute presentations that are age appropriate and interactive.

During these presentations, all participants learn the importance of hand washing, proper hand washing techniques, and when hand washing is vital. Instruction is enhanced by using interactive elements: pictures, props, and music; demonstration of germ simulation; slide presentations and video; discussion; and fun incentives.

Communicable Disease Investigators Terri Lopez and Patricia Sanchez developed the program and are the primary staff involved in the implementation at various school sites. **If you are interested in learning more, or know of a school that is interested in the presentation, please contact Terri or Patricia at 650.573.2346.**

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Here Are Some Tips On How To Wash Your Hands Effectively:

- Wet hands first with **WARM** water (avoid HOT water);
- Apply 3 to 5 ml of soap to hands;
- Rub hands together for at least 15 seconds;
- Cover all surfaces of the hands and fingers;
- Rinse hands with water and dry thoroughly; use paper towel to turn off water.

Here Are Some Tips On How To Use An Alcohol-Based Hand Sanitizer:

- Apply 1.5 to 3 ml (about the size of quarter) of an alcohol gel or rinse to the palm of one hand, and rub hands together;
- Cover all surfaces of your hands and fingers, including areas around and under fingernails;
- Continue rubbing hands together until alcohol dries (about 15-25 seconds);
- Make sure your hands are completely dry prior to putting on gloves;
- Wash your hands with soap and water when you feel a "build-up" of emollients on your hands.

Four Simple Things You Can Do to Protect Yourself and Your Family from Disease

Easy, non-medical steps you can take to protect yourself, your coworkers, and your loved ones.

1. COVER YOUR COUGH AND SNEEZE

- Cover your mouth and nose with a tissue
- Put your tissue in the trash can
- If you do not have a tissue, cough or sneeze into your upper sleeve, not your hands

2. WASH YOUR HANDS

Wash with warm, soapy water for at least 10-15 seconds OR use hand sanitizer after:

- Coughing or sneezing
- Caring for a sick person
- Using the bathroom
- Handling garbage or animal waste

3. KEEP LIVING AND WORK AREAS CLEAN

- Clean areas with household detergents such as dishwashing liquid, laundry detergent, and hand soap.
- Sanitize surfaces with bleach or alcohol

4. KEEP YOUR DISTANCE

- Avoid crowds
- Limit your travel
- Travel to and from work during off-peak hours, if possible
- Work from home, if possible

Selected Reportable Diseases, San Mateo County Residents

	Year of Diagnosis		
	2006 (to date)	**2005**	**2004**
Acquired Immune Deficiency Syndrome (AIDS)	2	19	34
Amebiasis	4	8	1
Anisakiasis	-	-	1
Anthrax	-	-	-
Botulism:			
- Foodborne	-	-	-
- Infant	-	-	-
- Wound	-	-	1
Brucellosis	-	1	1
Campylobacteriosis	61	165	210
Chlamydial Infection	489	1,487	1,485
Cholera	-	-	-
Ciguatera Fish Poisoning	-	-	1
Coccidioidomycosis	3	3	6
Cryptosporidiosis	2	6	11
Cysticercosis	-	-	2
Dengue	-	3	-
Ehrlichiosis	-	-	1
Encephalitis:			
- Arboviral	-	-	-
- Other Viral	-	-	-
E. Coli (0157:H7)	-	9	5
Foodborne Illness Outbreaks	-	2	7
Giardiasis	16	68	63
Gonococcal Infection	83	239	241
Haemophilus influenzae Invasive Disease	-	1	2
Hemolytic Uremic Syndrome (HUS)	-	1	1
Hepatitis: (acute)			
- Type A	1	12	17
- Type B	1	11	28
- Type C	-	2	-
- Type D	-	-	-
- Non-A / Non-B	-	-	-
- Other Viral	-	-	-
Kawasaki Syndrome	-	-	1
Legionellosis	-	2	-
Leprosy	-	3	1
Listeriosis	2	6	3
Lyme Disease	3	7	3
Malaria	-	4	1
Measles	-	-	-
Meningitis, Bacterial	-	3	2
Meningitis, Meningococcal	-	-	1

