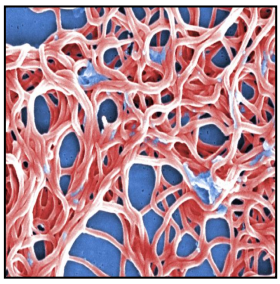
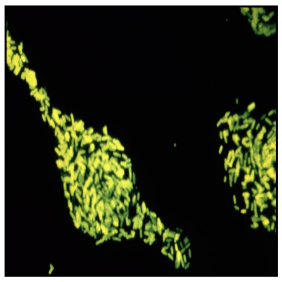
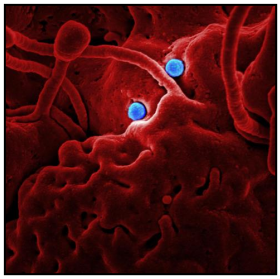
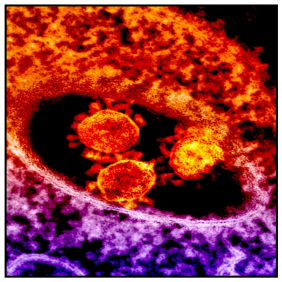
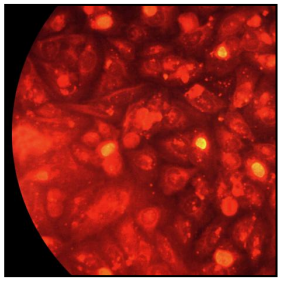
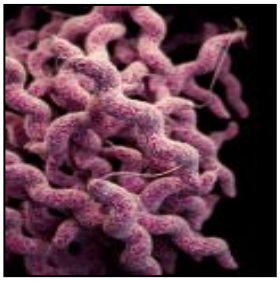
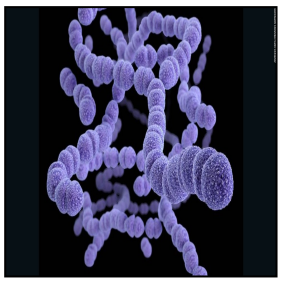
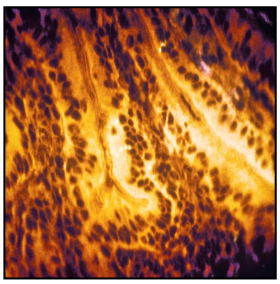
ALEXANDRIA HEALTH DEPARTMENT

Epidemiology

REPORT TO CLINICIANS 2015

Healthy People, Healthier Communities

Introduction

This Alexandria Health Department (AHD) Report to Clinicians summarizes cases of reportable disease investigated by the health department in calendar year 2014. For this report, sexually transmitted infections (STI) and tuberculosis (TB) are presented separately from other reportable diseases.

Following the reportable disease summaries, several public health "spotlights" are presented. In this section, timely and important public health topics are introduced. These spotlights are meant to increase awareness of each topic area and to provide clinicians with credible resources.

Case Definitions

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 (CDC Case Definitions). This ensures that disease-specific morbidity is comparable between different states and jurisdictions. Public health case definitions are used to standardize disease reporting and should not be used to diagnose patients.

Disease Surveillance

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. AHD relies on physicians and laboratories to report cases to improve public health functions such as disease control and prevention.

Caution is urged in interpreting rates. Localities with small populations, such as Alexandria, 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 presented here are AHD primary surveillance data available in the Virginia Electronic Disease Surveillance System (VEDSS) as of July 31, 2015. All 2014 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, HIV, 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, FACPM; any errors are solely their responsibility. Feedback is welcome: kelly.hay@vdh.virginia.gov or stephen.haering@vdh.virginia.gov.

