Alexandria Health Department
Communicable Disease Division

Report to Clinicians
July 2012

Please consider the environment before printing this report. This report contains hyperlinks to enable easy navigation of the report in electronic format.

Health Department Overview

Among the many services available at the Alexandria Health Department are:

- Immunization
- Environmental health services
- Family planning services
- Well child pediatric services
- Confidential diagnosis, treatment, and counseling on sexually transmitted infections (STI)
- Tuberculosis (TB) testing and diagnostic chest x-rays
- Confidential HIV testing and early intervention services
- Adult and child dental services
- Nutritional education and food vouchers for women, infants, and children (WIC)
- Processing of birth and death certificates
- Communicable disease surveillance and control

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More information on services available at the health department is available at http://alexandriava.gov/health.

Our mission is to protect and to promote health and well-being in our communities.

Communicable Disease Division

The Communicable Disease Division promptly investigates diseases reportable by state law to control and to prevent illness in the community. The VDH reportable disease list is available on the following page AND online (Virginia Reportable Disease List) [1].

Contact Information for Reportable Diseases

Conditions listed in **black** can be submitted within three days of suspected or confirmed diagnosis on an Epi-1 form[2], by mail or fax to:

Alexandria Health Department
Communicable Disease Division
4480 King Street
Alexandria, VA 22302
FAX: 703.746.4953

Conditions listed in **RED** must be reported immediately by the most rapid means available. The Communicable Disease Division can be reached:

Monday – Friday (8:00 a.m. – 5:00 p.m)

Office phone: 703.746.4951
FAX: 703.746.4953

Evenings and Weekends (24/7):

Cell phone: 571.259.8549

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1.Virginia Reportable Disease List. Available at http://www.vdh.virginia.gov/epidemiology/documents/pdf/reportable_disease_list.pdf
2. Epi-1 Form. Available at http://www.vdh.virginia.gov/Epidemiology/documents/pdf/Epi1.pdf.

Virginia Reportable Disease List

Reporting of the following diseases is required by state law (§32.1-36 and §32.1-37 of the *Code of Virginia* and 12VAC5-90-80 and 12VAC5-90-90 of the Board of Health *Regulations for Disease Reporting and Control,* http://www.vdh.virginia.gov/epidemiology/regulations.htm). Report all conditions when suspected or confirmed to your local health department within three days on an Epi-1 form, except those listed in **RED** must be reported immediately by the most rapid means available.

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

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.

Introduction

The Alexandria Health Department Communicable Disease Division Report to Clinicians summarizes cases of reportable diseases reported to the health department in calendar year 2011. For this report, sexually transmitted infections (STI) & tuberculosis (TB) are presented separately from other communicable diseases.

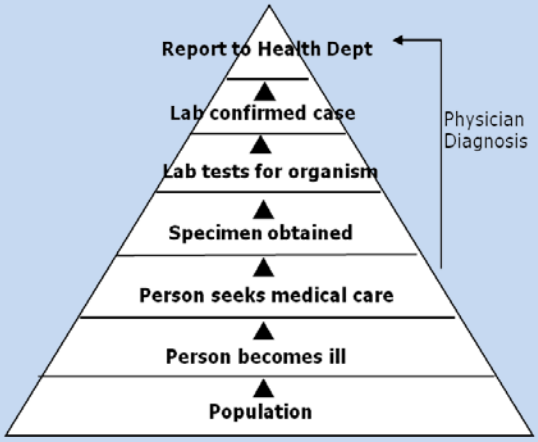

Figure 1.This triangle represents prevalent illness. The passive surveillance process only captures a proportion of prevalent illness. Passive surveillance is the basis for AHD surveillance data. AHD relies on physicians and laboratories to report cases to improve public health functions such as disease control and prevention. Adapted from FoodNet Working Group [4].

