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Syphilis in the United States and Virginia

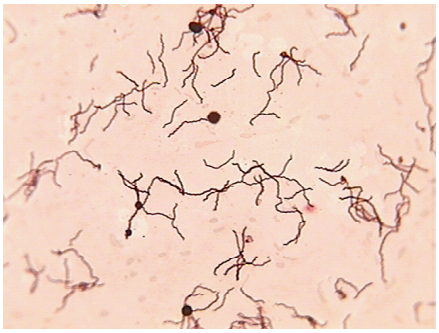
Introduction

Syphilis is a sexually transmitted infection (STI) caused by the bacterium *Treponema pallidum*. The disease is of public health importance because of its preventability, its effect on perinatal morbidity and mortality, its association with HIV transmission, and the seriousness of its consequences if untreated.

Although syphilis levels have been significantly reduced in the U.S., localized outbreaks continue to occur nationwide and in Virginia. Efforts to control syphilis have adapted to address the changing epidemiology of the infection.

In This Issue:

This article briefly reviews the clinical and epidemiologic features of syphilis, and highlights efforts being made to eliminate syphilis.



T. pallidum Infection

Syphilis has often been called "the great imitator" because so many of the signs and symptoms are indistinguishable from those of other diseases. In the primary stage, one or more painless, indurated ulcers (chancres) appear at the site of infection about three weeks (range: 10 days to three months) after exposure and resolve after one to five weeks. The chancre may go unrecognized in rectal, cervical, and oral infections.

The secondary stage of syphilis usually appears four weeks (range: zero to ten weeks) after the chancre has healed and is manifested by a skin rash (typically non-pruritic, rough, red or reddish brown spots both on the palms of the hands and the bottoms of the feet), mucocutaneous lesions, and/or condylomata lata. Lymphadenopathy, headache, myalgias, sore throat, hair loss, fatigue, fever, or other types of rashes (e.g., macular, papular, or squamous) may sometimes occur. These symptoms disappear spontaneously within two to six weeks but may recur within the first four years of latency.

Latent syphilis is the stage in which there are no clinical signs or symptoms but serologic tests for syphilis remain reactive. Patients with latent syphilis who are known to have been infected

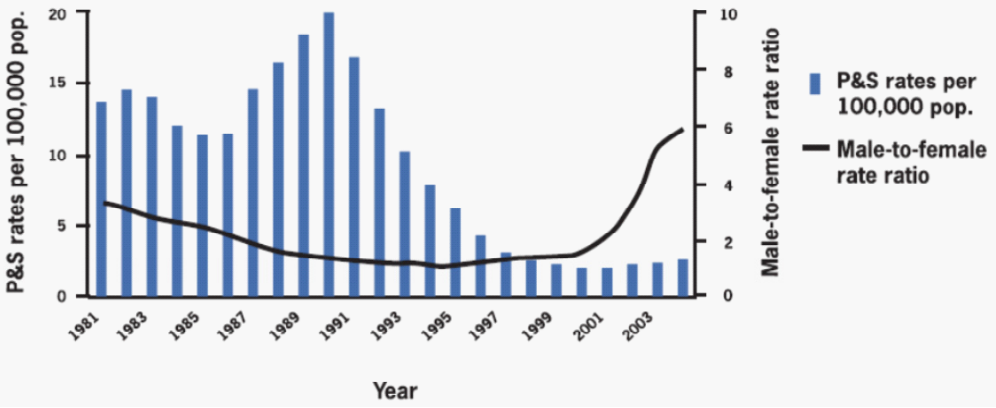
within the preceding year are considered to have early latent syphilis.

'Early syphilis' is defined as primary, secondary, and early latent syphilis diagnosed within one year from the time of infection.

Tertiary (late) syphilis occurs five to twenty years after infection and is characterized by neurosyphilis (including paralysis and/or dementia), cardiovascular syphilis, and gumma formation.

Transmission of syphilis is almost always by unprotected vaginal, oral, or anal sexual contact with an infectious person (i.e., direct contact with exudates from obvious or concealed moist lesions of skin and mucous membranes during the primary or secondary stages, or if there is a recurrence of mucocutaneous lesions during the first four years of latency). Congenital transmission (transplacentally or at delivery) can occur.