Online Resources for Health Care Professionals

- **Urgent updates from the State Health Commissioner**, training opportunities, best practices, and meaningful use info: vdh.state.va.us/clinicians/
- **Alexandria Health Department**: alexandriava.gov/health
  - Information for healthcare providers practicing in the City of Alexandria: alexandriava.gov/65006

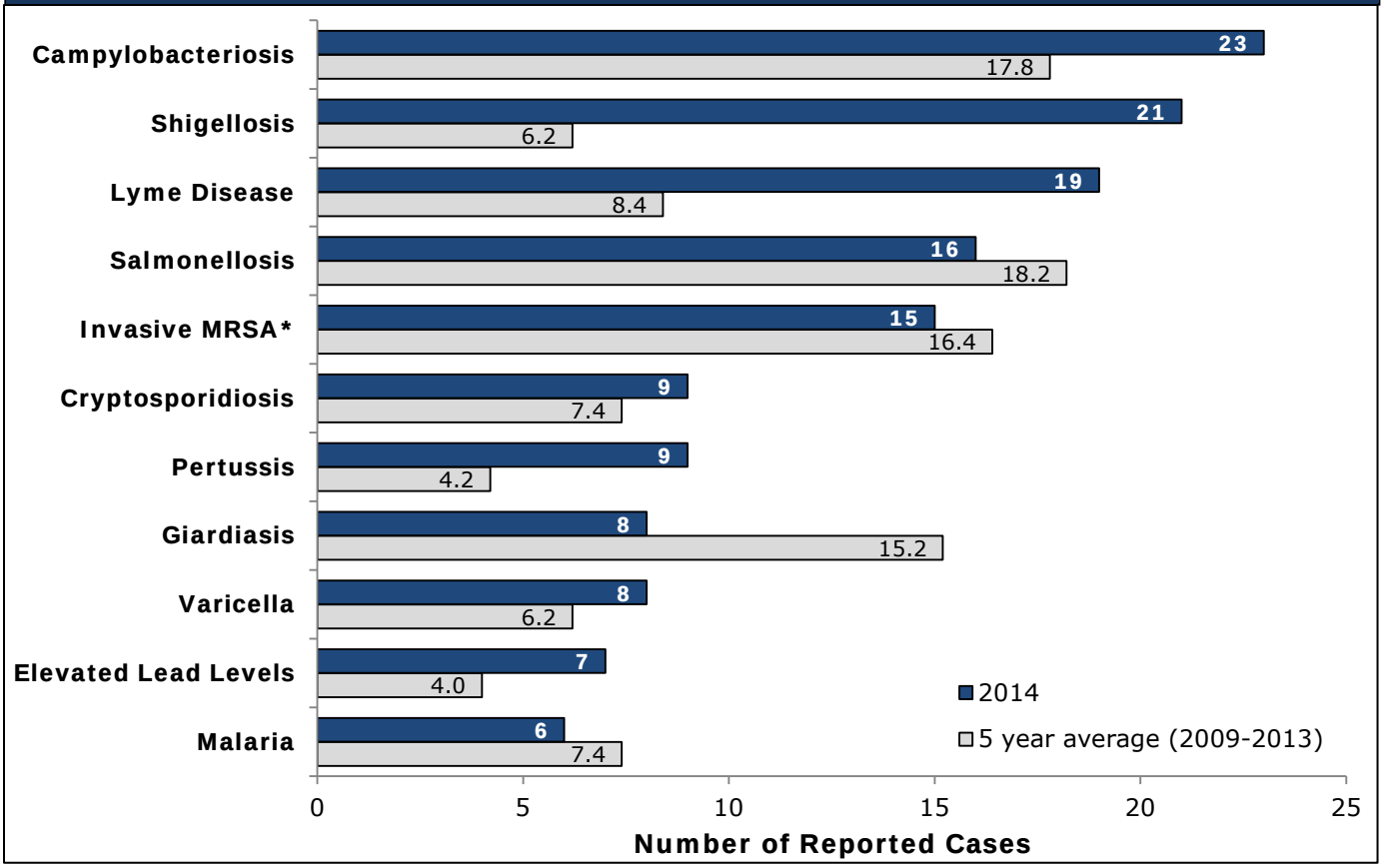
2014 Summary of Selected Reportable Diseases

Program Highlights[a]

393 disease investigations and 4 outbreak investigations (3 gastrointestinal illnesses, 1 respiratory) were completed in 2014. A summary of the top reported diseases in Alexandria is presented in Figure 1.

On October 27, 2014, CDC announced that monitoring of all travelers returning from Ebola-affected countries would begin. AHD epidemiologists and public health nurses were an integral part of the team involved with monitoring travelers from Ebola-affected countries. Virginia monitored 1934 travelers through September 30, 2015; 1693 (85%) were in Northern Virginia.