Case Definitions and Disease Surveillance

Public health surveillance case definitions are published by the Centers for Disease Control and Prevention (CDC) each year to standardize reporting of diseases across the country (2012 CDC Case Definitions)[3]. This ensures that disease-specific morbidity is comparable between different states and jurisdictions. As needed, case definitions are updated as public health learns more about the clinical features and/or adapts to diagnostic tests for reportable conditions. Official statistics released by CDC and the Virginia Department of Health (VDH) include only reports that meet CDC case definitions. Changes in reported disease burden may reflect either a true change in disease incidence or may reflect changes in disease reporting that are independent of the true disease incidence, such as: 1) change in surveillance case definitions, 2) change in reporting practices by healthcare providers, or 3) change in preferred diagnostic method. Additionally, the reported disease burden is an estimate of the true incidence of disease since not all persons that are ill seek medical care and not all cases are reported to the health department (Figure 1). It is important to consider these reporting limitations before interpreting the data. It should be noted that public health case definitions are used to standardize disease reporting and should not be used to diagnose patients.

Caution is urged in interpreting rates. Localities with small populations may have only a few reported cases of disease resulting in relatively high disease rates. Both the number of cases and incidence rates should be weighed when considering morbidity by city or county.

Data Source

Unless otherwise noted, data are AHD primary surveillance data available in the Virginia Electronic Disease Surveillance System (VEDSS) as of February 29, 2012. All 2011 data are considered provisional.

Acknowledgements

We would like to thank all community partners including healthcare providers, infection control practitioners, laboratorians, and public safety personnel who report cases to the Alexandria Health Department. Also we wish to acknowledge the hard work and dedication of the AHD employees who investigate and control communicable diseases, STI, and TB in Alexandria.

This report was prepared by AHD Epidemiologist Kelly Hay, MPH and approved by AHD Health Director Stephen A. Haering, MD, MPH; any errors are solely their responsibility. Feedback is welcome: kelly.hay@vhd.virginia.gov or stephen.haering@vdh.virginia.gov.

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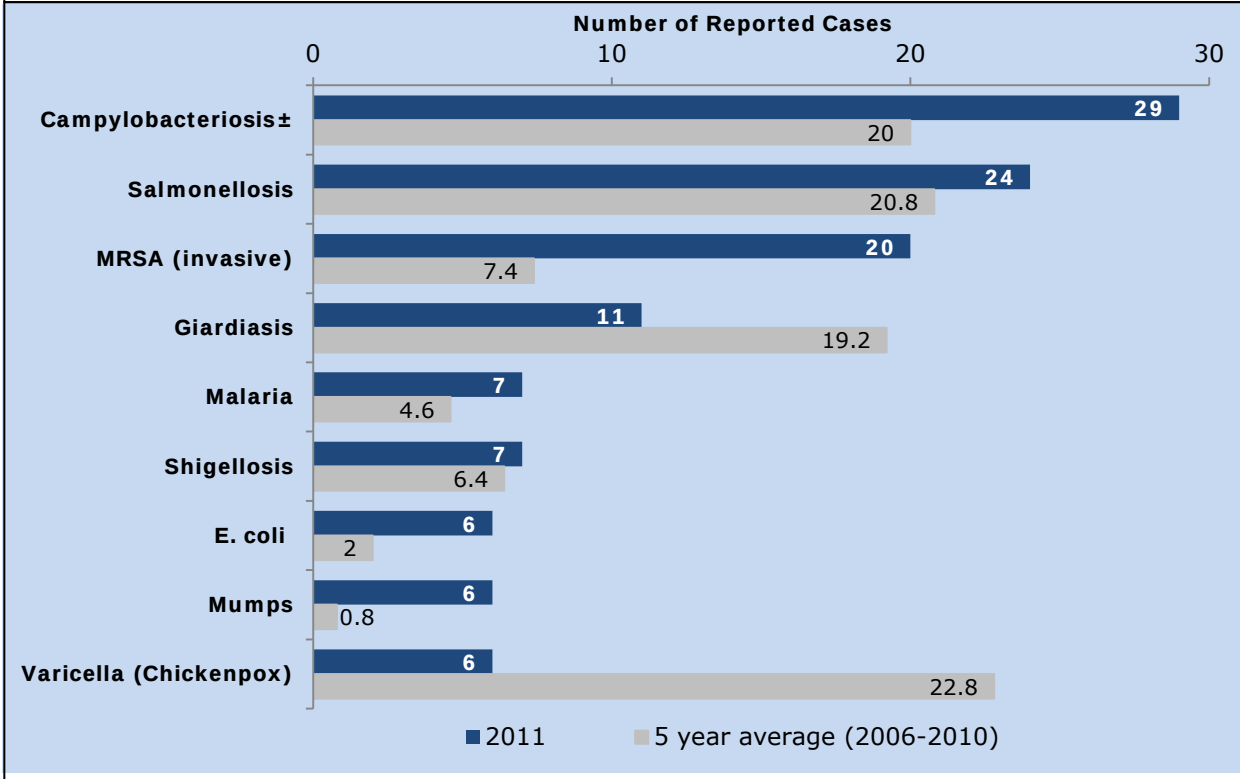
3. 2012 Nationally Notifiable Diseases and Conditions. Available at wwwn.cdc.gov/nndss/document/2012_Case%20Definitions.pdf
4. Foodborne Diseases Active Surveillance Network (FoodNet). Available at wwwnc.cdc.gov/eid/article/3/4/97-0428-f1.htm.