Figure 1. Primary and Secondary Syphilis, and Male-to-Female Rate Ratios, U.S., 1981-2004[2]



Testing and Treatment

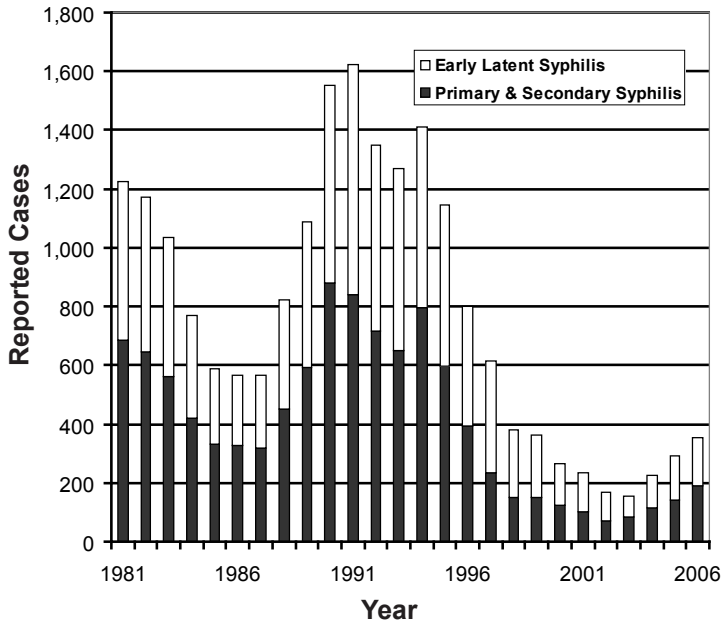
Laboratory tests can confirm the diagnosis of syphilis. Although serology testing is most often used, examination of the exudate from a lesion using a dark-field microscope may show the organism.

Because syphilis sores can be hidden in the vagina, rectum, or mouth, it may not be obvious that a sex partner has syphilis. Therefore, anyone whose sexual behavior puts them at risk for STIs should be screened for syphilis on an on-going basis. In addition, due to the potential for congenital syphilis, pregnant women are an important population for syphilis elimination and should be screened during the first and third trimesters.

Syphilis responds readily to antimicrobial therapy in its early stages and prevents further progression of the disease. Although communicability usually ends within 24-48 hours of treatment, anyone treated for syphilis must abstain from sexual contact with new partners until the syphilis sores are completely healed. A person with syphilis must also notify their sex partners so that they can be tested and receive treatment if necessary.

A previous infection with syphilis does not protect a person from getting it again. Even following successful treatment, people are still susceptible to re-infection.

Figure 2. Reported Cases of Total Early Syphilis in Virginia, 1981-2006



Epidemiology

Nationally

The rate of primary and secondary (P&S) syphilis reported in the United States decreased during the 1990s and in 2000 the rate was the lowest since reporting began in 1941. Unfortunately, the number of cases of P&S syphilis reported to the Centers for Disease Control and Prevention (CDC) have increased each year from 2001-2004 (Figure 1).

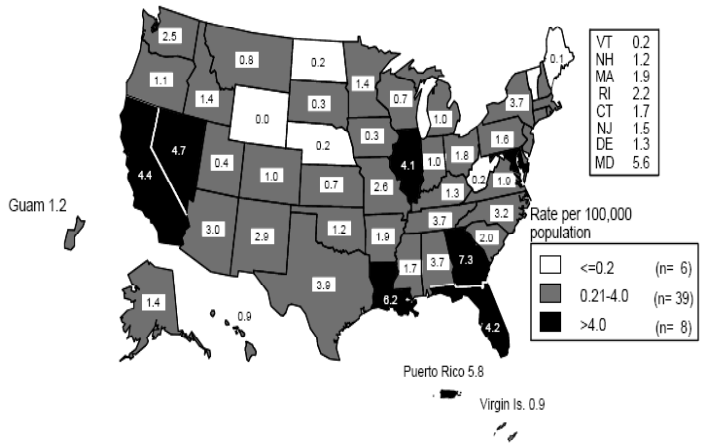
From 2004 to 2005 the number of cases of P&S syphilis reported to the CDC increased by 9.3% (from 7,980 cases to 8,724 cases); in 2005, the overall incidence of P&S syphilis in the United States reached 3.0 cases per 100,000 population (Figure 1). In addition, the number of reported cases of early latent syphilis increased by 5.3% (from 7,768 to 8,176). Reported cases of late and late latent syphilis decreased by 7.2% (from 17,300 to 16,049).[1]