Figure 1. Top Reportable Diseases in Alexandria, VA (2014)[b]



*Methicillin-resistant Staphylococcus aureus

Box 1. Ways to Promote Public Health in Our Community

1) Encourage healthy behaviors
- Cough into your sleeve
- Wash your hands
- Stay home when sick. This is especially important for patients who work in high-risk settings (direct patient care, daycare, or food handling). Patients should not return to work until 24 hours after diarrhea and/or fever resolve (*without the use of fever-reducing medication*).

2) Promote vaccination by ensuring that patients are fully vaccinated according to most recent guidelines. Recommend appropriate vaccines to patients before international travel.
- Immunization Schedules
- Destination-specific Health Information for Travelers

3) Contact the Health Department if you suspect an outbreak or any unusual occurrence of public health concern by calling **571.259.8549**. Healthcare providers are the foundation of disease surveillance in our community.

a Disease investigation total excludes sexually transmitted infections (STI) and tuberculosis (TB) investigations; information on these conditions is presented separately on page 3

b Figure 1 does not include chronic hepatitis, STI, or TB cases

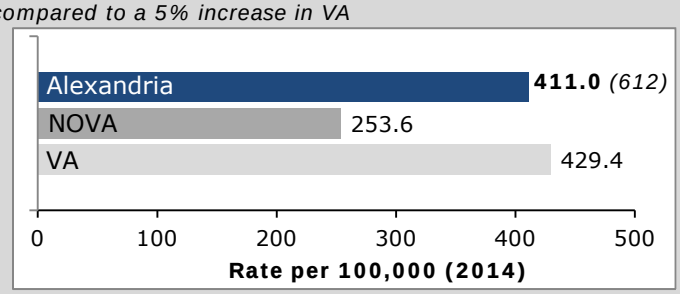
Sexually Transmitted Infections (STI)

In 2014, the rates of STIs in Alexandria were higher than the rates of STIs in the Northern Virginia Region (NOVA). The VDH Division of Disease Prevention (DDP) publishes annual reports on STIs that summarize demographic and risk factor data; these reports can be accessed online (DDP Reports). A summary of 2014 data is presented in Figure 2. Updated STI resources (including training, treatment information, and fact sheets) are available from CDC.

Figure 2 a-d. Rates of Sexually Transmitted Infections *(No. of cases)*
Alexandria, NOVA and VA (2014)[c,d]

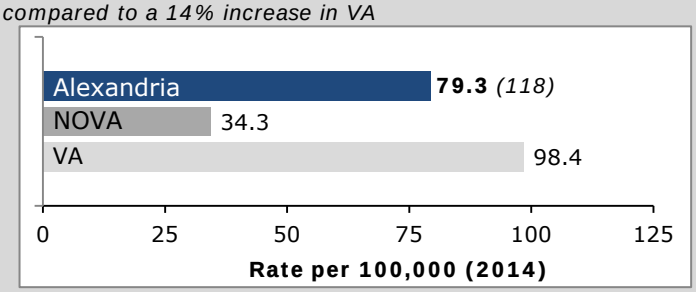
a. Rate of Chlamydia *(n)*

From 2013 to 2014, the rate increased 9% in Alexandria compared to a 5% increase in VA



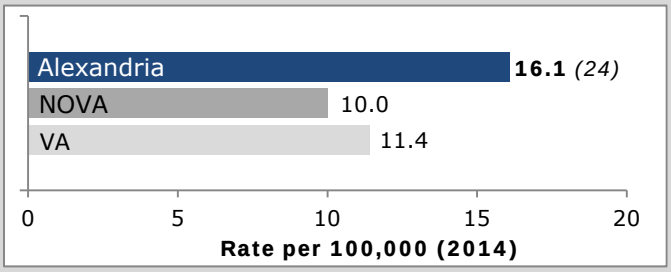
b. Rate of Gonorrhea *(n)*

From 2013 to 2014, the rate remained the same in Alexandria compared to a 14% increase in VA



