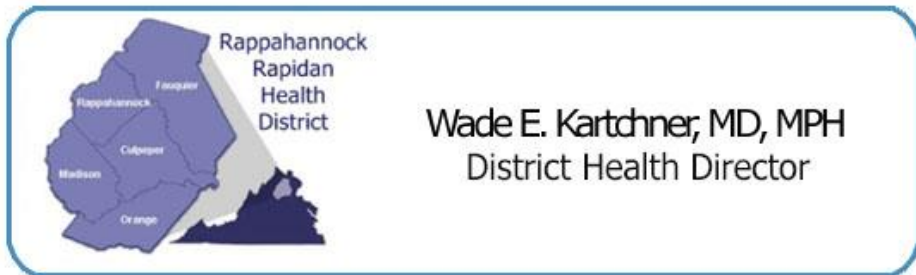




JUNE 2018

POPULATION HEALTH REPORT

Our mission is to attain optimal health for the people of our community through disease prevention, environmental safeguards and health promotion.



Disease Surveillance
Summary

Local Opioid Data

Community Health

Spotlight on CRE

Environmental Health


Rappahannock-Rapidan
Health District

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Warrenton, VA 20186
www.rrhd.org

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Offices in:

Culpeper
Fauquier
Madison
Orange
Rappahannock

 Please consider the environment before printing this report; hyperlinks are included to enable easy navigation in electronic format.

Introduction

The Rappahannock-Rapidan Health District (RRHD) is comprised of the counties of Culpeper, Fauquier, Madison, Orange and Rappahannock. There are separate Health Department facilities in each of the five counties, which serve as the primary source of public health services. The District is part of the Virginia Department of Health, from which it receives funding and programmatic direction.

Public Health

In 1900, the US life expectancy was 47 years of age. By 1960, life expectancy had reached approximately 70 years. This 23-year gain occurred before many of the “miracles of modern medicine” (CT and MRI scans, cancer cures, heart disease drugs, etc.) had been developed.

How did this happen? There were five primary factors: sanitation (keeping people separated from their feces and other waste), safe drinking water (underground rather than surface sources, free of microbial and chemical contamination), safe food storage and preparation, immunizations (smallpox wiped out, polio eradicated from Western Hemisphere), and antibiotics. The first four examples are public health driven initiatives.

Over time, life expectancy increased to 78.6 (2016). This is largely due to healthier mothers and babies, recognizing tobacco as a health hazard (smoking prevalence is 1/2 of what it was 50 years ago), and the creation of medical breakthroughs and pharmaceuticals.

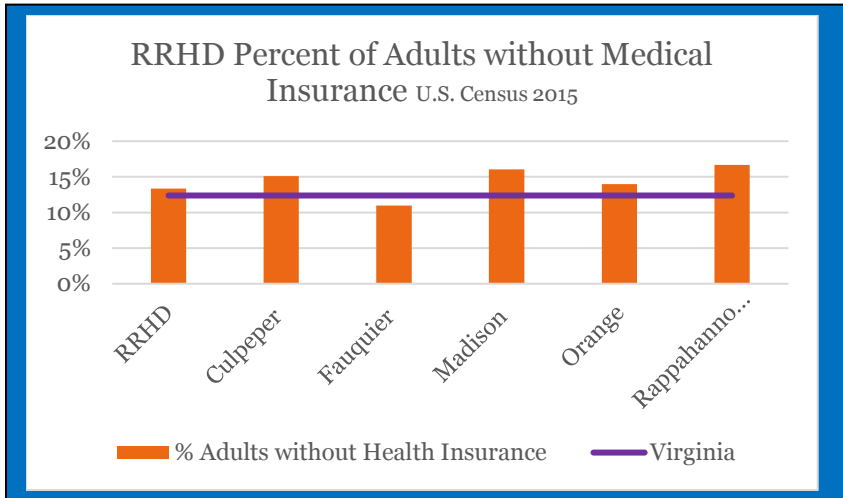
These considerable accomplishments, however, are not equitable in our communities. In some areas, a person’s zip code is a stronger determinant of health than their genetic code. Moving forward, public health aims to work with local partners to guide and assess prevention initiatives, including those that target social determinants of health and enhance equity.

This report aims to provide a summary of health in RRHD, and a place to start our journey ahead.

This report was prepared by RRHD Population Health Coordinator April Achter, MPH, and approved by RRHD Health Director, Wade E Kartchner, MD, MPH; any errors are solely their responsibility. Feedback is welcome: april.achter@vdh.virginia.gov or wade.kartchner@vdh.virginia.gov.