While males have a significantly higher disease risk compared with females, the rate of increase in females has been higher than that in males: during 2004-2005, the rate of P&S syphilis increased 8.5% among men (from 4.7 cases to 5.1 cases per 100,000 men) and increased 12.5% among women (from 0.8 cases to 0.9 cases per 100,000 women). For women, the rate of P&S syphilis was highest in the 20-24 year-old age group (3.0 cases per 100,000 population) in 2005; among men, the highest incidence was in the 35-39 year-

old age group (13.2 cases per 100,000 population).[1] Overall, the male-to-female (M:F) rate ratio for P&S syphilis has risen steadily from 1.2 in 1996 to 5.7 in 2005 (Figure 1).[2]

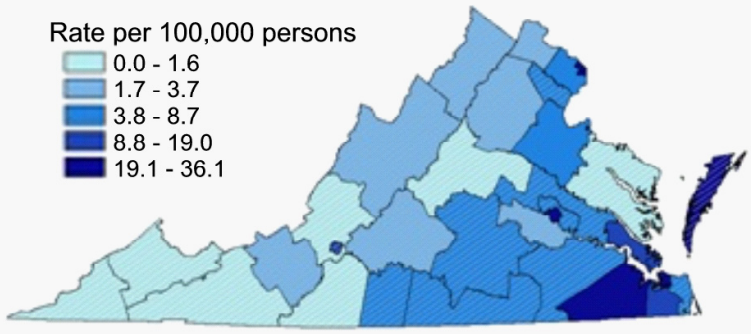
The rising incidence of syphilis in men who have sex with men (MSM) explains the increasing M:F rate ratios, and is in part attributable to recent increases in high-risk sexual behavior. High rates of new sex partner acquisition and partner change rates with rises in unprotected penetrative sex have been documented across the United States. The reasons for the increases are complex. However, HIV sero-sorting, safer sex fatigue, recreational drug use (especially crystal methamphetamine), and HIV treatment optimism, combined with expansions in venues and networks that facilitate risky behaviors, have been identified as important factors.[2]

Figure 3. Primary and Secondary Syphilis, Rates by State, U.S., 2005[1]



Note: The total rate of P&S syphilis for the United States and outlying areas (Guam, Puerto Rico and Virgin Islands) was 3.0 per 100,000 population. The Healthy People 2010 target is 0.2 case per 100,000 population.

Figure 4. Total Early Syphilis Incidence Rates per 100,000 Persons in Virginia, 2005, by Health District



Hatching indicates that rates are calculated based on 10 or fewer reported cases and may not be statistically reliable

In 2005, 41.4% of reported cases of P&S syphilis occurred among African-Americans. The rate of P&S syphilis reported among African-Americans (9.8 cases per 100,000 population) was 5.4 times higher than the rate among non-Hispanic whites (1.8 cases per 100,000 population). In comparison, in 1992 the African-American rate was 62 times the non-Hispanic white rate. This decrease in disparity during the last several years has been the result of the declining rate of P&S syphilis among African-Americans and the increasing rate of infection among non-Hispanic whites. In 2005, the rate per 100,000 population among Hispanics was 3.3; it was 1.2 among Asian/Pacific Islanders; and it was 2.4 among American Indian/Alaska Natives.[1]

During 2004-2005, the M:F rate ratio for P&S syphilis increased among whites (from 10 to 11), African-Americans (from 3.3 to 3.6), Asian/Pacific Islanders (from 11 to 12), and American Indian/Alaska Natives (from 1.3 to 2.1), but decreased among Hispanics (from 7.7 to 6.1).[1]

In 2005, the southern United States continued to have a higher rate of P&S syphilis (3.8 cases per 100,000 population) than any other region in the United States; cases in the southern U.S. accounted for 46.4% of total P&S syphilis cases reported.[1]

Virginia

Syphilis had decreased every year since 1994 in Virginia, reaching an all time low of 156 reported cases of early stage syphilis (P&S and early latent) in 2003. However, since 2003 the number of reported cases has increased each year; in 2006, 353 cases of early stage syphilis were reported (Figure 2). In 2005, Virginia ranked 21st among 50 states, the District of Columbia, and three territories with 1.9 cases per 100,000 population compared to the U.S. rate of 3.0 cases per 100,000 population (Figure 3). Ninety percent of cases were among persons 20-49 years of age.[1] The situation is not improving: for 2006 the number of cases of infectious syphilis reported in Virginia increased by 31% compared to 2005. As of early April 2007 a 39% increase in infectious syphilis compared to the same time period in 2006 has been recorded.

In Virginia in 2005 the incidence of P&S syphilis among males was 3.4 per 100,000 population compared to the national rate in males of 5.1 per 100,000. The rate among females was 0.5 per 100,000 compared to the U.S. rate in females of 0.9 per 100,000. Similar to the national pattern, 82% of cases since 2005 have been in males (M:F incidence ratio = 6.8), with most reporting MSM or bisexual risk behavior. Approximately 30% of the reported cases in 2006 were co-infected with HIV.

