Communicable Disease Summary 2011

FAIRFAX COUNTY HEALTH DEPARTMENT

www.fairfaxcounty.gov/HD

Fairfax County Health Department
2011 Communicable Disease Summary

Dear Colleague:

Communicable disease surveillance, prevention, and control are core activities of the Fairfax County Health Department. Each year, the Communicable Disease/Epidemiology Unit investigates thousands of reports of suspected communicable diseases and works in partnership with local public health system partners such as the healthcare community, laboratories, public safety professionals, schools and institutions of higher education, the Virginia Department of Health, and other agencies to promptly identify, prevent, control and monitor diseases in the community.

This second edition of the Health Department's *Communicable Disease Summary* presents the results of those investigations and highlights the reportable diseases that most impacted the Fairfax community in 2011. The report also describes the communicable disease services provided by the Health Department and offers practical guidance for clinicians that we believe will help mitigate the future impact of these diseases.

The effectiveness of public health investigations often depends on the timeliness of notification. Prompt reporting by clinicians can dramatically impact the course of these investigations and help to limit the spread of illness because Health Department staff are able to ensure the early implementation of appropriate infection control measures and facilitate laboratory testing. Staff are also able to conduct timely epidemiologic studies to determine the source of illness or perform contact tracing to identify exposed individuals when time-sensitive interventions such as antibiotic and vaccine prophylaxis are still indicated.

The information presented in this report represents the collaborative efforts of all of the Fairfax County public health system partners who contribute to the communicable disease surveillance, prevention, and control activities undertaken by the Health Department. We thank you for your contributions and look forward to your continued partnership and support in the ongoing effort to improve the health and well-being of the Fairfax community.

Sincerely,

Gloria Addo-Ayensu, MD, MPH
Director of Health

Table of Contents

Disease Summary 2

Highlighted Diseases

Invasive Group A Strep 3

Pertussis 4

Varicella 5

Influenza 6

Tuberculosis 7

HIV/AIDS 8

Syphilis 9

Rabies 10

Tickborne Diseases 11

Travel-Associated Diseases 12

Outbreak Summary 13

CD/Epi Unit Description & Contact Information 14

Reporting Information ..... *Insert*

Fairfax County Health Department
Communicable Disease/
Epidemiology Unit
703.246.2433 • TTY 711
Fax: 703.385.3681
www.fairfaxcounty.gov/hd

The mission of the Fairfax County Health Department is to protect, promote and improve health and quality of life for the residents of Fairfax County.

Table 1. Reported cases of selected communicable diseases, Fairfax County 2002-2011*

Disease	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011[α]	5 year average 2006-2010
AIDS	70	82	66	59	72	74	69	65	62	52	68.4
Amebiasis	5	9	4	12	10	9	17	7	5	4	9.6
Brucellosis	0	0	1	1	0	0	0	0	0	0	0
Botulism, infant	0	0	0	0	0	0	0	1	0	1	0.2
Campylobacteriosis	72	98	80	91	93	83	101	121	105	93	100.6
Chlamydia trachomatis infection	833	728	924	1284	1272	1310	1577	1572	1590	1803	1464.2
Cryptosporidiosis	2	11	6	4	7	5	13	19	17	24	12.2
Cyclosporiasis	0	1	1	0	0	0	0	0	0	0	0
Dengue fever	-	-	-	-	-	8	2	0	3	7	3.25
Escherichia coli infection, Shiga toxin-producing	6	7	4	21	31	30	59	27	27	13[£]	34.8
Ehrlichiosis/Anaplasmosis	0	1	0	2	2	2	11	1	7	17	4.6
Giardiasis	65	73	92	86	83	100	78	93	110	52	92.8
Gonorrhea	234	188	201	229	120	88	224	216	205	212	170.6
Haemophilus influenzae, invasive	1	3	1	4	3	2	6	9	8	13	5.6
Hansen's Disease (Leprosy)	0	0	0	0	1	0	0	0	1	1	0.4
Hepatitis A, acute	26	29	28	34	20	24	24	10	8	0	17.2
Hepatitis B, acute	9	10	6	6	6	8	10	5[±]	1	5[±]	6.25
HIV infection	109	110	103	125	149	121	126	105	113	95	122.8
Influenza-associated mortality (less than age 18)	0	0	0	0	0	0	0	1	0	1[∞]	0.2
Lead, elevated blood levels	54	33	60	28	41	16	26	33	31	21	29.4
Legionellosis	0	6	6	3	5	3	9	7	7	9	6.2
Listeriosis	0	2	3	3	3	2	2	0	0	4	1.4
Lyme disease	69	10	1	10	102	208	191	260	256	149	203.4
Malaria	6	15	16	7	17	21	13	16	19	29	17.2
Measles	0	0	0	0	0	0	0	0	0	0	0
Meningococcal disease (*Neisseria meningitidis*)	6	0	2	2	4	1	1	1	2	2	1.8
Mumps	0	0	0	0	6	5	2	0	3	0	3.2
Pertussis	7	0	67	41	40	13	39	31	33	55	31.2
Q fever	0	0	0	0	0	0	0	0	1	0	0.2
Rabies, human	0	1	0	0	0	0	0	1	0	0	0.2
Salmonellosis	190	205	188	173	152	187	165	111	147	123	152.4
Shigellosis	55	62	43	30	27	49	25	26	37	26	32.8
Spotted fever rickettsiosis	0	1	7	8	11	5	9	6	11	20	8.4
Staphylococcus aureus infection, invasive (MRSA)	-	-	-	-	-	12	97	52	51	91	53
Streptococcus disease, Group A, invasive	1	2	0	8	11	13	11	14	15	34	12.8
Streptococcus pneumoniae, invasive	0	0	4	4	8	1	6	3	8	5	5.2
Syphilis, early stage	20	19	15	31	36	33	34	37	39	32	35.8
Tuberculosis	98	85	95	93	120	108	98	86	87	82	99.8
Typhoid fever	0	10	5	10	7	10	8	2	6	4	6.6
Varicella (Chickenpox)	83	32	86	211	301	180	155	64	59	57	151.8
Vibrio infection	2	3	3	3	4	5	4	0	5	6	3.6
West Nile infection	13	3	1	0	3	1	1	1	2	1	1.6
Yersiniosis	0	1	0	1	1	2	2	1	1	0	1.4
Total	**2036**	**1840**	**2119**	**2624**	**2768**	**2739**	**3215**	**3004**	**3082**	**3143**	**2961.6**

* Unless otherwise indicated, all communicable disease data in this report are primary surveillance data from the Fairfax County Health Department and the Virginia Department of Health

[α] 2011 data are provisional

[£] A more restrictive case definition for *Escherichia coli* infection, Shiga toxin-producing was implemented in 2011

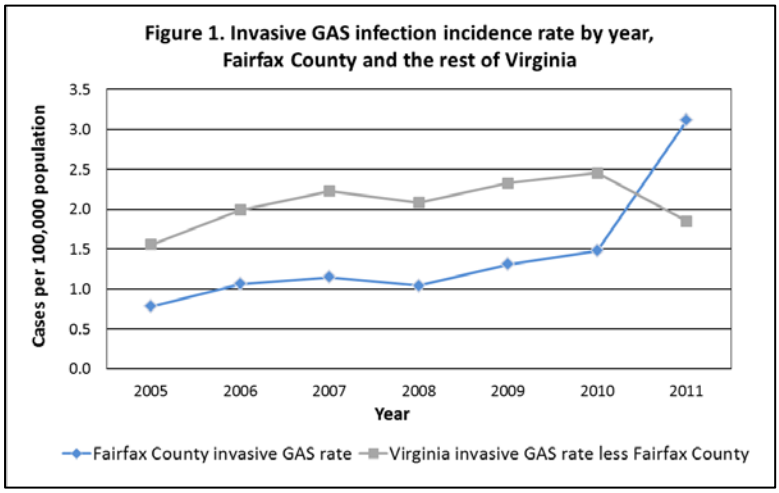
± Includes two case of perinatal Hepatitis B (2009 and 2011)

- Not a reportable illness during the year listed

∞ Occurred during 2010-2011 influenza season

Invasive Group A Streptococcal Disease (*S. pyogenes*)

Streptococcus pyogenes is a ubiquitous pathogen that causes invasive and non-invasive disease and may result in non-suppurative sequelae, including rheumatic heart disease and glomerulonephritis. An estimated 10 million non-invasive infections occur annually in the U.S, primarily manifesting as tonsillitis ("strep throat") and impetigo. For public health purposes, invasive group A streptococcal (iGAS) infections are defined as the isolation of *Streptococcus pyogenes* by culture from a normally sterile site. Invasive infections occur less frequently (an estimated 9,000-11,000 per year in the U.S) but may have severe consequences, including amputation, organ system failure, and death.[1]



- Between 2005 and 2010, the incidence of reported iGAS disease in Fairfax County rose slightly but remained well below the rate for the rest of Virginia (Figure 1). In 2011, the incidence rate for iGAS disease in Fairfax County increased to more than double the rate seen in 2010, with a total of 34 cases reported. Although a similar increase in iGAS disease incidence was noted in one neighboring jurisdiction in 2011, the overall incidence for the rest of the Virginia decreased compared to 2010.
- Among the 34 iGAS cases identified in Fairfax County in 2011, bacteremia was the most common clinical presentation, occurring in 76.5% of cases. Necrotizing fasciitis and streptococcal toxic shock syndrome occurred in 17.6% and 5.9% of cases, respectively (Table 2). Thirty-one cases were hospitalized and five patients died (case-fatality rate of 14.7%).