Communicable Disease Summary

In 2011, a total of 122 cases of communicable diseases (excluding STI &TB) were investigated at the Alexandria Health Department. A summary of the top communicable diseases in Alexandria for 2011 is presented in Figure 2. In addition to these reports, the Alexandria Health Department also investigated 5 outbreaks. AHD is available 24/7 to investigate reportable diseases and suspected outbreaks.

Figure 2. Top 9 Reportable Diseases in Alexandria, VA (2011)[α]



α Excludes STI and TB reports
± Count includes suspect cases (clinically compatible illness with positive antigen test)

Figure 2 highlights the following communicable disease topics:

- **Foodborne Illness** (page 5)
- **Vaccine Preventable Disease** (page 6)

Please contact the Communicable Disease Division if you are interested in more information.

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Foodborne Illness

Contaminated food consumed in the United States causes an estimated 48 million illnesses, 128,000 hospitalizations, and 3,000 deaths annually (Complete 2011 Estimates) [5]. Because foodborne illness is preventable and costly in terms of both people's health and associated healthcare costs, reducing foodborne illness was identified as a goal of Healthy People 2020 (Healthy People: Food Safety and Foodborne Illness) [6]. Pathogens transmitted commonly through food include: *Campylobacter*, *Cryptosporidium*, *Cyclospora*, *Listeria*, Norovirus, *Salmonella*, Shiga toxin-producing *Escherichia coli* (STEC) O157 and non-O157, *Shigella*, *Vibrio*, and *Yersinia* [5,7].

What does the health department do with reported cases?

The health department investigates laboratory confirmed foodborne illness cases and suspected foodborne outbreaks. During investigations, the health department provides prevention education, identifies potential sources of infection, and recommends control measures to prevent further disease transmission within the community.

The Communicable Disease Division and Environmental Health Division work together to ensure that facilities, including restaurants, are inspected when indicated during an investigation.

The Division of Consolidated Laboratory Services (DCLS – the state laboratory) conducts additional testing for the following pathogens commonly transmitted through food:

- *Escherichia coli (E. coli)*
- *Salmonella*
- *Shigella*
- *Listeria*
- *Yersinia*

For the pathogens listed above, positive stool specimens are sent to DCLS by laboratories for confirmatory testing and DNA fingerprinting. This allows for public health to identify common source outbreaks, such as the Listeriosis outbreak associated with cantaloupes in 2011 (CDC Listeriosis Outbreak Highlights) [8]. In addition, AHD may submit specimens for norovirus testing during outbreak investigations, whenever epidemiologically indicated.

What can healthcare providers do to help?

- Because many pathogens cause diarrhea and related symptoms, conducting confirmatory laboratory tests, whenever possible, will help the health department in these control and prevention efforts.
- For patients infected with shiga-toxin producing *E. coli* (STEC), taking antibiotics may increase the risk of hemolytic uremic syndrome (HUS) [9]. Antidiarrheal agents may also increase the risk of HUS. In general, antibiotics are not recommended to empirically treat patients with acute bloody diarrhea[10].