The race/ethnicity adjusted rates per 100,000 population were 1.0 among whites, 5.3 among African-Americans, 2.3 among Hispanics, 0.3 among Asian/Pacific Islanders, and <0.1 among American Indians/Alaska Natives in Virginia in 2005. The racial/ethnic distribution of reported syphilis varies

widely depending on the region of the state. For example, in the eastern region 88% of case reports are among African-Americans, while in the northern region 55% of case reports are among whites.

Virginia reported three cases of congenital syphilis in 2005—this equated to 3.0 cases per 100,000 live births compared to the U.S. rate of 8.0 cases per 100,000. Overall, Virginia ranked 20th among 28 states and two territories reporting at least one congenital syphilis case.

The eastern region of Virginia has experienced the largest increase in syphilis cases recently. Figure 4 shows the significant burden of syphilis in this region. In 2006, cases from the eastern region accounted for 160 (45%) of the cases of early syphilis reported in Virginia. And in 2006, for the first time since the 1980s, a newborn meeting the case definition for syphilis stillbirth was reported in Virginia (in the eastern region).

Syphilis Elimination Effort

Syphilis elimination is defined as the absence of sustained transmission of primary and secondary syphilis.[2] The Syphilis Elimination Effort (SEE) is a national initiative that brings together healthcare professionals, policy makers, community leaders, and state and local public health agencies to reduce syphilis rates in the United States. The SEE was based upon the understanding that eliminating syphilis would require combining intensified traditional methods of STI control with innovative approaches to enhance the effectiveness of interventions.

Since the launch of the SEE in 1999, the significant changes in risk groups, social environments, and the epidemiology of infectious syphilis in the United States have created new challenges. For example, syphilis is now increasingly diagnosed in the private sector. This requires strong partnerships between healthcare professionals and local health departments to ensure that patients receive appropriate public health follow-up to identify other cases. At the same time, public health services face increasing pressures from rising demand and decreasing financial resources.

As a result, in 2006 the SEE was reframed by the CDC to create a dynamic, evidence-based, culturally competent prevention and control action plan for the elimination of syphilis from the United States.[2] By 2010, interim elimination targets will be to reduce national rates of primary and secondary syphilis to less than 2.2 per 100,000 population; congenital syphilis to fewer than 3.9 per 100,000 live births; and the African-American: white racial disparity to a ratio of less than 3:1. In order to achieve this, the CDC will focus on reaching three syphilis elimination goals:

1. **Investment in and enhancement of public health services;**
2. **The prioritization of evidence-based, culturally competent interventions; and,**
3. **The creation of accountable services and interventions.**

For each of the three goals, the CDC recommends that syphilis elimination activities be delivered in three strategic areas of focus (the "3-By-3" approach to syphilis elimination), resulting in nine strategies (Table 1).

Virginia Division of Disease Prevention Activities

The Virginia Department of Health Division of Disease Prevention (DDP) has received funding from the CDC since 2000 to address syphilis elimination. At that time, Congress had allocated funds to the CDC for a national effort aimed at eliminating syphilis as a public health problem in the United States. With a limited amount of funds, the CDC focused funding during the first year to address the 25 cities and counties that accounted for over half of the cases in the U.S.[3] Danville, VA was one of those cities and made Virginia eligible to receive syphilis elimination funds. After a 12 month effort, syphilis was eliminated in Danville, making it the first of the original 25 cities and counties to actually succeed.

Since that time, DDP has been involved in activities aimed at trying to prevent outbreaks from occurring. Using the CDC's 3-By-3 approach to syphilis elimination (Table 1) as a guide, VDH's Virginia Epidemiology Response Team (VERT) has worked with a number of health districts to strengthen the infrastructure for syphilis prevention. In many instances this has involved providing temporary personnel to the district to support interventions. VERT has also worked with other health jurisdictions outside the Virginia border when their disease burden affected

Syphilis Elimination Goal	Syphilis Elimination Strategies
1. **Investment in, and enhancement of, public health services and interventions**. Public health services will achieve excellence in diagnosis, management, and reporting of syphilis and its adverse outcomes, especially those at greatest risk of health disparities.	1. Improve and enhance syphilis surveillance and outbreak response. 2. Improve and quality assure clinical and patient services. 3. Improve and quality assure laboratory services.
2. **Prioritization of evidence-based, culturally competent interventions.** Public health services will improve the advocacy, acceptability, and appropriateness of their response to syphilis epidemics through the creation of productive and proactive partnerships with external stakeholders.	1. Mobilization of affected communities. 2. Tailoring intervention strategies for affected populations. 3. Mobilization of, and creating alliances with health care providers.
3. **Accountable services and interventions.** Public health services will improve the effectiveness of their interventions by improving accountability for their planning, implementation, and evaluation.	1. Training and staff development. 2. Evidence-based action planning, monitoring, and evaluation. 3. Research and development.