Table 2. Invasive GAS cases by clinical syndrome, Fairfax County 2011 (n=34)

Syndrome	No. of cases	Percent*
Bacteremia	26	76.5
Cellulitis	14	41.2
Pneumonia	14	41.2
Necrotizing fasciitis	6	17.6
STSS	2	5.9

*Some cases presented with multiple clinical syndromes

- The Virginia state laboratory conducted pulsed field gel electrophoresis (PFGE) on 30 Fairfax County iGAS culture isolates collected in 2011. The most commonly identified PFGE pattern occurred in 40% of these isolates and was indistinguishable from the pattern seen in previously typed emm1/T1 isolates. Emm1/T1 is a commonly circulating GAS strain in the U.S. that is associated with increased virulence.[2]
- The vast majority of 2011 Fairfax County iGAS cases (28 of 34) occurred during the six-month period from January 2011 to June 2011. This represented a 225% increase over the 2005-2010 annual average of 8.6 cases for the same six-month period.
- No common geographical, facility, or familial linkages were identified among Fairfax County cases occurring during this January 2011 to June 2011 time period. All cases appeared to be sporadic and community-acquired.
- Analysis of syndromic surveillance data for the first half of 2011 revealed a seasonal increase in emergency department visits for "strep throat" in Fairfax County that was dramatically larger than that seen in previous years. No similar increase was noted for the rest of Virginia. These data suggests that the surge in iGAS disease in Fairfax County in 2011 reflected a localized increase in the overall circulation of *Streptococcus pyogenes* in the Fairfax community.

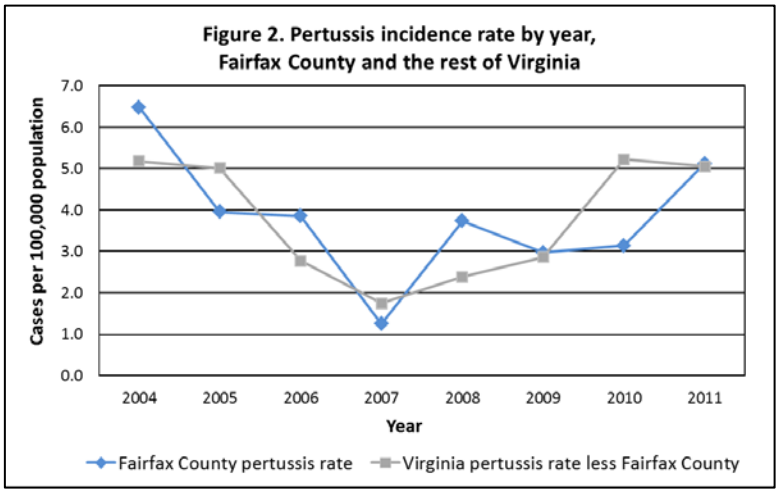
Clinician Pearls

- Ensure that cases of non-invasive GAS infection (*e.g.*, strep throat and impetigo) are appropriately identified and treated to limit the spread of GAS in the community and reduce the risk of non-suppurative sequelae and invasive infections.
- For suspected invasive GAS infections, cultures of blood and focal sites of possible infection are indicated. For suspected necrotizing fasciitis, clinical suspicion should prompt surgical inspection of the deep tissues with gram stain and culture of surgical specimens.
- Most invasive GAS infections are sporadic and the risk of subsequent invasive infection in contacts of a case is extremely low. Routine administration of chemoprophylaxis for household contacts is not recommended. However, *chemoprophylaxis should be considered for ALL household contacts of invasive GAS patients if a high-risk individual resides in the household.*
- Report all iGAS cases to FCHD. FCHD staff can provide further guidance on the appropriate use of iGAS chemoprophylaxis.

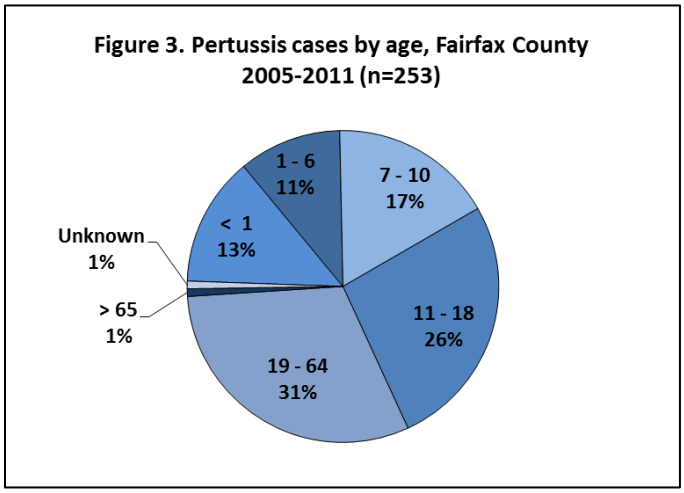
[1] CDC. (2008, April 3). Group A streptococcal (GAS) disease: Technical information. Retrieved from http://www.cdc.gov/ncidod/dbmd/diseaseinfo/groupastreptococcal_t.htm.
[2] O'Loughlin, R.E. et al. The epidemiology of invasive group A streptococcal infection and potential vaccine implications: United States, 2000–2004. Clin Infect Dis. (2007) 45(7): 853-862.

Pertussis

Pertussis remains poorly controlled in the U.S., despite high childhood vaccination coverage and the introduction of Tdap booster vaccine in 2005.[3] Between 2007 and 2010, the U.S. pertussis incidence rate increased steadily, eventually surpassing the highest rate observed during the last cyclical peak of disease incidence in 2004 and 2005.[4] A primary reason for the continued circulation of *Bordetella pertussis* is waning immunity after completion of the childhood vaccination series, which leaves adolescents and adults susceptible. In 2010, U.S. vaccination coverage rates for the Tdap booster vaccine were 68.7% among adolescents and 8.2 % among adults.[5,6] Adolescents and adults accounted for 44% of all reported U.S. 2010 pertussis cases.[4]



- In 2011, a total of 55 cases of pertussis were identified in Fairfax County, equivalent to an incidence rate of 5.1 cases per 100,000 population. This represents a greater than 320% increase since 2007 and approaches the rate observed during the last Fairfax County cyclical peak in 2004 (Figure 2).



- Between 2005 and 2011, infants aged <1 year, who are at greatest risk for severe disease and death, accounted for 13.4% of all reported pertussis cases in Fairfax County. Children 1-10 years of age accounted for an additional 27.7% of cases. The remaining 58.1% of cases occurred among adolescents 11-18 years of age and adults > 18 years of age (Figure 3).
- Three pertussis outbreaks were reported in Fairfax County in 2011, accounting for 22% of pertussis cases. Two of the outbreaks were associated with private residences and one was associated with a middle school. The remainder of the 2011 pertussis cases were sporadic, with no source of infection or epidemiologic linkages identified.

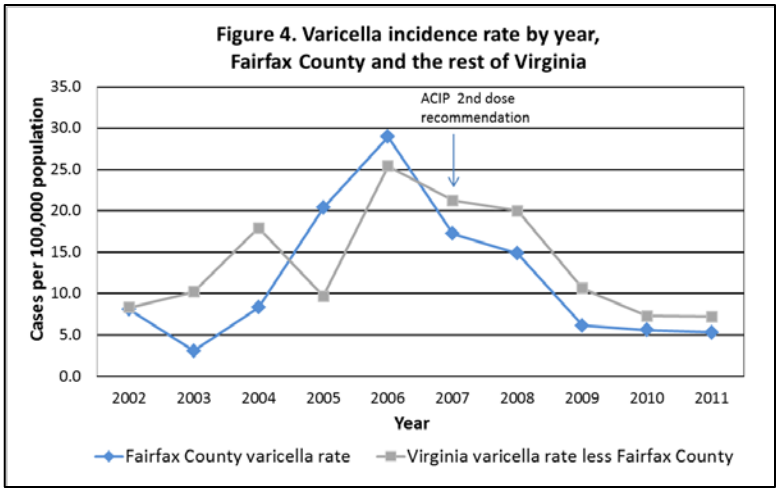
Clinician Pearls

- Protection of susceptible infants is a primary objective of public health pertussis control interventions.
- Culture and/or PCR of nasopharyngeal specimens should be conducted for all suspected pertussis cases within 3 weeks of cough onset. Currently, serologic testing is of limited benefit for pertussis diagnosis.
- Promptly report suspected pertussis cases to FCHD to enable the rapid identification and chemoprophylaxis of exposed contacts.
- To address waning immunity among adolescents and adults, who are an important source of infection for susceptible infants, ACIP has gradually expanded the target groups for Tdap booster vaccine. Current recommendations include the following:
  - Children aged 7 through 10 years who are not fully vaccinated against pertussis should receive a single dose of Tdap. If additional doses of tetanus and diphtheria toxoid-containing vaccines are needed, vaccinate according to ACIP catch-up guidance, with Tdap given as the first dose.
  - Children 11-18 years of age should receive a single dose of vaccine, with preferred administration at 11 -12 years of age. Children 13-18 years of age who have not received Tdap should receive vaccine at the next patient encounter or sooner, if close contact with infants will occur.
  - Adults 19 years of age and older who have not received a dose of Tdap should receive vaccine as soon as feasible. Tdap can be administered regardless of the interval since the last Td booster.
  - Pregnant mothers who have not already received Tdap booster should receive a single Tdap dose during the third or late second trimester. If not administered during pregnancy, Tdap should be given immediately postpartum.
  - Healthcare personnel who have not received Tdap as an adult should receive a single dose, regardless of the interval since the last Td dose.[7]
  - Further detail regarding Tdap recommendations is available at http://www.cdc.gov/vaccines/pubs/ACIP-list.htm#tdap.