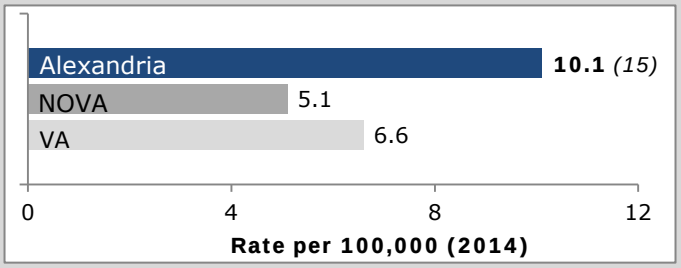
c. Rate of New HIV Diagnoses *(n)*

From 2013 to 2014, the rate decreased 33% in Alexandria compared to a 6% decrease in VA



d. Rate of Total Early Syphilis (TES) *(n)*

From 2013 to 2014, the rate decreased 42% in Alexandria compared to a 20% decrease in VA

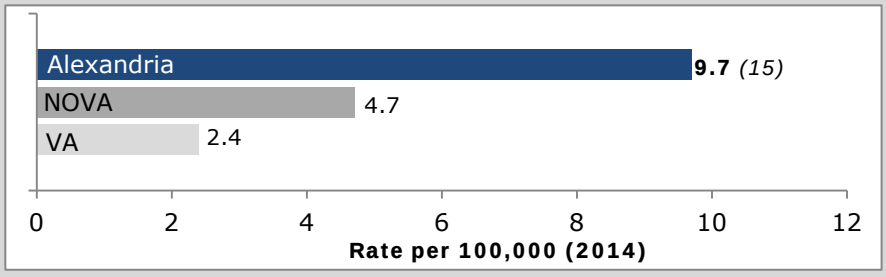


Tuberculosis (TB)

In 2014, Alexandria had the highest rate of TB out of the 35 health districts in Virginia. The VDH Division of Disease Prevention (DDP) publishes annual reports on Tuberculosis that summarize demographic and risk factor data; these reports can be accessed online (DDP Reports). A summary of 2014 data is presented in Figure 3. Updated TB resources (including training, treatment information, and fact sheets) are available from CDC.

Figure 3. Rate of Tuberculosis *(No. of cases)*
Alexandria, NOVA and VA (2014)[c,d]

From 2013 to 2014, the rate of TB decreased 2% in Alexandria compared to a 9% increase in VA



c The Northern Virginia Region (NOVA) includes Alexandria, Arlington, Fairfax, Loudoun, and Prince William Health Districts
d Data as of 9/4/15; data for 2014 may be incomplete due to reporting delays

Spotlight: Prescription Drug Abuse

The U.S. is currently experiencing a prescription painkiller overdose epidemic. In 2013, 16,235 people died from prescription opioid pain killers in the U.S. - that's 44 people each day.[1] In Virginia, 505 people died from prescription painkillers in 2013.[2] In 2014, that number had increased by 8.3% to 547 deaths in Virginia- more than one Virginian a day.

From 1999 to 2013, the CDC reported that the amount of painkillers prescribed in the country had nearly quadrupled despite the fact that there has been no overall change in the amount of pain that Americans report.[1] The recent increase in prescription painkiller deaths has mirrored the increased sales.

Even though the increase in death rates appears to be slowing, a significant public health burden remains. In 2011, the highest death rates were among adults aged 45 to 54 years old and non-Hispanic white persons.[3] When prescribing opioid painkillers, clinicians should consider best practices summarized below (Box 2).

WHO IS AT RISK? [1,3]

Highest mortality among:

- Adults aged 45 to 54 years
- Non-Hispanic white persons

Risk factors for abuse and overdose include:

- Obtaining overlapping prescriptions from multiple providers and pharmacies
- Taking high daily dosages of prescription painkillers
- Having mental illness or a history of alcohol or other substance abuse
- Living in rural areas
- Having low income

Box 2. Best Practices for Safe and Effective Pain Management

Prescribe Responsibly

- Provide the lowest effective dose and only the quantity needed for the expected duration of pain
- Use the Virginia Prescription Monitoring Program (PMP), a secure online system that provides licensed healthcare practitioners with 24/7 access to Schedule II through IV prescription history of patients receiving controlled substances. Use of the PMP helps to fight prescription drug abuse, insurance fraud, and the rising costs of healthcare.