Table 1. The 3-by-3 approach to Syphilis Elimination in the United States

Virginia. This multi-state approach occurred most recently in 2003 and 2004 when the DC Department of Health and the Maryland Department of Health and Mental Hygiene worked together with VERT and several health districts in northern Virginia. The collaborative effort targeted sex venues in Washington, DC to screen their patrons for syphilis and HIV. These venues had been identified through epidemiologic intelligence gathered from case investigations in Virginia, Maryland, and DC.

DDP activities have also included outbreak control. For example, in May 2005 a cluster of syphilis cases was detected in Suffolk, VA. At the time, the local health department had been notified of seven case reports of syphilis (compared to an average of four cases annually for the previous four years). VERT was deployed to assist Suffolk with rapid case identification techniques to assess whether an outbreak was occurring. Over the next month and a half, six more cases were identified. Fortunately, the outbreak had been identified in its early stages.

By August, all available VERT resources were deployed to assist. By the end of September 2005, 19 more cases had been diagnosed and reported. Of these, 15 (79%) were identified via rapid case finding efforts employed by the Suffolk Health Department and VERT. These efforts included case management and social networking. A media blitz and community screening events also led to the identification of additional cases. This process ultimately halted the increase in the number of cases. Suffolk ended up with only 34 cases in 2005; this decreased further to 19 cases in 2006. For comparison, there were nearly 250 cases reported in Suffolk in 1993.

Other Recent Syphilis Prevention Activities

- DDP has developed a protocol for partner notification services via the internet in response to the increase in anonymous sex arranged through web sites and chat rooms.
- Three community-based organizations, two in Norfolk and one in Danville, were funded to conduct syphilis prevention education to high risk populations. These groups established 30 fixed outreach sites through which 3,000 pieces of literature were disseminated. Health fairs reached 5,547 people in the Eastern health planning region. More than 12,700 basic street outreach contacts were made and 568 at-risk persons were recruited into interventions.
- VERT conducted nine syphilis screenings in 2005. In the Eastern health planning region activities included bar outreach and targeted screening for MSM, street outreach and testing of sex workers, park outreach and testing of homeless persons and substance abusers, and three screenings during the Suffolk outbreak. In the Central health planning region, VERT collaborated with the Fan Free Clinic to conduct two syphilis and outreach screenings at a gay bar. In northern Virginia, VERT collaborated with the Whitman Walker Clinic and the Alexandria and Arlington Health Departments in a screening event targeting Latino men at a day labor organization.
- Despite successful coordinated targeted outbreak response efforts between VERT and the local health districts in the Eastern health planning region, the significant increase in the number of cases of syphilis in 2006 has required an enhanced response. VDH will implement rapid outbreak response, enhanced syphilis surveillance, increased health promotion, and increased community involvement. DDP has developed a social marketing campaign to heighten awareness of the syphilis problem in the affected communities. With a theme of "Get Tested", the campaign will consist of radio and television commercials in the Eastern, Central, and Northern health planning regions of the Commonwealth. Venue-specific promotions involving other types of ads, such as posters and giveaways, will also be employed. The campaign is slated to begin in May 2007.

What Healthcare Professionals Should Do

- Maintain a high index of suspicion – signs and symptoms of syphilis mimic other conditions;
- Provide syphilis testing to at-risk clients (gay or bisexual men, clients with multiple sex partners, pregnant women, persons using drugs, anyone infected with HIV or any other STI); and,
- Report positive results to the local health department within 24 hours. Local health department staff will work with each case to notify, test, and treat at-risk contacts.

References

1. Center for Disease Control and Prevention.Sexually Transmitted Disease Syphilis Surveillance Annual Report, 2005. www.cdc.gov/std/Syphilis2005/SyphSurvSupp2005Short.pdf.
2. Centers for Disease Control and Prevention. Together we can. The National Plan to Eliminate Syphilis from the United States. Atlanta, GA: US Department of Health and Human Services, May 2006. www.cdc.gov/stopsyphilis/SEEPlan2006.pdf.
3. Centers for Disease Control and Prevention. Primary and Secondary Syphilis – United States, 1999. MMWR Vol. 50, No. 7, February 23, 2001. www.cdc.gov/mmwr/preview/mmwrhtml/mm5007a1.htm.