Our Community

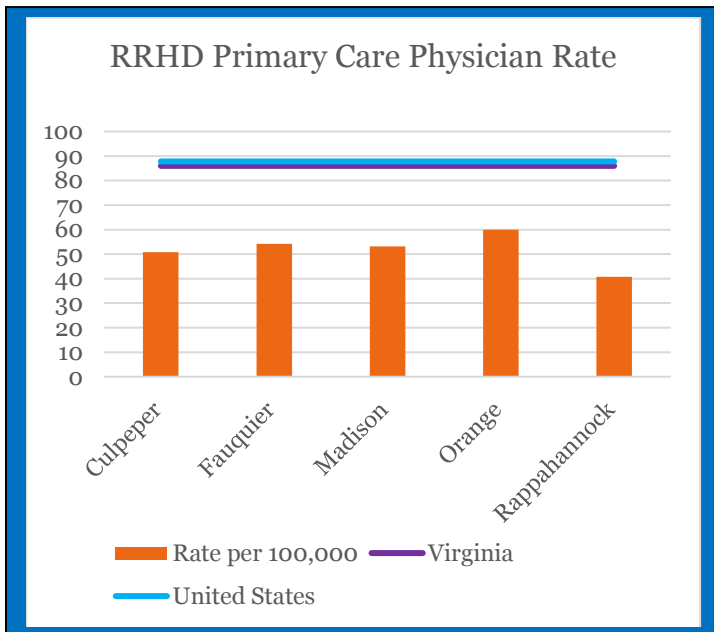
The RRHD is comprised of the counties of Culpeper, Fauquier, Madison, Orange and Rappahannock. The total population includes 172,388 residents, almost evenly split between male and female that live in the 1,955 square mile health district. The racial breakdown is 83.76% White, 10.29% Black, 3.31% mixed race, and 1.24% Asian. Almost 7% identify as Hispanic, although that number may be underrepresented (U.S. Census Bureau, ACS, 2012-2016).



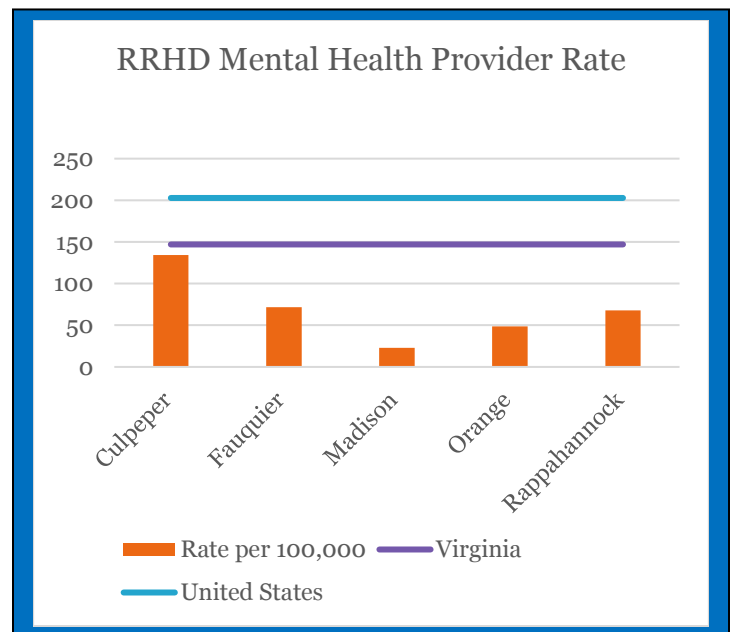
The median family income (which includes income from all family members over the age of 15) ranges from \$51,882 in Madison County to \$109,373 in Fauquier County. The median family income in Virginia, \$80,068, is higher than all localities in RRHD other than Fauquier. The health district reports an unemployment rate of 3.3% (U.S. Department of Labor, 2017), compared to 3.8% in Virginia and 4.5% in the United States. In RRHD, 23.41% or 39,653 individuals are living in households with income below 200% of the Federal Poverty

Level (FPL). Poverty creates barriers to access health services, healthy food, and other necessities that contribute to poor health status. Madison County reports the highest percentage of individuals living in households with income below 200% of the FPL at 39.71%.

The uninsured rate, financial hardship, and provider accessibility limit access to care. These factors create barriers to good health.