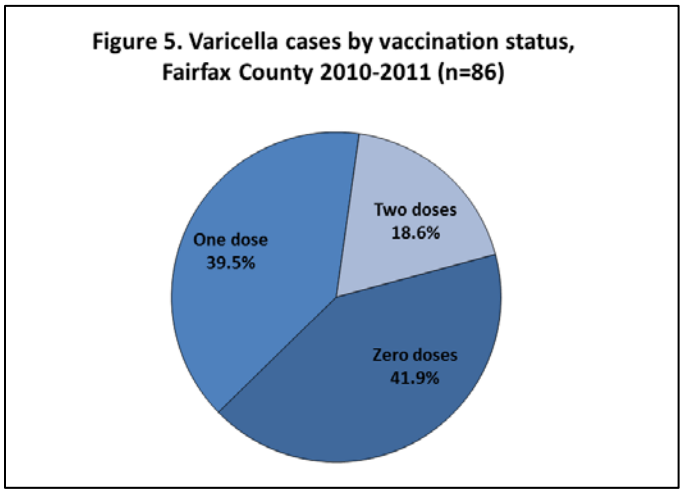
[3] CDC. Updated recommendations for use of Tdap vaccine from the Advisory Committee on Immunization Practices (ACIP), 2010. MMWR 2011; 60; 13-5.
[4] CDC. (2010, September 21). Pertussis: surveillance & reporting. Retrieved from http://www.cdc.gov/pertussis/surv-reporting.html.
[5] CDC. National and State Vaccination Coverage Among Adolescents Aged 13 Through 17 Years --- United States, 2010. MMWR 2011; 60; 1117-1123.
[6] CDC. Adult vaccination coverage – United States, 2010. MMWR 2011; 61; 66-72.
[7] CDC. (2012, March 22). Pertussis: summary of vaccine recommendations for health care professionals. Retrieved from http://www.cdc.gov/vaccines/vpd-vac/pertussis/recs-summary.htm.

Varicella (Chickenpox)

Prior to the introduction of varicella vaccine in 1995, nearly everyone in the U.S. contracted chickenpox, with 90% of cases occurring before 15 years of age. Between 1997 and 2009, national varicella vaccine coverage among children aged 19 to 35 months increased from 27% to 90%, resulting in a greater than 85% decline in varicella incidence, hospitalizations, and deaths.[8] Nationwide, the epidemiology of varicella has changed following the widespread use of vaccine. Older children, adolescents, and adults currently account for a greater proportion of U.S. cases compared to the pre-vaccine era, and the majority of varicella cases now occur among vaccinated persons.[9]



- In Fairfax County, varicella incidence increased during the early part of the last decade, but has declined since the implementation of the two-dose schedule officially recommended by ACIP in 2007 (Figure 4). In 2011, a total of 57 cases of varicella were identified in Fairfax County, representing an 81% decrease in reported cases since 2006.



- Although the majority of 2011 Fairfax County varicella cases were among children and adolescents, approximately 26.3% of the cases occurred in patients 20 years of age or older. As in the rest of the U.S., the incidence of adult varicella cases in Fairfax County has remained relatively constant in recent years. However, the relative proportion of adult varicella cases has increased as disease incidence in younger age groups has declined.

- Among 2010 and 2011 Fairfax County varicella cases for whom vaccination status was known (n=86), 58.1% occurred among vaccinated individuals. Most breakthrough varicella cases occurred in individuals who had received only one dose. However, nearly 1 in 5 of all varicella cases occurred among individuals who had completed the two-dose series (Figure 5).

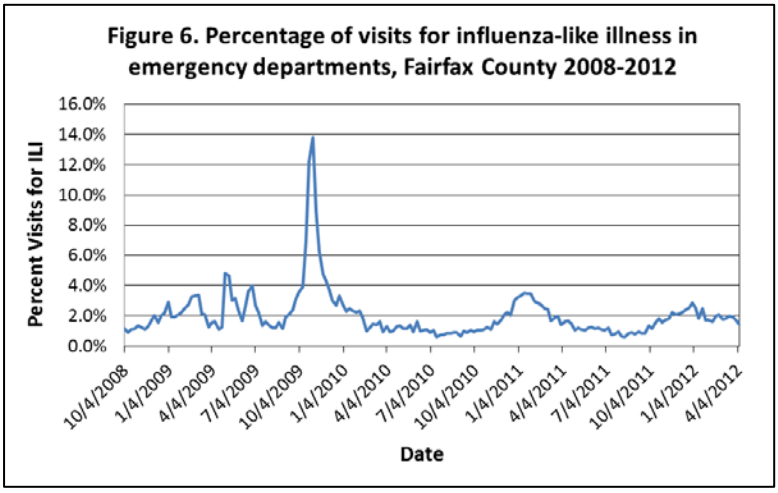
Clinician Pearls

- Breakthrough chickenpox among vaccinated individuals is increasingly common and may have a modified presentation. Rash is typically mild, with <50 lesions and more likely to be predominantly maculopapular than vesicular. Fever is less common and the duration of illness is shorter. Nevertheless, breakthrough varicella is infectious and appropriate infection control recommendations should be implemented.[8] FCHD recommends the following measures for suspected varicella cases:
  - Immediately triage the patient and do not allow the patient to remain in your waiting area;
  - Place a surgical mask on the patient as soon as possible and place the masked patient in a private, negative pressure room if available, or a room with a closed door;
  - Use standard and airborne precautions, if possible;
  - Only health care workers with documented immunity to varicella should work with the patient; and
  - Contact the FCHD Communicable Disease/Epidemiology Unit at 703-246-2433 to report the suspected case and for further infection control and prophylaxis guidance.
- To limit varicella transmission, health-care facilities should document that all healthcare providers have evidence of immunity. Evidence of varicella immunity in healthcare providers requires one of the following:
  - Written documentation of vaccination with 2 doses of varicella vaccine;
  - Laboratory evidence of immunity (positive IgG titer) or laboratory confirmation of disease;
  - Diagnosis or verification of a history of varicella disease by a health-care provider; or
  - Diagnosis or verification of a history of herpes zoster by a health-care provider.[8]

[8] CDC. Immunization of health-care personnel: Recommendations of the ACIP. MMWR 2011; 60 (No. RR-7)
[9] CDC. Manual for the surveillance of vaccine-preventable diseases. Centers for Disease Control and Prevention, Atlanta, GA, 2008.

Influenza

The 2011-2012 U.S. influenza season can be characterized as late and relatively mild.[10] All indicators of influenza activity, morbidity, and mortality remained low compared with recent influenza seasons. U.S. virologic surveillance indicated that seasonal influenza A (H3) viruses predominated, with co-circulation of 2009 H1N1, and influenza B viruses. The influenza A virus isolates tested were nearly uniformly consistent with those included in the influenza vaccine for two consecutive seasons. Circulating influenza B strains were less closely matched to the vaccine strain.[11]



- In Fairfax County and Virginia, influenza surveillance is conducted each October through May. Unlike surveillance for other communicable diseases, which relies heavily on the reporting of individual cases, influenza surveillance assesses disease activity at the community level. Multiple influenza surveillance approaches are utilized, including emergency department syndromic surveillance, sentinel provider virologic surveillance, and pediatric death reporting. Local data indicate that influenza epidemiology in Fairfax County and Virginia during the 2011-12 influenza season mirrored that seen at the national level.

Virginia Influenza Activity Levels

During influenza season, the Virginia Department of Health categorizes **State-wide** influenza activity using the following CDC definitions:

No Activity: No laboratory-confirmed cases of influenza and no reported increase in the number of cases of ILI.

Sporadic: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak reported, but no increase in cases of ILI.

Local: Outbreak of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.

Regional: Outbreaks of influenza or increases in ILI and recent laboratory-confirmed influenza in at least 2 but less than half the regions of the state.

Widespread: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state.

Virginia influenza activity levels and other influenza surveillance information are available online at http://www.vdh.virginia.gov/Epidemiology/Surveillance/Influenza/WklyPhysReport.pdf

- During the 2011-2012 season, influenza activity was categorized as widespread in Virginia for only three weeks, beginning in the week of February 25, 2012. By comparison, Virginia reported widespread activity for 14 weeks during the 2010-2011 influenza season.
- Emergency department utilization for influenza-like illness in Fairfax County remained low for much of the 2011-2012 influenza season, with peak activity near the national influenza baseline level of 2.4% (Figure 6).
- Virginia virologic surveillance, which includes samples submitted by four Fairfax County sentinel providers, identified co-circulation of influenza A (H3), 2009 H1N1, and influenza B viruses.
- No influenza-associated pediatric deaths were reported in Fairfax County during the 2011-2012 influenza season.
- Six influenza-like illness outbreaks were reported in Fairfax County during the 2011-2012 season. Four outbreaks were associated with schools and two with long-term care facilities. Influenza specimens were collected in 4 of these outbreaks. The causative agent was determined to be influenza type A in all instances.