Resources

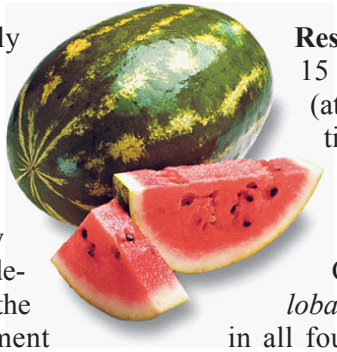
Syphilis Elimination in Virginia – www.vdh.virginia.gov/epidemiology/DiseasePrevention/Programs/Syphilis/index.htm

Virginia Annual Report, 2004 – www.vdh.virginia.gov/Epidemiology/Surveillance/SurveillanceData/AnnualReports/index.htm

CDC Syphilis Elimination Effort – www.cdc.gov/stopsyphilis/

CDC Syphilis Fact Sheet – www.cdc.gov/std/syphilis/STDFact-Syphilis.htm

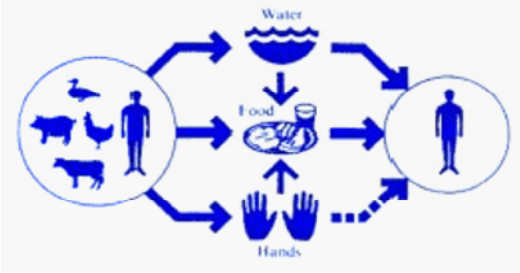
Nothing Says Summer Like Baseball, Watermelon, Barbecue, and Campylobacter



Background: In late July 2006 an outbreak of acute gastroenteritis occurred among families who attended a picnic held on a farm at the end of youth baseball season. On July 28, 2006, the local health department was notified of the outbreak. Health department staff investigated to identify the source of the outbreak and to prevent further transmission.

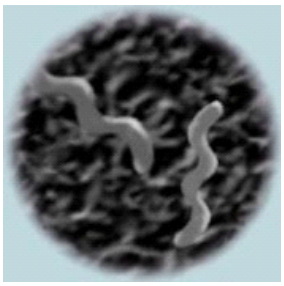
Methods: Epidemiologic, laboratory, and environmental investigations were conducted. This involved a retrospective cohort study using a standardized questionnaire to determine the potential source of exposure. Stool specimens were submitted for culture. Agricultural and commercial food sources were inspected for potential contamination.

Results: Of 32 respondents, 15 reported gastroenteritis (attack rate=46.9%). Relative risk analysis showed consuming watermelon to be a significant risk factor (RR=14.0, 95% CI=2.08, 94.24). *Campylobacter jejuni* was identified in all four of the stool samples submitted for laboratory analysis. Environmental investigations conducted at potential sources for the watermelon yielded no evidence of contamination.



***Campylobacter jejuni* Transmission**

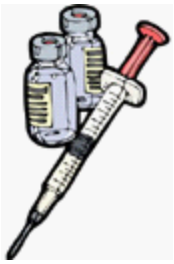
Conclusions: The watermelon was implicated through the epidemiologic analysis. It is unknown if contamination of the watermelon originated from soiled hands, soiled cutting implements and/or surfaces, or contamination within the melon itself. Epidemiology team members used the interviews as an opportunity to educate the outbreak cohort on the importance of hand hygiene, especially after outdoor activity and prior to eating, and of washing produce before consumption.



Submitted by: Kristin Kidd Donovan, MPH
District Epidemiologist, Chickahominy Health

FDA Approves Accelerated Dosing Schedule for Twinrix®

On March 28, 2007, the Food and Drug Administration (FDA) approved an accelerated dosing schedule for Twinrix® [Hepatitis A (Inactivated) and Hepatitis B (Recombinant) Vaccine, GlaxoSmithKline]. The schedule consists of three doses given within three weeks followed by a booster dose at 12 months (0, 7, 21–30 days, 12 months).



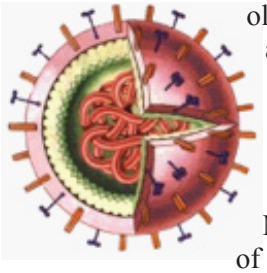
The accelerated schedule could benefit individuals traveling to high-risk areas; emergency responders, especially those being deployed to disaster areas overseas; and others who are at risk for hepatitis A and B infection.