U. S. Department of Health & Human Services, 2014

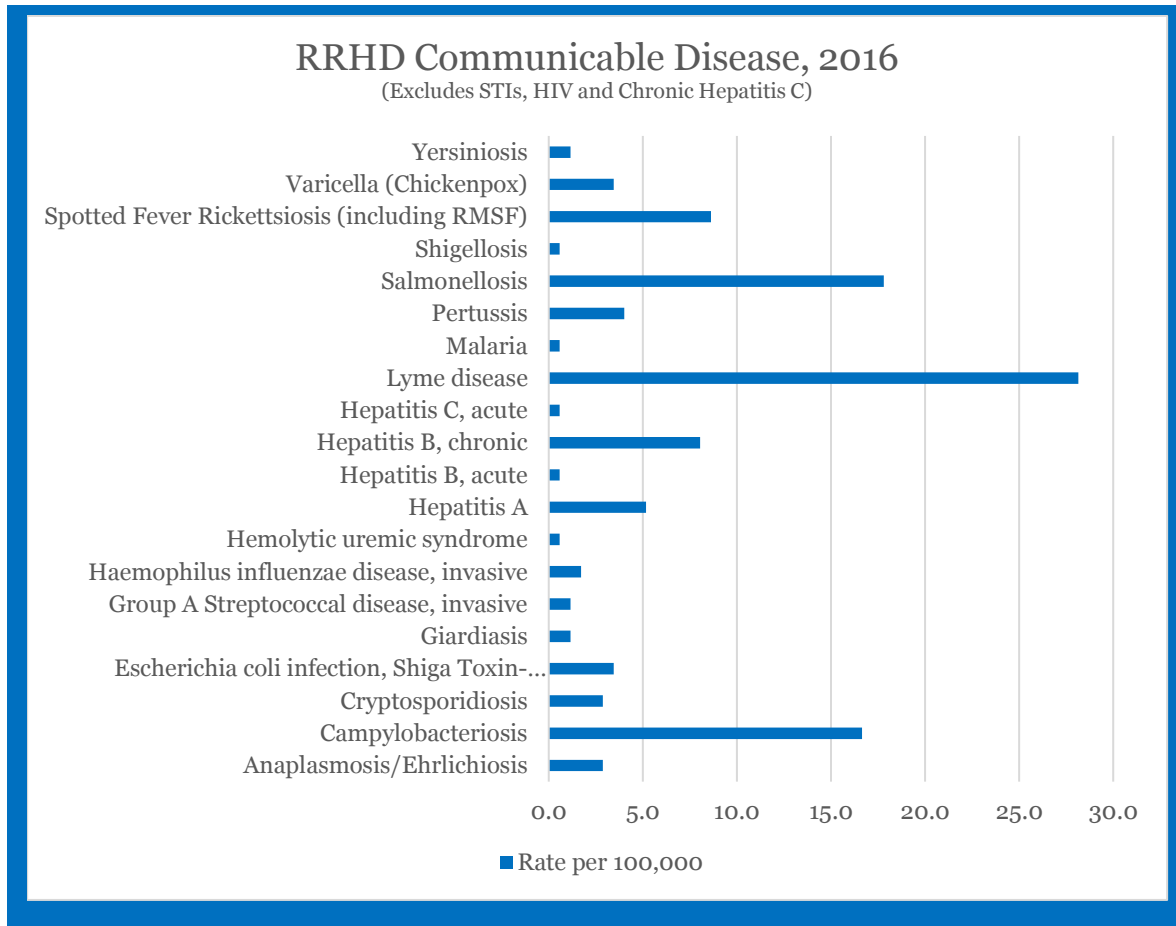


County Health Rankings, 2018

2016 Summary of Selected Communicable Diseases

The Centers for Disease Control and Prevention (CDC) publish surveillance case definitions each year to standardize reporting of diseases across the country ([CDC Surveillance Case Definitions](#)). Although these definitions standardize disease reporting, they should not be used for clinical diagnosis or patient management.

In 2016, the Rappahannock-Rapidan Health District (RRHD) investigated 229 reports of disease, with 190 counted as confirmed or probable cases. These numbers do not include an additional 227 reported and confirmed cases of Chronic Hepatitis C. RRHD investigated 12 reported outbreaks in 2016.