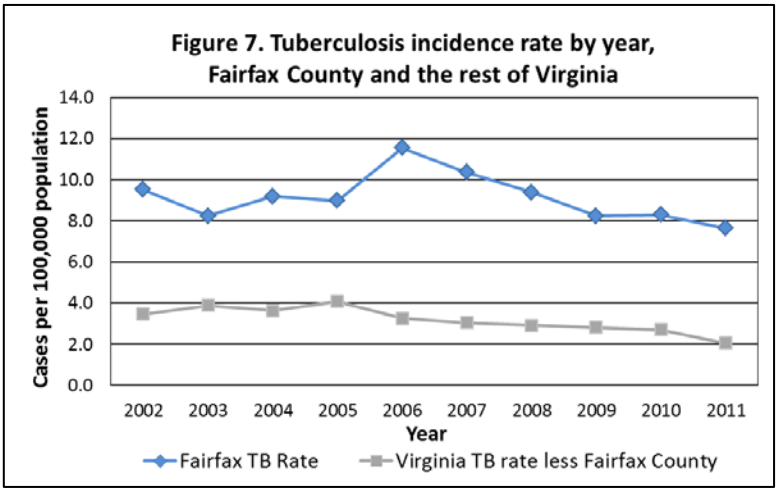
Clinician Pearls

- The Advisory Committee on Immunization Practices recommends routine influenza vaccination for all persons aged 6 months and older. Vaccination efforts should continue throughout the influenza season as the duration of the influenza season varies and disease activity might not peak until February or March.
- All healthcare facilities should have a comprehensive, up-to-date healthcare worker immunization policy for influenza and all other vaccine preventable diseases. This policy should encompass all employees and volunteers who are at risk of exposure to or possible transmission of vaccine preventable diseases. To assist in ensuring appropriate documentation of immunity, a one-page summary of the Advisory Committee on Immunization Practices recommendations for healthcare worker immunization is available at http://www.immunize.org/catg.d/p2017.pdf.
- FCHD provides free influenza vaccine to all Health Department clients through our five district offices. Vaccine is also available to the general public for a nominal fee. Clients may call 703-246-2411 to confirm service hours and locations.

[10] CDC. (2012, May 4). Situation update: Summary of weekly flu view. Retrieved from http://www.cdc.gov/flu/weekly/summary.htm.
[11] CDC. (2012, May 4). Fluview: 2011-2012 influenza season week 17 ending April 28, 2012. Retrieved from http://www.cdc.gov/flu/weekly/.

Tuberculosis

Over the last two decades, the number of tuberculosis (TB) cases reported in the U.S. has decreased every year, with an average annual rate of decline of 4.7%.[12] In 2011, the reported incidence of TB in the U.S. was 3.4 cases per 100,000 population, the lowest rate recorded since national reporting began in 1953. This downward trend in TB incidence has been driven primarily by a decrease in cases among U.S.-born persons, while the number of cases among foreign-born persons has remained relatively stable. In 2011, approximately 62.5% of TB cases identified in the U.S. were among foreign-born individuals.[13]



- In Fairfax County, the TB incidence rate has remained relatively stable over the last decade and has been consistently much higher than the incidence rate for the rest of Virginia (Figure 7). In 2011, the Fairfax County TB incidence rate of 7.6 cases per 100,000 was 3.8 times higher than the rate for the rest of Virginia (2.0 per 100,000), and more than double the U.S. rate (3.4 per 100,000).

Table 3. Foreign-born tuberculosis cases by country of origin, Fairfax County 2005-2011

Country	No. of cases	Percent
India	77	12.6%
Vietnam	75	12.3%
Ethiopia	52	8.5%
South Korea	44	7.2%
Philippines	37	6.1%
Bolivia	36	5.9%
El Salvador	36	5.9%
Remaining 52 countries	253	41.5%

- Fairfax County is an immigrant gateway and TB incidence remains high due to the continued predominance of foreign-born individuals among local TB cases. Between 2005 and 2011, approximately 90% of incident TB cases identified in Fairfax County were among foreign-born persons. Forty-seven percent of these infected individuals had resided in the U.S. for 5 years or less at the time of diagnosis. The most common countries of origin for foreign-born cases identified between 2005 and 2011 were India (12.6%) and Vietnam (12.3%) (Table 3).
- In 2011, 14.7% of Fairfax County TB cases exhibited isoniazid resistance, and one exhibited multi-drug resistance (MDR). Between 2005 and 2011, a total of 8 cases of MDR TB (1.2% of all cases) were identified, a percentage comparable to that seen at the national level.
- Eighteen cases of TB/HIV co-infection were reported between 2005 and 2010 in Fairfax County. No cases of TB/HIV co-infection were identified in 2011.

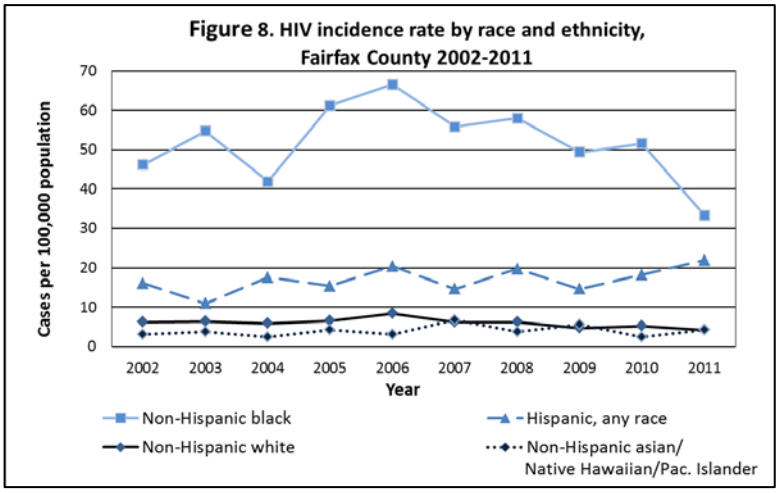
Clinician Pearls

- Consider TB in the differential diagnosis for foreign-born individuals presenting with compatible signs and symptoms (*e.g.*, cough, fever, night sweats, or weight loss).
- In addition to the Tuberculin Skin Test (TST), interferon-gamma release assays (IGRAs) are also available to aid in the diagnosis of TB:
  - Quantiferon TB Gold in Tube (QFT-GIT) is available through private laboratories; and
  - T-Spot.*TB* is available through the manufacturer, Oxford Immunotec.
- When using IGRAs, remember the following:
  - A negative IGRA is similar to a negative TST, it does not rule out latent or active tuberculosis infection; and
  - TST remains the test of choice for children less than 5 years of age as there has not been enough experience with IGRAs in this age group.
- The new *Core Curriculum on Tuberculosis: What the Clinician Should Know* is available online from the CDC at http://www.cdc.gov/tb/education/corecurr/index.htm. Physicians can earn up to 6.5 AMA free PRA Category I CME credits for completing this curriculum.
- Report all suspected tuberculosis cases to FCHD, regardless of location of infection or treatment status. FCHD will conduct contact investigations to identify exposed individuals and provide appropriate follow-up.

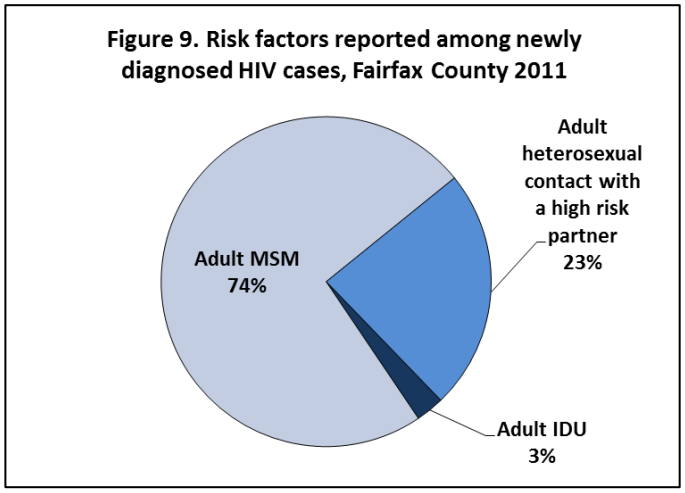
[12] CDC. Reported tuberculosis in the United States, 2010. Atlanta, GA: U.S. Department of Health and Human Services, CDC, October 2011.
[13] CDC. Trends in tuberculosis -- United States, 2011. MMWR 2011; 61(11): 181-185.

HIV/AIDS

Annual HIV incidence rates in the U.S. have remained relatively stable in recent years, averaging 16.1 cases per 100,000 population between 2007 and 2010. However, as treatment modalities and access to services have improved, there has been an increase in the number of individuals living with HIV and AIDS. At the end of 2009, the estimated U.S. prevalence rate of diagnosed HIV infection was 268.6 per 100,000 population, a 5.1% increase compared to 2007. Specific demographic groups continue to be disproportionately affected by HIV and AIDS at the national level, with non-Hispanic blacks facing the highest burden of disease, followed by Hispanics. By risk group, men who have sex with men (MSM) are the most severely affected.[14]



- HIV incidence in Fairfax County increased during the early part of the last decade, peaking at 149 cases in 2006. Between 2007 and 2011, incidence has gradually decreased. Approximately 75% of all incident Fairfax County HIV cases identified between 2002 and 2011 were male and the most common age at diagnosis was 30-39 years.
- In 2011, 95 newly-diagnosed HIV cases were identified in Fairfax County, equivalent to a rate of 8.8 per 100,000 population. This compares favorably with the incidence rate for the rest of Virginia of 13.4 per 100,000 population.
- Although lower than in recent years, the 2011 HIV incidence rate for non-Hispanic blacks remained nearly 8 times greater than that seen among white residents. Hispanics were also disproportionately affected, with an incidence rate greater than 5 times that seen among whites (Figure 8).