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5. CDC Estimates of Foodborne Illness in the U.S. Available at www.cdc.gov/foodborneburden/2011-foodborne-estimates.html%20
6. Healthy People 2020 Topics &Objectives. Available at www.healthypeople.gov/2020/topicsobjectives2020/
7. FoodNet – Foodborne Diseases Active Surveillance Network. Available at www.cdc.gov/foodnet/
8. Multistate Outbreak of Listeriosis. Available at www.cdc.gov/listeria/outbreaks/cantaloupes-jensen-farms/index.html
9. E.coli O157:H7 and other STEC. Available at www.cdc.gov/nczved/divisions/dfbmd/diseases/ecoli_o157h7/
10. Practice Guidelines for the Management of Infectious Diarrhea. Available at www.idsociety.org/uploadedFiles/IDSA/Guidelines-Patient_Care/PDF_Library/Diarrhea.pdf

Vaccine-Preventable Diseases

In the U.S., overall vaccine-preventable diseases (VPD) are at or near record lows due to vaccine recommendations and policies and the subsequent implementation of those recommendations and policies (More Info on Vaccines and VPD)[11]. Maintaining high levels of vaccine coverage among the population is the only way to maintain low levels of morbidity and to ensure that those most vulnerable to the severe effects of vaccine-preventable diseases are protected. Despite the overall lower trends, the U.S has experienced an increase in the number of both pertussis and measles cases in recent years.

It is important that children and adults are current with all vaccines; however, this section will focus on the pertussis-containing vaccines DTaP and Tdap as recent national and local trends suggest an increase in pertussis.

Why has pertussis (whooping cough) been in the media?

Pertussis is a highly contagious bacterial infection with secondary attack rates among susceptible household contacts exceeding 80%. The illness can be severe in young children and infants and can result in hospitalization and even death. In 2010, the incidence of pertussis, both nationally and in Virginia, surpassed rates not seen since 2005. Peak incidence of pertussis occurs in 3 to 5 year cycles, highlighting the importance of ensuring that the population maintains a high-level of protection against pertussis through vaccinations (More Info on Pertussis) [12]. Healthcare providers in Alexandria are crucial partners in helping maintain low levels of pertussis in our community.

How can healthcare providers protect our community from pertussis?

1. **Ensure that you and ALL staff are immunized** with Tdap
   - Regardless of age, healthcare personnel (HCP) should receive a single dose of Tdap as soon as feasible if they have not previously received Tdap regardless of the time since their most recent Td vaccination. Tdap is not licensed for multiple administrations; therefore, after receipt of Tdap, HCP should receive Td for future booster vaccination against tetanus and diphtheria.
   - Immunization recommendations for healthcare personnel are available from the Advisory Committee on Immunization Practices (ACIP)[13]
2. **Report suspected cases** of pertussis to the Alexandria Health Department as soon as the case is suspected. DO NOT WAIT FOR LABORATORY CONFIRMATION before reporting. This allows AHD to follow-up on cases to identify high-risk contacts, to advise affected patients and families about disease control measures, and to recommend prophylaxis to those that need it to protect them from the disease.
3. **Promote vaccination** by ensuring that patients are fully vaccinated against pertussis according to the Advisory Committee on Immunization Practices (ACIP) guidelines (ACIP Summary of Recommendations, ACIP Complete Recommendations)[14,15].
   - Recommend that adults, especially those that have or are expecting to have contact with infants, receive one Tdap booster. By immunizing those that have close contact with infants, the infants, who are at the greatest risk for complications and death, will be protected from disease; this concept is called 'cocooning'.
   - Recommend that all children obtain the recommended doses of DTaP.

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11. Vaccines and Preventable Diseases. Available at www.cdc.gov/vaccines/vpd-vac/default.htm.
12. Pertussis (Whooping Cough). Available at www.cdc.gov/pertussis/index.html
13. Immunization of Healthcare Personnel. Available at www.cdc.gov/mmwr/preview/mmwrhtml/rr6007a1.htm?s_cid=rr6007a1_e
14. Pertussis: Summary of Vaccine Recommendations. Available at www.cdc.gov/vaccines/vpd-vac/pertussis/recs-summary.htm
15. ACIP Recommendations. Available at www.cdc.gov/vaccines/pubs/ACIP-list.htm#vacc.

Sexually Transmitted Infections & Tuberculosis

In 2011, the rates of HIV, STI, and TB were higher in Alexandria compared to Northern Virginia (including Alexandria). The Virginia Department of Health Division of Disease Prevention (DDP) publishes annual reports on HIV/AIDS, Sexually Transmitted Infections, and Tuberculosis. These reports summarize demographic and risk factor data and can be accessed online (DDP Reports) [16]. A summary of 2011 data are presented in Figure 3.