	Year of Diagnosis		
	2006 (to date)	**2005**	**2004**
Meningitis, Viral	2	13	20
Mumps	-	-	-
Non-Gonococcal Urethritis (NGU)	16	67	64
Pertussis	17	55	48
Pelvic Inflammatory Disease (PID)	8	38	6
Psittacosis	-	-	-
Q Fever	-	1	1
Rabies:			
- Animal	-	-	-
- Human	-	-	-
Relapsing Fever	-	-	1
Rocky Mountain Spotted Fever	-	1	1
Rubella	-	-	-
Rubella Syndrome, Congenital	-	-	-
Salmonellosis	31	127	96
Scromboid Fish Poisoning	-	-	2
Shigellosis:			
- Group A	-	-	-
- Group B	4	10	16
- Group C	-	3	-
- Group D	-	39	24
- Group Unspecified	-	12	8
Smallpox	-	-	-
Syphilis:			
- Primary	1	2	5
- Secondary	1	9	4
- Early Latent	1	1	1
- Late & Late Latent	11	30	16
- Congenital	-	-	-
Tetanus	-	1	-
Toxoplasmosis	-	-	1
Tuberculosis	25	62	56
Tularemia	-	-	-
Typhoid Fever	-	4	1
Typhus Fever	-	1	-
Varicella (deaths only)	-	2	2
Vibrio Infections	-	3	6
Viral Hemorrhagic Fevers	-	-	-
West Nile Virus:			
- West Nile Fever	-	-	-
- Encephalitis	-	-	-
- Meningitis	-	1	-
Yersiniosis	1	3	-

Cases reported as of May 12, 2006

Sources: Confidential Morbidity Report, HIV/AIDS Confidential Case Report Form, and Report of Verified Case of Tuberculosis

Notes from Disease Control and Prevention (DCP)

DCP welcomes the following staff members:

Amie DuBois, RNC, PHN

Amie joined DCP in March 2006 as the Infection Control Public Health Nurse, moving to the Bay Area from Los Angeles. Her clinical and program development experience have been in the areas of community health, women's health, and family violence. Amie developed and coordinated two RN-based clinics in the areas of TB prevention and diabetes management. Before joining DCP, Amie worked as a nurse practitioner for the Santa Monica-UCLA Medical Center, where she coordinated a hospital-based clinic providing 24/7 comprehensive medical and forensic services to victims of violence. Since moving to San Mateo County, she has had her cat vaccinated against rabies.

Vivian Levy, MD

Dr. Levy joined the STD Control Unit as the STD Controller in March 2006. She has been working as a staff physician in the Edison Clinic since completing her Infectious Diseases fellowship at Stanford University in July 2004. Vivian is looking forward to working with the STD control team to improve surveillance of STDs in the county, support STD screening programs in high-risk settings based on our local prevalence trends, and build STD training opportunities for healthcare providers. Her research interests focus on the epidemiology of sexually transmitted infections, including HIV, in California's immigrant populations. Vivian also participates in HIV prevention studies in her native country of Peru as well as in the training of Peruvian physicians in HIV medicine.

Karen Relucio, MD

Dr. Relucio joined the DCP Unit in May 2006 as an Assistant Health Officer, after working 6 years at Edison clinic and 3 years in the Infectious Diseases clinic and inpatient consultation service at SMMC. She completed her infectious diseases fellowship at Stanford in June 2003, and has served on the faculty as a Clinical Instructor in the Division of Infectious Diseases at Stanford. Karen has had previous research experience in metabolic toxicity related to HIV medications, and in the immune response of HIV positive patients in response to HIV therapy. She looks forward to joining the CD team to improve surveillance and disease control, and to help develop programs for bioterrorism and pandemic flu preparedness.

Catherine Sallenave, MD

Dr. Sallenave began working in the DCP in March of 2006, joining us as the Assistant Health Officer. She finished her Infectious Diseases Fellowship at the University of California, Davis in the summer of 2005. Following that, she remained at UCD as an Assistant Clinical Professor, seeing patients and teaching residents in the CARES clinic (Center for AIDS Research and Education Services). Catherine was also involved with the ACTU (AIDS Clinical Trial Unit). Her fellowship research project focused on the changing epidemiology and risk factors for candidemia in ICU patients.

And bids farewell to two friends…

Sarah B. Knowles, PhD, MPH

Since July 2005, Dr. Knowles worked as an epidemiologist and often collaborated with the department of Health Policy, Planning, and Promotion. She was our resident SAS expert and provided strong technical skills in statistical methods. With a song or joke, Sarah quickly put colleagues at ease. Her interest and knowledge in injury epidemiology, foreign languages, and cake will be dearly missed. We wish Sarah the best in her new position with the Palo Alto Medical Foundation.

Tracy Marshall Morton, MPH

Tracy worked as an epidemiologist for the health department since October 2004. Her main projects included response protocols for outbreak investigations, management of the Chlamydia Screening Project (ClaSP), TB epidemiology, and participation in the Prevention of Childhood Obesity Task Force. She was our mentor for effective and efficient outbreak investigation, and personifies grace under pressure. We will sincerely miss her intellectual curiosity, diplomatic discussions, deep integrity, and daily weather updates. DCP wishes Tracy the best in her new position with the Northern Lights Public Health Preparedness Consortium in Wisconsin (please send cheese curds!).

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