Plan Ahead

- Talk with your patients about how to stop opioid use once treatment is completed
- Consider prescribing naloxone along with the first opioid prescription

Provide Information

- Share information on how to use, store, and dispose of opioids safely

Avoid combinations of prescription opioids and sedatives unless there is a specific medical indication

Talk with your patients

- Summarize the risks of taking opioids, including addiction, overdose, and death
- Discuss alternative pain treatment options, such as over the counter pain relievers or physical therapy and exercise

RESOURCES

For Clinicians

- Opioid and Pain Management CMEs/CEs (NIH)
- Clinical Resources (NIH)
- Use, Abuse, Misuse and Disposal of Prescription Pain Medication: Clinical Reference (ACPM)
- Opioid Overdose Toolkit: Information for Prescribers (SAMHSA)
- How to Prevent Opioid Abuse: Training and Education (AMA)

For Patients

- Patient Materials (NIH)

SAMHSA BEHAVIORAL HEALTH TREATMENT LOCATOR 1-800-662-HELP

findtreatment.samhsa.gov

Spotlight: Antibiotic Stewardship

It is estimated that about 50% of antibiotics prescribed in both hospital and outpatient settings are not needed. Each time an antibiotic is used there is a possibility that bacteria will develop resistance. More than 2 million people become ill with antibiotic-resistant infections each year in the United States; at least 23,000 individuals will die due to these infections.[4] By promoting antibiotic stewardship and improving antibiotic prescribing practices, patient outcomes can be maximized while minimizing antibiotic resistance in the community. A summary of best practices can be found below.

Basic Elements of Antibiotic Stewardship Programs

Leadership Commitment: Dedicate necessary human, financial and information technology resources

Accountability: Appoint a single leader responsible for program outcomes

Drug Expertise: Appoint a single pharmacist leader responsible for working to improve antibiotic use

Action: Implement at least one recommended policy or intervention that supports optimal antibiotic use

Tracking: Monitor antibiotic prescribing and resistance patterns

Reporting: Regularly report information on antibiotic use and resistance to doctors, nurses and relevant staff.

Education: Educate clinicians about resistance and optimal prescribing

IMPLEMENTATION TOOLS

☐ Checklist for Hospitals ☐ Checklist for Long Term Care Settings

Box 3. Evidence-based Methods to Improve Antibiotic Prescribing in Outpatient Settings

1) AUDIT AND FEEDBACK

- Create an audit program that compares a clinician's prescribing rates to expected rates based upon current clinical practice guidelines or to other coworkers
- Provide feedback and education to clinicians

2) ACADEMIC DETAILING (clinical education for healthcare professionals)

- Providing active education can improve clinical decision-making and prescribing behaviors. Key components include:
  - Assessing baseline knowledge
  - Focusing efforts on specific clinicians or clinician leaders
  - Using active education strategies
  - Highlighting and repeating essential messages
  - Using positive reinforcement to reward desired behaviors

3) CLINICAL DECISION SUPPORT (CDS)

- Use of either electronic or paper-based CDS can aid clinicians in determining whether or not an antibiotic is needed for common outpatient settings

4) DELAYED PRESCRIBING PRACTICES

- If a patient does not appear to immediately need an antibiotic, consider asking a patient to wait before starting an antibiotic. This may be accomplished by:
  - Writing a post-dated prescription
  - Re-contacting a patient after a clinical visit
  - Providing a prescription with a verbal order to fill it if symptoms do not improve after a certain amount of time

5) POSTER-BASED INTERVENTIONS

- Displaying posters summarizing appropriate antibiotic use can:
  - Educate patients and clinicians
  - Reduce patient expectations for an antibiotic
  - Advertise a clinician's commitment to appropriate antibiotic use

Spotlight: Careful Integration of Health Care Apps into Practice

There are well over 1 million mobile apps available in both the Apple App Store and Google Play Store for consumers to browse. Use of mobile apps in the medical setting can improve information management, time management, health record maintenance, communication, reference and information gathering, clinical decision-making, patient monitoring, and medical education and training. It is important to remember that most apps are unregulated. The U.S. Food and Drug Administration recently announced that regulatory oversight is anticipated only for apps that function as medical devices. Mobile health apps should be carefully evaluated before use. iMedicalApps is a site that provides reviews by healthcare professionals for mobile medical technology and health care apps.

Questions to Consider Before Using an App[5]

- Where does the information in the app originate? (private individual, professional society)
- Is the developer a health care provider or clinical researcher?
- Who is paying for or sponsoring the app?
- Does the app include references that support the content?
- Are the references up-to-date and timely?
- How frequently is the app updated?
- Does the app have a systematic methodology for evaluating and obtaining information?