Figure 3. Rate of Sexually Transmitted Infections and Tuberculosis- Alexandria, Northern Virginia and Virginia (2011)

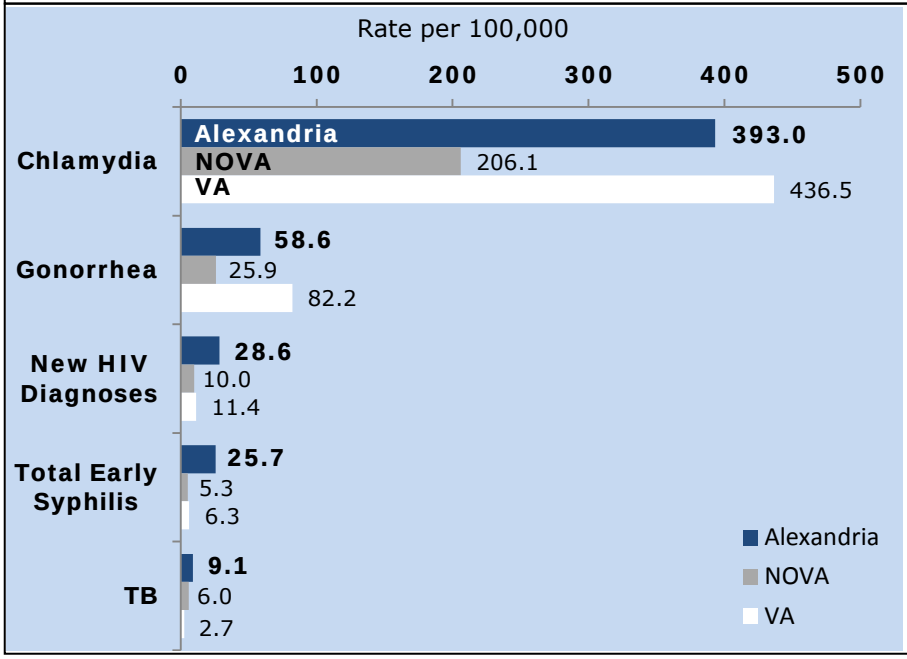

Figure 3 Notes:
Northern Virginia (**NOVA**) includes Alexandria City, Arlington County, Fairfax County, Fairfax City, Falls Church City, Loudoun County, Prince William County, Manassas City, and Manassas Park City.

Total early syphilis (TES) includes diagnoses of primary, secondary, and early latent syphilis.

Alexandria 2011 Case Counts: Chlamydia (550), Gonorrhea (82), HIV diagnoses (40), TES (36), TB (13)

Data from the Division of Disease Prevention (HIV and STI Data and TB Data)[16,17]. Data for 2011 is preliminary and may be incomplete due to reporting delays.

What STI and TB services are available at AHD?

STI Clinics – 703.746.4849
Free confidential information, diagnosis, and treatment of sexually transmitted infections (STI) is available at 4480 King Street on Wednesdays (4:00 p.m. to 6:00 p.m). No appointment is necessary.

HIV Testing and Counseling- 703.746.4839
HIV Rapid Testing is available on Wednesdays (1:00 p.m. to 3:00 p.m.) and Thursdays (5:00 p.m. to 6:30 p.m).

Rainbow Tuesdays Clinic - 703.746.4986
Free walk-in Chlamydia, Gonorrhea and Syphilis screening, HIV Rapid Test counseling and testing, and Hepatitis A/B (Twinrix) immunizations. The Rainbow Tuesdays Clinic is held at 4480 King Street on the 2nd and 4th Tuesday of each month from 5:00 p.m. to 6:30 p.m. This clinic is sponsored and designed by individuals and organizations in a community partnership to meet the special needs of Gay, Bisexual and Transgender persons.

TB Clinic – 703.746.4960
The TB Clinic provides information, evaluation, treatment, and preventive treatment programs for tuberculosis. Walk-in TB skin testing and TB risk assessment is available **FOR ADULTS ONLY** (19 years and older) at 4480 King Street on Tuesdays (8:00 am to 11:00am).

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16. HIV/AIDS, Sexually Transmitted Disease (STD), and Tuberculosis Data and Statistics. Available at www.vdh.state.va.us/epidemiology/DiseasePrevention/DAta/
17. TB Surveillance Reports. Available at www.vdh.state.va.us/epidemiology/DiseasePrevention/Programs/Tuberculosis/EpidemiologyandSurveillance.htm