- In 2011, three-quarters of new HIV diagnoses in Fairfax County were among MSM. Other high-risk groups included adults reporting heterosexual contact with a high-risk partner and intravenous drug users (Figure 9).
- At the end of 2011, 2,356 Fairfax County residents were living with HIV or AIDS, equivalent to a prevalence rate of 219.3 per 100,000 population. This represents a 1.2% increase since 2010, but remains lower than the 2011 prevalence rate for the rest of Virginia (315.1 per 100,000 population). More than 41% the Fairfax residents living with HIV or AIDS at the end of 2011 were non-Hispanic blacks, and nearly 15% were Hispanics. Non-Hispanic blacks and Hispanics account for 8.9% and 15.6% of the Fairfax County population, respectively.[15] Almost half (49.4%) of all individuals living with HIV or AIDS were MSM. Over 1,200 met the surveillance criteria for AIDS.

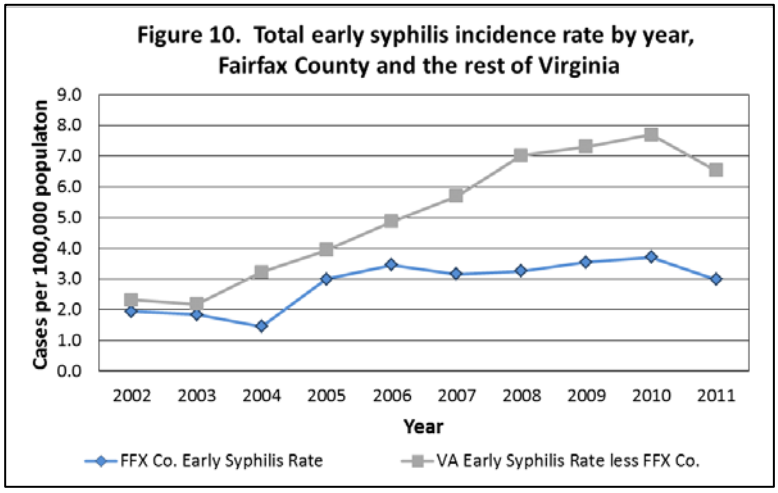
Clinician Pearls

- The CDC recommends routine HIV screening for all patients aged 13-64 years in all health care settings. Screening should be performed regardless of whether the patient is known or suspected to have behavioral risks for infection.
- All pregnant women should be tested for HIV infection as early during pregnancy as possible. A second test during the third trimester, preferably at <36 weeks' gestation, should be considered for all pregnant women and is recommended for women known to be at high risk for acquiring HIV.[16]
- In 2008, Virginia adopted an "opt-out" screening process for HIV testing. Under this process, consent for HIV testing is inferred unless the patient verbally declines. A medical care provider must inform the patient that the test is planned, provide information about the test, and advise the patient of their right to decline the test. A specific written consent form is not necessary; general consent for medical care is sufficient. If a patient declines an HIV test, clinicians must document the declination in the patient's medical record.
- Free, confidential HIV testing is available at each of the five FCHD district offices. Harm reduction counseling before and after testing is included. Clients may call 703-246-2411 to confirm service hours and locations.

[14] CDC. HIV Surveillance Report, *2010*; vol. 22. http://www.cdc.gov/hiv/topics/surveillance/resources/reports/. Published March 2012.
[15] U. S. Census Bureau. (2010). *American FactFinder: Fairfax County, VA.* Retrieved March 10, 2012 http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.
[16] CDC. Sexually Transmitted Diseases Treatment Guidelines, 2010. MMWR 2010; 59 (No. RR-12).

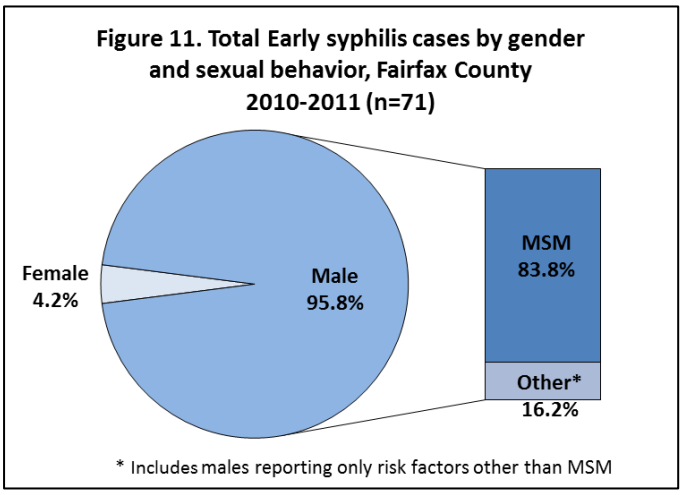
Syphilis

The U.S. incidence rate for reported primary and secondary syphilis declined nearly 90% during the 1990s, reaching a nadir in 2000. The incidence rate then increased annually between 2001 and 2009 before decreasing again in 2010. This recent rise in syphilis incidence was driven by increased rates of infection among men, particularly men who have sex with men (MSM). Overall, the U.S. incidence rate for males increased from 3.0 cases per 100,000 population in 2001 to 7.9 cases per 100,000 population in 2010 (male to female ratio of 7.2:1 in 2010). The estimated proportion of U.S. primary and secondary syphilis cases attributable to MSM increased from 7% in 2000 to 67% in 2010.[17]



- In Fairfax County, the incidence rate for total early syphilis, which includes primary, secondary, and early latent syphilis, doubled between 2002 and 2010, with a subsequent decrease in 2011 (Figure 10). Although the Fairfax County syphilis rate has remained well below the rate for the rest of Virginia since 2004, neighboring Northern Virginia jurisdictions have seen recent increases in syphilis incidence rates among the MSM population.

- In 2011, 32 early syphilis cases were identified in Fairfax County, equivalent to an incidence rate of 3.0 per 100,000 population. In keeping with national trends, the vast majority (95.8%) of 2010 and 2011 Fairfax County cases were among men, 83.8% of which were MSM (Figure 11).



- In 2011, the Fairfax County early syphilis incidence rate for non-Hispanic blacks (7.5 per 100,000 population) was more than double that seen among white residents (3.0 per 100,000 population). The incidence rate among Hispanics (3.6 per 100,000 population) was slightly elevated compared to that seen among whites.
- Nearly 90% of all Fairfax County early syphilis cases identified in 2010 and 2011 occurred among individuals 20-49 years of age. The most common age at diagnosis was 20-29 years, with 38.9% of cases occurring among individuals in this age group.
- Among Fairfax County early syphilis cases identified in 2010 and 2011 for which information on HIV status was available, 50.6% were co-infected with HIV.

Clinician Pearls

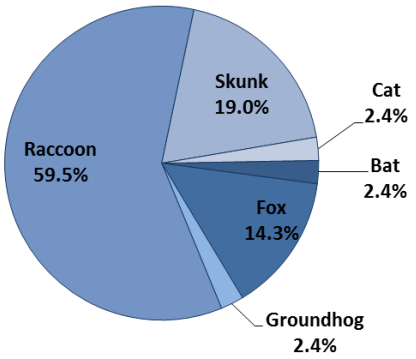
- CDC continues to recommend the traditional syphilis screening algorithm using a nontreponemal test (*e.g.*, RPR or VDRL), with reactive nontreponemal tests confirmed by treponemal testing. Recently, some diagnostic laboratories have adopted a reverse screening sequence in which a treponemal enzyme immunoassay (EIA) or chemiluminescence immunoassay (CIA) is performed first, followed by testing with a non-treponemal test. If reverse sequence screening is used, CDC recommends that reactive sera by a treponemal test should be tested reflexively with a quantitative nontreponemal test. When test results are discordant (i.e., reactive EIA/CIA and nonreactive RPR/VDRL), the specimen should be tested reflexively using the TP-PA test as a confirmatory treponemal test.[18] Further information on the use and interpretation of reverse sequence screening is available at http://www.cdc.gov/std/syphilis/treatment.htm.
- CDC recommends that all persons who have syphilis be tested for HIV infection. Given the high prevalence of HIV in the National Capital Region and the high rate of HIV co-infection among Fairfax County syphilis cases, individuals who have primary syphilis should be retested for HIV three months after the first HIV test result was negative.[18]
- Promptly report suspected syphilis cases to FCHD. For all early syphilis cases, FCHD will conduct partner notification and facilitate testing and/or treatment for exposed individuals.

[17] CDC. Sexually transmitted disease surveillance 2010. Atlanta: U.S. Department of Health and Human Services; 2011.
[18] CDC. Sexually transmitted diseases treatment guidelines, 2010. MMWR 2010; 59 (No. RR-12).

Rabies

Rabies epidemiology in the U.S. has shifted over the last half-century due to the elimination of canine rabies and the development of modern rabies prophylaxis regimens. Currently, the vast majority of animal rabies cases occur in wildlife, with wild animals accounting for greater than 92% of all reported rabid animals in the U.S. in 2010.[19] Human rabies infection is now rare, with an average of only two to three U.S. cases identified each year.[20]

Figure 12. Positive rabies lab results by species, Fairfax County 2011 (n=42)



- Rabies is endemic among wild mammals in Fairfax County and rabid animals are identified throughout the jurisdiction each year. In 2011, the FCHD Public Health Laboratory conducted direct fluorescent antibody testing for rabies virus on 419 animals submitted from within Fairfax County. Forty-two (10%) of the animals tested positive for rabies.
- Raccoons accounted for the majority of 2011 positive rabies test results (59.5%), followed by skunks (19.0%) and foxes (14.3%) (Figure 12). These terrestrial carnivores are considered to be the highest risk species for rabies in the County. Of the 138 bats tested in 2011, one was positive for rabies virus. Although rabies was not identified among household pets in 2011, one feral cat tested positive for rabies, resulting in the need for post-exposure prophylaxis in six individuals.