To read the FDA product approval information, go to: www.fda.gov/cber/products/hahbgsk032807.htm

To read the package insert, go to: www.fda.gov/cber/label/hahbgsk032807LB.pdf

Flu Corner

Although norovirus outbreaks have been remarkably widespread this winter/spring, influenza season has been mild. While influenza circulates year round, the seasonal (winter/spring) increase in activity appears to be decreasing.



Seasonal Influenza Surveillance

For the week ending March 31, 2007, the Division of Consolidated Laboratory Services (DCLS) reported three positive influenza cases by direct fluorescent antibody test (DFA), reverse transcription polymerase chain reaction (RT-PCR), and/or culture. Since October 7, 2006, DCLS has reported a total of 45 confirmed influenza cases (7 of type A [not subtyped]; 12 of type A/H1; 12 of type A/H3, and 14 of type B) in Virginia. Three laboratory confirmed outbreaks have been reported thus far. This is significantly less than the 2006 influenza season, when 90 confirmed cases and 11 confirmed outbreaks had been reported in a comparable period. Please see the Virginia Department of Health website at www.vdh.state.va.us/epi/flu.asp for up-to-date Virginia surveillance information.

In the U.S., for the week ending March 31, 2007, 10 states (including Virginia) reported widespread influenza activity, nine states reported regional activity, 13 states reported local influenza activity, 17 states reported sporadic activity, and one state reported no activity. The nationwide proportion of patient visits to sentinel providers for influenza-like illness (ILI) was 2.2%—this percentage is slightly above the baseline of 2.1%. The proportion of deaths attributed to pneumonia and influenza in 122 cities monitored by the U.S. Centers for Disease Control and Prevention (CDC) was below the epidemic threshold. A total of 40 influenza-associated pediatric deaths have been reported to the CDC for the 2006-07 influenza season.

During the week ending March 31, 2007, 260 (10.3%) of 2,524 specimens tested for influenza viruses by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories were positive for influenza. See Table 1 for details regarding national influenza statistics.

Please see the CDC website at www.cdc.gov/flu/weekly/fluactivity.htm for up-to-date details on influenza surveillance in the U.S.

2007-08 Influenza Vaccine:

WHO has recommended that the 2007-08 trivalent influenza vaccine for the Northern Hemisphere contain:

- A/Solomon Islands/3/2006-like (H1N1);
- A/Wisconsin/67/2005-like (H3N2); and,
- B/Malaysia/2506/2004-like viruses.

The influenza A (H1N1) component has been changed from the 2006-07 season vaccine components (A/Solomon Islands/3/2006 is a recent antigenic variant of the current vaccine strain A/New Caledonia/20/99). The influenza A (H3N2) and influenza B components remain the same (B/Ohio/1/2005 is antigenically equivalent to B/Malaysia/2506/2004). This recommendation was based on antigenic analyses of recently isolated influenza viruses, epidemiologic data, and post-vaccination serologic studies in humans.

Table 1: National Influenza Statistics*

	Week ending March 31, 2007	Oct. 7, 2006 to March 31, 2007
Specimens Tested	2,524	147,886
Specimens Positive	260 (10.3%)	20,006 (13.5%)
- Influenza A	181 (69.6%)	15,986 (79.9%)
- Influenza B	79 (30.4%)	4,020 (20.1%)

*U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories

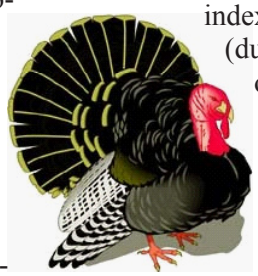
Avian Influenza

As of April 2, 2007, the total number of human cases of H5N1 influenza reported by the World Health Organization (WHO) is 288, including 170 deaths (59.0%). The WHO has published a timeline of H5N1 events among animals and humans, which can be viewed at: www.who.int/csr/disease/avian_influenza/Timeline_2007_03_20.pdf.

Avian Influenza (H5N2) Identified in West Virginia

In early April, 2007, low pathogenic avian influenza (H5N2) was identified via serologic testing in a turkey farm in West Virginia, four miles from the border with Virginia. This is NOT the same avian influenza strain (H5N1) that has caused human illness in Asia and Europe. There is no health risk to the general public from this strain.