Public Health Apps

Many government organizations have created apps to provide quick access to guidelines and regulations. As a public health leader, CDC has developed mobile apps for health care providers. Below is a summary of a few of the apps that are available in the Apple App Store and/or the Google Play Store.

About	Description
CDC Vaccine Schedules Developer: CDC Platform: iOS or Android Cost:Free	Quick access from CDC to ACIP-recommended immunization schedules, complete with footnotes. Intended for healthcare professionals recommending and administering vaccines to infants, children, adolescents, and adults.
2015 STD Treatment Guide Developer: CDC Platform: iOS Cost:Free	Easy-to-use reference that combines information from the STD Treatment Guidelines as well as MMWR updates, and features a streamlined interface so providers can access treatment and diagnostic information.
TravWell Developer: CDC Platform: iOS or Android Cost: Free	CDC's TravWell app helps you plan for safe and healthy international travel. Build a trip to get destination-specific vaccine recommendations, a checklist of what you need to do to prepare for travel, and a customizable healthy travel packing list.
Tickborne Disease Developer: CDC Platform: iOS or Android Cost:Free	Provides health care providers access to concise, comprehensive, and updated information about the prevention, identification, and treatment of tickborne diseases

Disclaimer: The information appearing in this section is for general informational purposes only. Reference to specific products does not represent endorsement, recommendation, or favoring by AHD. We strongly recommend that you review the policies of any app before use.

Virginia Reportable Disease List

Reporting of the following diseases is required by state law (Sections 32.1-36 and 32.1-37 of the *Code of Virginia* and 12 VAC 5-90-80 and 12 VAC 5-90-90 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, except those listed in **RED**, which must be reported immediately by the most rapid means available.

- Acquired immunodeficiency syndrome (AIDS)
- Amebiasis
- **ANTHRAX**
- Arboviral infection (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 (MRSA) 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 (TB), 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 mycobacterial disease (other than TB) and invasive MRSA infection are reportable by physicians and directors of medical care facilities. 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 TB, to DCLS or other lab designated by the Board.

^ Laboratories that use a Shiga toxin EIA methodology but do not perform simultaneous culture for Shiga toxin-producing *E. coli* should forward all positive stool specimens or positive enrichment broths 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 must be reported immediately by rapid means.

Note: 1. Some healthcare-associated infections are reportable. Contact the VDH Healthcare-Associated Infections Program at (804) 864-8141 or see 12 VAC 5-90-370 for more information.

2. Cancers are also reportable. Contact the VDH Virginia Cancer Registry at (804) 864-7866 or see 12 VAC 5-90-150-180 for more information.

Alexandria Health Department: Epidemiology

To report conditions in RED, call 571.259.8549

For general inquiries, call 703.746.4951

Fax: 703.749.4953

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment
www.vdh.virginia.gov

Effective March 28, 2011
Current as of Oct 2015

Information for Healthcare Providers

Public Health Services

The Alexandria Health Department provides many services to the community. An overview of our services, including program descriptions, locations, phone numbers and hours of operation, is available in our *Guide to Services and Programs* (English and En Español).

Information about AHD clinical and public health nursing services is also available online.

Free Training Opportunities

AHD epidemiologists can provide disease-specific and infection control and prevention training. If you are interested in training for your staff, please contact us at 703.746.4951.

Mandatory Disease Reporting

Clinicians practicing in Virginia are required by law to report certain conditions to their local health department. Prompt reporting allows for appropriate public health action to be taken. If you have any questions about mandated reporting, please contact us.

Contact Information for Disease Reporting

For diseases listed in **black**	For diseases listed in **RED**
Timeframe: Submit form within 3 days of suspected or confirmed diagnosis **Report Form:** Epi-1 form **Report Method:** Phone, fax, or mail Phone: 703.746.4951 Fax: 703.746.4953 Alexandria Health Department Attn: Communicable Disease 4480 King Street Alexandria, VA 22302	**Timeframe:** Report immediately by the most rapid means available **Report Form:** Epi-1 form **Report Method:** Phone *Monday – Friday (8 a.m. – 5 p.m.)* Office phone: 703.746.4951 *Evenings and Weekends (24/7):* Cell phone: 571.259.8549