- No human rabies cases were identified in Fairfax County in 2011. The most recent human case, a fatal infection with internationally-acquired canine rabies, occurred in 2009.
- In 2011, approximately 1,400 human exposures to animals (primarily bites) were reported to the Fairfax County Animal Services Division (ASD). For more than 95% of these exposures, ASD and FCHD were able to locate the offending animal for quarantine or testing, eliminating the need for rabies post-exposure prophylaxis (PEP).
- FCHD surveillance identified a total of 206 Fairfax County residents who initiated rabies PEP in 2011. Sixty-five (31.6%) did not have a rabies exposure history that met the Advisory Committee on Immunization Practices' criteria and should not have received PEP. PEP was incorrectly administered in 96 (46.6%) of these 206 patients. Failure to infiltrate the wound with rabies immune globulin (HRIG) was the most common PEP administration error.

Bat Exposures

Bat-related rabies virus variants have been responsible for 73% of the human rabies case identified in the U.S. since 1995.[20] Wounds from bats can be very minor and potential bat exposures require thorough evaluation and present unique challenges.[21]

Whenever possible, bats involved in potential human exposures should be safely collected and submitted to FCHD for rabies testing. The overwhelming majority (>95%) of bats submitted to the FCHD Laboratory test negative for rabies. A negative test result eliminates the need for post-exposure prophylaxis (PEP).

FCHD staff are available to assist with exposure assessment and to provide PEP guidance when the exposing bat tests positive or cannot be located for laboratory testing.

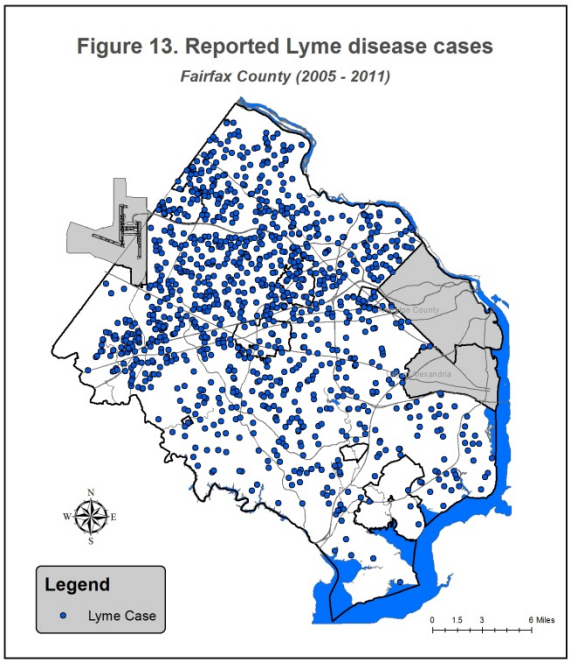
Clinician Pearls

- Accurate rabies exposure assessment and correct administration of post-exposure prophylaxis (PEP) are critical for preventing disease and ensuring that vaccine remains available for truly exposed individuals.
- Only a small percentage of individuals exposed to a potentially rabid animal will require PEP. If the offending animal can be located, PEP administration should be delayed pending the outcome of confinement or testing.
- All exposures to potentially rabid animals must be reported immediately to the Fairfax County Animal Services Division (ASD) at 703-691-2131 (Fax: 703-830-7806). ASD staff can assist with locating the exposing animal.
- FCHD rabies staff members are available for consultation regarding rabies exposure assessment and PEP administration at 703-246-2433 (business hours) or 571-274-2296 (evenings and weekends).
  - An online course is available to provide clinicians with further information about rabies exposure assessment and PEP administration at http://ideha.dhmh.maryland.gov/training/SitePages/rabies.aspx. CME credits are available.
- PEP administration should be reported to FCHD using a Virginia Department of Health Confidential Morbidity Report (Epi-1 form) or by calling 703-246-2433.

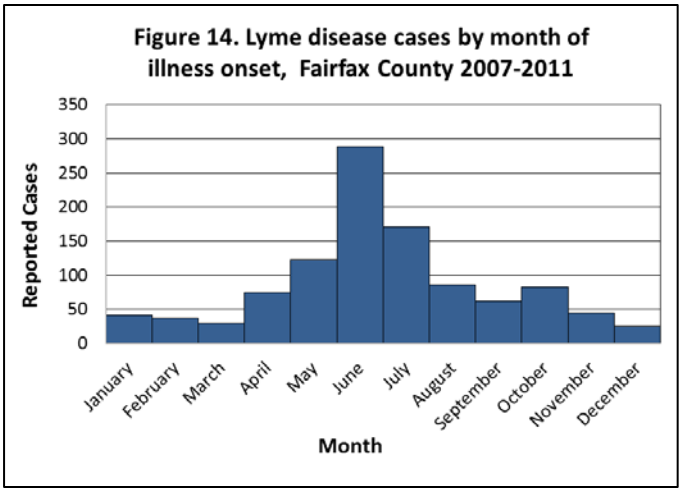
[19] Blanton, J.D., Palmer, D., Dyer, J. & Rupprecht, (2011). Rabies surveillance in the United States during 2010. Journal of the American Veterinary Medical Association, 239(6), 773-783.
[20] CDC. (2011, November 15) . Rabies Surveillance Data in the United States. Retrieved from http://www.cdc.gov/rabies/location/usa/surveillance/index.html.
[21] CDC. Human Rabies Prevention - United States, 2008: Recommendations of the Advisory Committee on Immunization Practices. MMWR 2008; 57 (No. RR-3), 1-27.

Lyme and other Tickborne Diseases

Tick-borne pathogens infect tens of thousands of U.S. residents each year. The epidemiologies of specific tickborne diseases reflect the geographic distribution and seasonal activity of the transmitting tick species.[22] In Virginia, the most commonly reported tickborne illness is Lyme disease, followed distantly by spotted fever group rickettsiosis, ehrlichiosis, and anaplasmosis. Over the last decade, the incidence of each of these tick-borne diseases has increased steadily in Virginia and the U.S.



- Between 2000 and 2009, Fairfax County experienced a 13-fold increase in the number of reported cases of Lyme disease, from 19 cases in 2000 to 260 cases in 2009. The number of reported cases has decreased in each of the last two years, with 246 and 149 cases reported in 2010 and 2011, respectively. Lyme disease cases are reported throughout the County each year and all residents should be considered at risk of disease (Figure 13).
- The incidence of spotted-fever group rickettsiosis (including Rocky Mountain spotted fever) in Fairfax County has increased over the past decade, but has remained consistently lower than the rate for the rest of Virginia. In 2011, 20 cases of spotted fever group rickettsiosis were reported to FCHD, representing an 82% increase in cases compared to 2010. A similar increase was seen at the State level. No spotted fever group rickettsiosis deaths were reported in Fairfax County in 2011.



- The incidence of ehrlichiosis and anaplasmosis in Fairfax County has fluctuated over the last decade but remained near or below the rate for the rest of Virginia. In 2011, a combined total of 17 cases of ehrlichiosis and anaplasmosis were reported to FCHD (12 ehrlichiosis and 5 anaplasmosis), representing a 142% increase in the burden of these two diseases compared to 2010. Despite this increase, Fairfax County incidence remained below that seen at the State level.
- Lyme disease incidence is highest during the early summer months when the number and activity of nymphal *Ixodes scapularis* ticks, the primary vector for human disease, is highest (Figure 14). The seasonal distribution for cases of spotted fever group rickettsiosis, ehrlichiosis and anaplasmosis mimic the pattern seen for Lyme disease.

Clinician Pearls

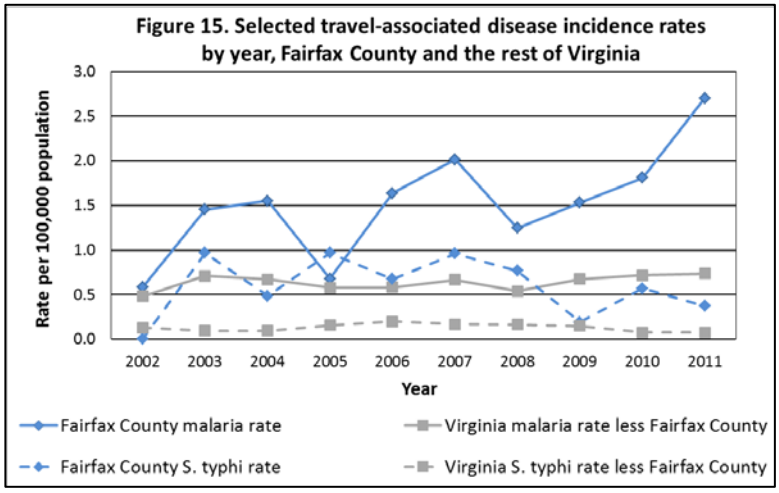
- Avoiding tick bites and promptly removing attached ticks remain the best disease prevention strategies. When prevention fails, early recognition and prompt treatment of patients with tickborne diseases can help avoid potentially severe complications.
- Maintain a high index of suspicion for Lyme and other tickborne diseases in all patients presenting with clinically compatible signs and symptoms. Note that a significant proportion of patients with Lyme disease never develop an erythema migrans rash. Laboratory testing can be an important aid in diagnosing a tickborne disease. However, Lyme disease patients tested within the first few weeks of illness may not have developed antibodies and may test negative.
- All suspected Lyme disease cases should be reported to FCHD. For surveillance purposes, the CDC Lyme Disease case definition requires clinical and laboratory evidence of infection (i.e. 2-tier testing with EIA and Westernblot).
  - Necessary clinical evidence includes Lyme-associated signs and symptoms (e.g. erythema migrans rash, arthritis, or Bell's palsy) and date of symptom onset.
  - Necessary laboratory evidence includes positive or equivocal results from ELISA (or IFA) serology and positive Western Blot IgM serology if the blood was drawn within 30 days of onset OR positive Western Blot IgG serology alone if blood was drawn more than 30 days after onset.
  - Note that the CDC case criteria are for surveillance purposes and not necessarily for clinical diagnosis.
- FCHD provides tick identification services to residents and healthcare providers. For information regarding the submission of a tick, please visit http://www.fairfaxcounty.gov/hd/westnile/tick-id.htm or call 703-246-2300.