Testing was performed as part of routine pre-slaughter surveillance. There was no clinical illness in the flock, and no evidence of illness in farms in the immediate area surrounding the flock. As a precaution, the index flock was depopulated (due to the contagious nature of the disease, as well as to prevent possible mutation to a highly pathogenic strain) and enhanced surveillance in the region was implemented. The Virginia State Veterinarian and the Virginia Poultry Federation also activated movement controls as well as enhanced surveillance/testing of flocks in the Shenandoah Valley. This included commercial and backyard flocks with geographic proximity or epidemiologic links to the index flock. No additional cases have been detected.



Avian influenza is not transmissible by eating properly handled and cooked poultry and eggs. Direct human

Cases of Selected Notifiable Diseases Reported in Virginia*

Disease	Total Cases Reported, February 2007						Total Cases Reported Statewide, January - February		
		Regions							
	State	NW	N	SW	C	E	This Year	Last Year	5 Yr Avg
AIDS	18	6	4	0	2	6	45	59	91
Campylobacteriosis	28	2	7	7	7	5	50	48	37
Chickenpox	5	2	0	3	0	0	8	43	45
***E. coli,* Shiga toxin-producing**	4	0	1	1	2	0	11	4	2
Giardiasis	14	4	6	0	4	0	45	53	37
Gonorrhea	412	22	24	49	173	144	723	962	1,300
Group A Strep, Invasive	10	3	2	2	2	1	15	15	9
Hepatitis, Viral									
A	5	2	2	1	0	0	9	3	7
B, acute	9	0	3	5	1	0	15	4	16
C, acute	1	0	0	0	0	1	1	0	0
HIV Infection	69	1	12	1	11	44	98	134	112
Lead in Children†	39	3	2	7	9	18	53	76	60
Legionellosis	0	0	0	0	0	0	3	5	3
Lyme Disease	17	1	13	1	1	1	30	0	1
Measles	0	0	0	0	0	0	0	0	0
Meningococcal Infection	0	0	0	0	0	0	2	3	2
Pertussis	6	1	0	1	0	4	16	12	13
Rabies in Animals	50	17	9	8	7	9	80	71	65
Rocky Mountain Spotted Fever	1	0	0	1	0	0	2	0	0
Rubella	0	0	0	0	0	0	0	0	0
Salmonellosis	40	0	11	8	10	11	96	57	69
Shigellosis	1	0	0	0	0	1	5	3	44
Syphilis, Early§	32	2	8	5	6	11	70	44	24
Tuberculosis	22	3	12	0	1	6	22	19	21

Localities Reporting Animal Rabies This Month: Accomack 2 raccoons; Albemarle 1 raccoon; Amelia 1 skunk; Augusta 2 raccoons; Bland 1 raccoon; Clarke 1 fox, 1 raccoon; Cumberland 1 skunk; Fairfax 1 cat, 2 foxes, 2 raccoons, 1 skunk; Fauquier 1 skunk; Floyd 1 raccoon, 1 skunk; Hampton 1 raccoon; Hanover 1 raccoon, 3 skunks; James City 1 fox, 1 skunk; King George 1 raccoon; Loudoun 1 cow, 2 raccoons; Mecklenburg 1 skunk; Montgomery 1 raccoon; Patrick 1 raccoon; Roanoke 1 cat; Rockbridge 1 cow; Rockingham 1 raccoon; Shenandoah 1 fox, 4 skunks; Spotsylvania 1 cow; Stafford 1 skunk; Tazewell 1 raccoon, 1 skunk; Virginia Beach 1 fox, 3 raccoons; Warren 1 raccoon.

Toxic Substance-related Illnesses: Adult Lead Exposure 7; Pneumoconiosis 5.

*Data for 2007 are provisional. †Elevated blood lead levels ≥10µg/dL. §Includes primary, secondary, and early latent.

infection with low pathogenic avian influenza (LPAI) viruses occurs very infrequently, and has been associated with contact (e.g., touching) infected sick or dead birds. When LPAI infection does occur, human illness is generally mild. For example, following an outbreak of H7N2 in 2002 among poultry in the Shenandoah Valley area, no human illness was detected and only one person was found to have serologic evidence of infection with H7N2.

Pandemic Influenza Planning

On February 1, 2007, the CDC released its "Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States." This document outlines early, targeted, layered use of non-pharmaceutical interventions to reduce the impact of a pandemic of influenza during the 4-6 month period of time before a vaccine is available. The goals of this approach are to limit the spread of the pandemic; mitigate disease, suffering, and death; sustain infrastructure; and minimize social and economic disruption. The Guidance is based on the premise that planned early use of multiple interventions will be more successful than uncoordinated use of individual measures.

For more information, go to: www.pandemicflu.gov/plan/community/community_mitigation.pdf.