[22] CDC. Diagnosis and management of tickborne rickettsial diseases: Rocky Mountain spotted fever, ehrlichiosis, and anaplasmosis – United States. MMWR 2006; 55 (No. RR-4).

Travel-Associated Diseases

In 2009, U.S. residents made more than 61 million trips with at least one night spent outside the United States, an approximately 5% increase since 1999. Travel-related health problems occur commonly, particularly among individuals traveling to developing nations. Between 22% and 64% of these travelers self-report health issues, mostly consisting of mild, self-limited illnesses such as diarrhea, respiratory infections, and skin disorders. A much smaller percentage contract more serious illnesses.[23]

Fairfax County is an immigrant gateway with a demographically diverse population. As a result, the burden of many travel-associated illnesses among Fairfax residents is higher than for the rest of Virginia.



- The incidence of internationally-imported malaria among Fairfax residents has increased over the past decade and is now substantially higher than that seen for the rest of Virginia (Figure 15). In 2011, 29 malaria cases were identified among County residents, representing a more than 380% increase in cases since 2002. Among 2009-2011 Fairfax County malaria cases for which information on the infecting species was available (n=43), 83.7% were caused by *Plasmodium falciparum*, 14.0% by *P. vivax*, and 2.3% by *P. malariae*. Among cases for which information on chemoprophylaxis was available (n=55), only 20% of infected individuals reported taking any malaria chemoprophylaxis prior to or during travel. The most commonly reported travel regions for 2009-2011 malaria cases included West Africa (58.7%), South Asia (15.9%), and East Africa (7.9%).

- Between 2002 and 2011, 62 typhoid fever (*Salmonella typhi*) cases were identified among Fairfax County residents, accounting for 42.2% of all Virginia cases. Four of these Fairfax County cases occurred in 2011. Among 2009-2011 Fairfax County cases for which information on vaccination status was available (n=10), only one reported receiving typhoid immunization within the five years prior to onset of illness. Between 2009 and 2011, 10 infected individuals reported information on travel; nine reported travel to South Asia and one reported no recent international travel.

- Between 2007 and 2011, 20 cases of internationally-imported dengue fever have been identified among Fairfax County residents, accounting for 38.5% of all Virginia cases. Eight of these Fairfax County cases occurred in 2011. The most commonly reported travel regions for 2009-2011 Fairfax County dengue fever cases included the Caribbean (50.0%), Mexico and Central America (20%), and South Asia (10%).

- Seven measles cases were identified in Virginia in 2011, all of which occurred among returning international travelers or their contacts. None of the cases occurred among Fairfax residents; however, one infected individual sought healthcare in the County during the infectious period. Although measles was suspected during this clinical encounter, no initial report was made to public health. After a significant delay, the case was identified through laboratory reporting and FCHD initiated a contact investigation at the affected facility. Of the 118 patients and staff members exposed to measles, only one individual had no evidence of immunity and exclusion in the home was recommended. Immunoprophylaxis was no longer indicated for this non-immune individual due to the delay in reporting.

Clinician Pearls

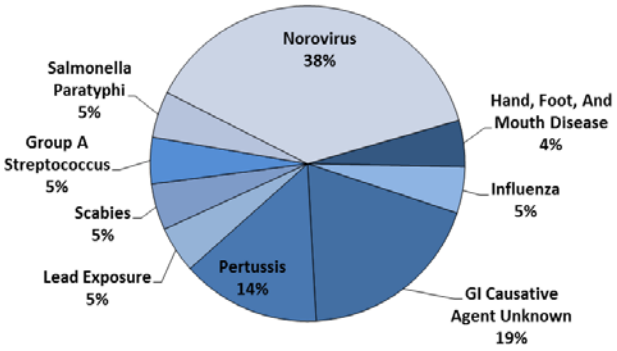
- Incorporate pre-travel care into your practice by routinely asking patients if they are planning to travel internationally. Immigrants returning home may be at increased risk for travel-associated illness and should receive special consideration.[23]
- Ensure appropriate pre-travel consultation either through direct provision or by referring to a travel medicine specialist. Consultation should include immunizations, chemoprophylactic medications, and behavioral preventive recommendations. For clinicians providing pre-travel care, detailed guidance is available from the CDC at http://wwwnc.cdc.gov/travel/. FCHD also provides international travel consultation. Clients may call 703-246-7100 to confirm service hours and locations.
- Ensure that all patients traveling internationally are fully-vaccinated against measles. Adults should have 2 doses of measles vaccine prior to travel. Children traveling internationally can be given measles vaccine as early as 6 months of age. These children should then receive measles vaccine at 12-15 months of age. Children who are older than 12 months of age and have already received one dose of vaccine should receive a second dose prior to travel. The interval between any two doses of measles-containing vaccine should be 28 days or more.
- Remember to obtain a travel history when assessing patients for infectious diseases and notify FCHD of any suspected, reportable travel-associated illnesses. *Note that immediate reporting is required for suspected cases of measles, typhoid fever and paratyphoid fever given the need for prompt public health intervention*.

[23] CDC. CDC Health Information for International Travel 2012. New York: Oxford University Press; 2012.

Outbreak Summary, 2011

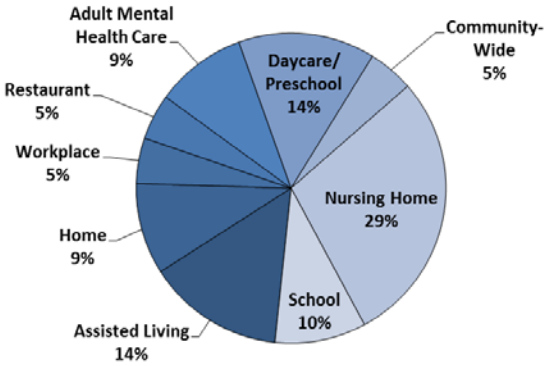
For public health purposes, an outbreak is defined as more cases of a particular disease than would normally be expected, either in a specific setting (*e.g.*, school, hospital, business, or other facility) or in the community as a whole. For rare diseases or diseases that require significant public health response (*e.g.*, measles, anthrax, smallpox, or diphtheria), one case constitutes an outbreak. Outbreaks are not limited to diseases on the reportable disease list and suspected outbreaks of any disease should be immediately reported to FCHD. For each reported outbreak, the CD/Epi Unit: 1) verifies the existence of the outbreak; 2) conducts an investigation to determine the causative agent; 3) facilitates specimen collection and laboratory testing; and 4) recommends and/or implements appropriate infection control measures to limit the spread of disease. When necessary, enhanced or active surveillance methods are utilized.

Figure 16. Outbreak etiology, Fairfax County 2011



- In 2011, FCHD investigated 21 outbreaks of illness that originated within Fairfax County and participated in numerous outbreak investigations that originated in nearby jurisdictions. The Health Department also conducted over 60 significant contact investigations related to individual cases of disease (*e.g.*, meningococcal disease, pertussis, and typhoid fever).
- As in previous years, non-foodborne gastroenteritis outbreaks in long-term care facilities were the most commonly reported outbreak by type and location in Fairfax County.
- Of the 2011 outbreaks originating in Fairfax County, norovirus was identified as the causative agent in 38.1% and pertussis in 14.0% (Figure 16). The most common outbreak investigation settings were long-term care facilities (42.9%) and daycares/preschools (14.3%) (Figure 17).

Figure 17. Outbreak location, Fairfax County 2011



Norovirus Outbreaks

- Of the 8 norovirus outbreaks investigated in 2011, 50% occurred in long-term care facilities, and the remainder occurred in schools and other community settings.
- The median number of cases associated with each outbreak was 28 (range 7 – 288 cases) and a total of 458 infected individuals were identified.
- The average length of these outbreaks was approximately 19 days (range 10 – 37 days).
- Infected individuals typically exhibited short durations of illness (24 – 48 hours), incubation periods of 12 – 60 hours, and high incidence of vomiting (>50 percent of infected individuals).

Clinician Pearls

- Immediately report suspected outbreaks of any disease to FCHD.
- To help limit the spread of norovirus, the agent most commonly associated with disease outbreaks in Fairfax County, clinicians should recommend the following for all patients:
  - Frequent and proper hand washing with soap and water. Alcohol-based hand sanitizers (≥ 62% ethanol) may be helpful as an adjunct method of hand hygiene;
  - Avoidance of ill individuals and self-exclusion at home and away from others for at least 24 hours after the resolution of diarrhea and vomiting (48 hours for healthcare professionals);
  - Frequent and thorough cleaning using a chlorine bleach solution, or other commercial product registered with EPA as effective against norovirus, can also help interrupt the disease transmission cycle during norovirus outbreaks.
- FCHD has educational materials available on proper food handling and handwashing practices, which are keys to preventing communicable disease outbreaks, at http://www.fairfaxcounty.gov/hd/food/foodtrain.htm. Posters are also available as part of a broader handwashing campaign for posting in physician offices, restaurants, and public bathrooms at http://www.fairfaxcounty.gov/hd/handwashing/.

Fairfax County Health Department
Communicable Disease/Epidemiology Unit

Contact Information

Communicable Disease/Epidemiology Unit
(for all communicable disease reports & guidance during business hours)
703.246.2433 • TTY 711
FAX 703.385.3681

Communicable Disease Hotline
Health care providers should call 703-246-2433 to obtain the Communicable Disease Hotline number for reporting on weekends and evenings

Fairfax County Public Health Laboratory
703.246.3218 • TTY 711
FAX 703.591.3641

Rabies Program
(for all rabies reports & guidance during business hours)
703.246.2433 • TTY 711
FAX 703.385.3681

Rabies Hotline
Health care providers should call 703-246-2433 to obtain the Communicable Disease Hotline number for reporting on weekends and evenings

FCHD Communicable Disease Services

Communicable Disease Surveillance and Investigation	• FCHD conducts communicable disease surveillance and investigation with the goal of reducing morbidity and mortality within the community. When cases or outbreaks of disease are reported or identified, FCHD staff: o Provide infection control guidance to clinicians, facilities, and infected individuals; o Identify exposed individuals and provide guidance regarding disease prevention, including recommendations for the administration of prophylaxis (if appropriate).
Rabies	• Rabies program staff provide guidance regarding rabies exposure assessment and PEP administration 24 hours a day. • FCHD Laboratory provides animal rabies testing for human or domestic animal exposures.
Tuberculosis	• Tuberculosis program staff provide clinical guidance regarding TB diagnosis and treatment. • Free laboratory testing, chest x-rays, medications, and case management services are provided for all Fairfax County residents.
HIV/AIDS	• Free HIV testing (including anonymous option) and HIV harm-reduction counseling is available through FCHD walk-in clinics and STD clinics. Clients may visit http://www.fairfaxcounty.gov/hd/hiv-testing-aids/ or call 703-246-2411 for service hours. • HIV/AIDS program staff coordinate HIV/AIDS treatment, including treatment obtained through the AIDS Drug Assistance Program.
STD	• STD testing and treatment are available free of charge at each of the five FCHD district offices. Clients may visit http://www.fairfaxcounty.gov/hd/std-clinic-sched.htm or call 703-246-2411 to confirm service hours. • STD program staff provide partner notification services for reported STD cases.
Laboratory	• FCHD laboratory conducts testing in support of communicable disease investigations including testing for TB, HIV, STDs, enteric pathogens, and rabies virus.
Outreach	• FCHD provides educational outreach regarding communicable disease prevention and control throughout the Fairfax Community.

Communicable Disease Reporting

The Code of Virginia requires that suspected or confirmed cases of the following diseases be reported by Fairfax County physicians and other specified individuals. Conditions identified in red require immediate communication to the Fairfax County Health Department by the most rapid means available upon suspicion or confirmation. Other conditions should be reported within three days of suspected or confirmed diagnosis.

To report, call the Communicable Disease/Epidemiology Unit at **703-246-2433**. Reports may also be faxed to **703-386-3681** using a Virginia Department of Health Confidential Morbidity Report (Epi-1 Form), available on line at www.fairfaxcounty.gov/hd/comdis/.

Virginia Reportable Disease List

Available at www.vdh.virginia.gov/Epidemiology/documents/pdf/Reportable_Disease_List.pdf.

- Acquired immunodeficiency syndrome (AIDS)
- ♿ Amebiasis
- I ♿ **ANTHRAX**
- ♿ Arboviral infections (e.g., dengue, EEE, LAC, SLE, WNV)
- ♿ **BOTULISM**
- I ♿ **BRUCELLOSIS**
- ♿ Campylobacteriosis
- ♿ Chancroid
- ♿ Chickenpox (Varicella)
- ♿ *Chlamydia trachomatis* infection
- I ♿ **CHOLERA**
- ♿ Creutzfeldt-Jakob disease if <55 years of age
- ♿ Cryptosporidiosis
- ♿ Cyclosporiasis
- I ♿ **DIPHTHERIA**
- **DISEASE CAUSED BY AN AGENT THAT MAY HAVE BEEN USED AS A WEAPON**
- ♿ Ehrlichiosis/Anaplasmosis
- ^ I ♿ *Escherichia coli* infection, Shiga toxin-producing
- ♿ Giardiasis
- ♿ Gonorrhea
- Granuloma inguinale
- I ♿ ***HAEMOPHILUS INFLUENZAE* INFECTION, INVASIVE**
- ♿ Hantavirus pulmonary syndrome
- Hemolytic uremic syndrome (HUS)
- ♿ **HEPATITIS A**
- ♿ Hepatitis B (acute and chronic)
- ♿ Hepatitis C (acute and chronic)
- Hepatitis, other acute viral
- ♿ Human immunodeficiency virus (HIV) infection
- # ♿ Influenza
  - I (report **INFLUENZA A, NOVEL VIRUS** immediately)
- **INFLUENZA-ASSOCIATED DEATHS IN CHILDREN <18 YEARS OF AGE**
- ♿ Lead, elevated blood levels
- ♿ Legionellosis
- Leprosy (Hansen disease)
- I ♿ Listeriosis
- ♿ Lyme disease
- Lymphogranuloma venereum
- ♿ Malaria
- ♿ **MEASLES (RUBEOLA)**
- I ♿ **MENINGOCOCCAL DISEASE**
- ♿ **MONKEYPOX**
- ♿ Mumps
- ♿ **MYCOBACTERIAL DISEASES (INCLUDING AFB),**
  - I **(IDENTIFICATION OF ORGANISM) AND DRUG SUSCEPTIBILITY**
- Ophthalmia neonatorum
- **OUTBREAKS, ALL** (including but not limited to foodborne, healthcare-associated, occupational, toxic substance-related, and waterborne)
- I ♿ **PERTUSSIS**
- I ♿ **PLAGUE**
- I ♿ **POLIOVIRUS INFECTION, INCLUDING POLIOMYELITIS**
- ♿ **PSITTACOSIS**
- I ♿ **Q FEVER**
- ♿ **RABIES, HUMAN AND ANIMAL**
- Rabies treatment, post-exposure
- ♿ **RUBELLA, INCLUDING CONGENITAL RUBELLA SYNDROME**
- I ♿ Salmonellosis
- ♿ **SEVERE ACUTE RESPIRATORY SYNDROME (SARS)**
- I ♿ Shigellosis
- ♿ **SMALLPOX (VARIOLA)**
- ♿ Spotted fever rickettsiosis
- ♿ *Staphylococcus aureus* infection, (invasive methicillin-resistant) and
  - I (vancomycin-intermediate or vancomycin-resistant)
- I ♿ Streptococcal disease, Group A, invasive or toxic shock
- ♿ *Streptococcus pneumoniae* infection, invasive, in children <5 years of age
- ♿ Syphilis (report **PRIMARY** and **SECONDARY** immediately)
- Tetanus
- ♿ Toxic substance-related illness
- ♿ Trichinosis (Trichinellosis)
- I ♿ **TUBERCULOSIS, ACTIVE DISEASE**
- Tuberculosis infection in children <4 years of age
- ♿ **TULAREMIA**
- I ♿ **TYPHOID/PARATYPHOID FEVER**
- **UNUSUAL OCCURRENCE OF DISEASE OF PUBLIC HEALTH CONCERN**
- ♿ **VACCINIA, DISEASE OR ADVERSE EVENT**
- ♿ ***VIBRIO* INFECTION**
- ♿ **VIRAL HEMORRHAGIC FEVER**
- ♿ **YELLOW FEVER**
- I ♿ Yersiniosis

♿ These conditions are reportable by directors of laboratories. In addition, these and all other conditions except methicillin-resistant *Staphylococcus aureus* (MRSA), invasive and mycobacterial diseases are reportable by physicians and directors of medical care facilities. Laboratory reports may be by computer-generated printout, Epi-1 form, CDC surveillance form, or upon agreement with VDH, by means of secure electronic transmission.

I A laboratory identifying evidence of these conditions shall notify the local health department of the positive culture and submit the initial isolate to the Virginia Division of Consolidated Laboratory Services (DCLS) or, for tuberculosis, to another lab designated by the Board.

^ Laboratories that use a Shiga toxin EIA methodology without a simultaneous culture should forward all positive stool specimens or positive broth cultures to DCLS for confirmation and further characterization.

Physicians and directors of medical care facilities should report influenza by number of cases only (report total number per week and by type of influenza, if known); however, individual cases of influenza A novel virus should be reported immediately by rapid means.

Note: 1. Central line-associated bloodstream infections in adult intensive care units are reportable. Contact the VDH Healthcare-Associated Infections Program at (804) 864-8141 or see 12VAC5-90-370 for more information.

2. Cancers are also reportable. Contact the VDH Virginia Cancer Registry at (804) 864-7866 or see 12VAC5-90-150-180 for more information.

Fairfax County Health Department
Communicable Disease/Epidemiology Unit
10777 Main Street, Suite 211
Fairfax, VA 22030

Fairfax County Health Department
2011 Communicable Disease Summary

A Fairfax County, Va., publication. May 2012.
To request additional copies, call the
Fairfax County Health Department
Communicable Disease/Epidemiology Unit
703.246.2433, TTY 711.