Most commonly reported communicable disease in 2016

Northwest Region:
Campylobacteriosis

Virginia:
Hepatitis B, Chronic

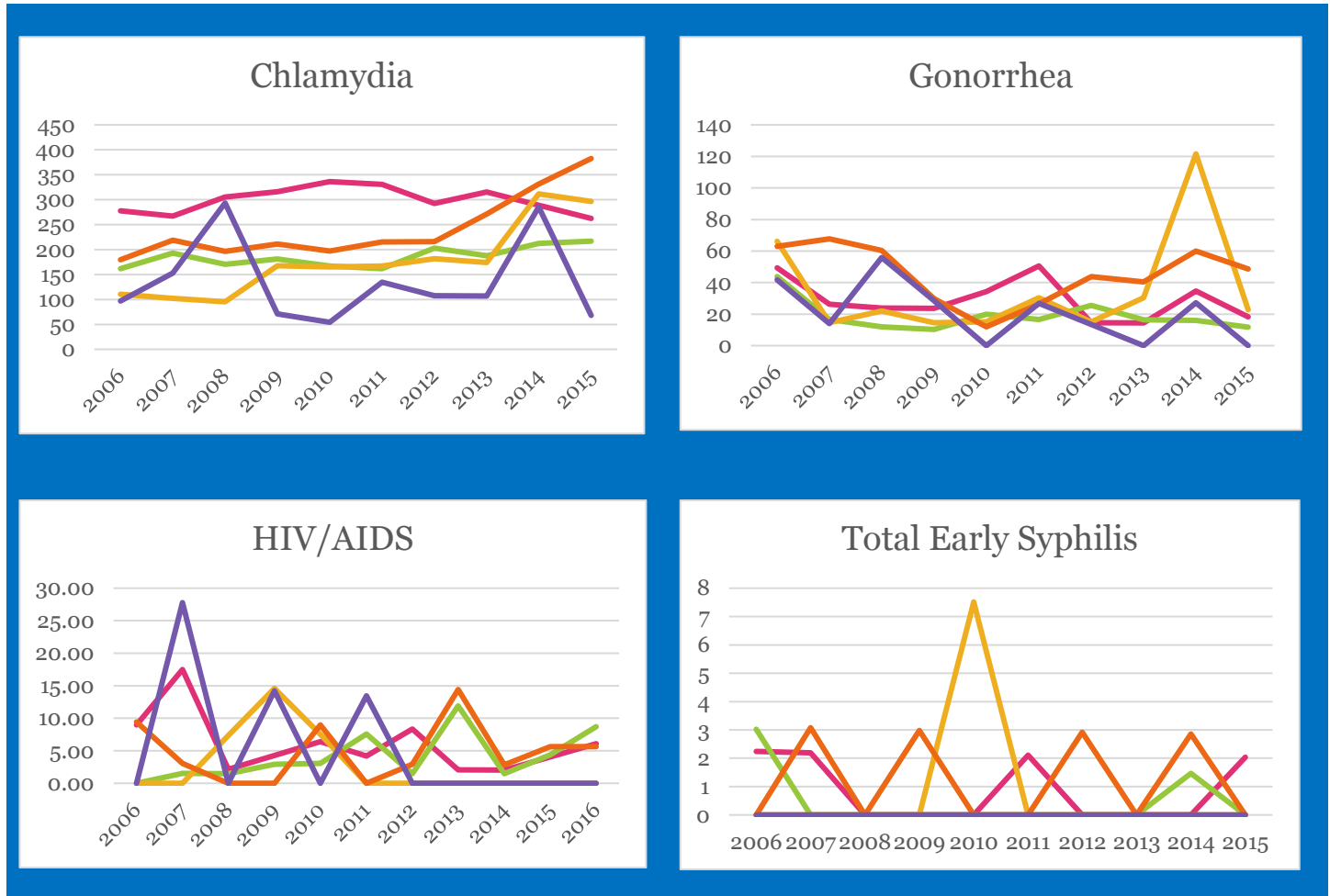
Report: suspected outbreaks or any unusual occurrence of public health concern. During normal business hours, call your local health department. **After hours, please call 866-531-3068.** [Virginia Reportable Disease List](#)

RRHD Outbreaks by Etiology, 2016



■ C. perfringens ■ Escherichia coli ■ Impetigo
■ Influenza ■ Norovirus ■ GI unknown etiology

Summary of Sexually Transmitted Infections, Rate per 100,000



— Culpeper — Fauquier — Madison — Orange — Rappahannock

National rates of Sexually Transmitted Infections (STIs) have increased for the third consecutive year (CDC).

In RRHD, chlamydia is the most commonly reported STI. Orange County has experienced the most significant increase from a rate of 216 per 100,000 in 2012 to 382 per 100,000 in 2015.

Gonorrhea rates have declined in the health district since 2006, although they have increased in Orange County and returned to nearly the same 2006 rate.

HIV/AIDS and Total Early Syphilis rates are highly variable due to low case counts and should be interpreted with caution.

**Neisseria gonorrhoeae* has developed progressive resistance to its antimicrobial treatments. Even among cephalosporins, the final option, ongoing surveillance revealed less susceptibility to cefixime. Treatment updates were updated in 2015 to reflect the last available first line therapy option: dual treatment with ceftriaxone and azithromycin ([Antibiotic Resistant Gonorrhea - STD information from CDC](#)).

Opioid Response Activities

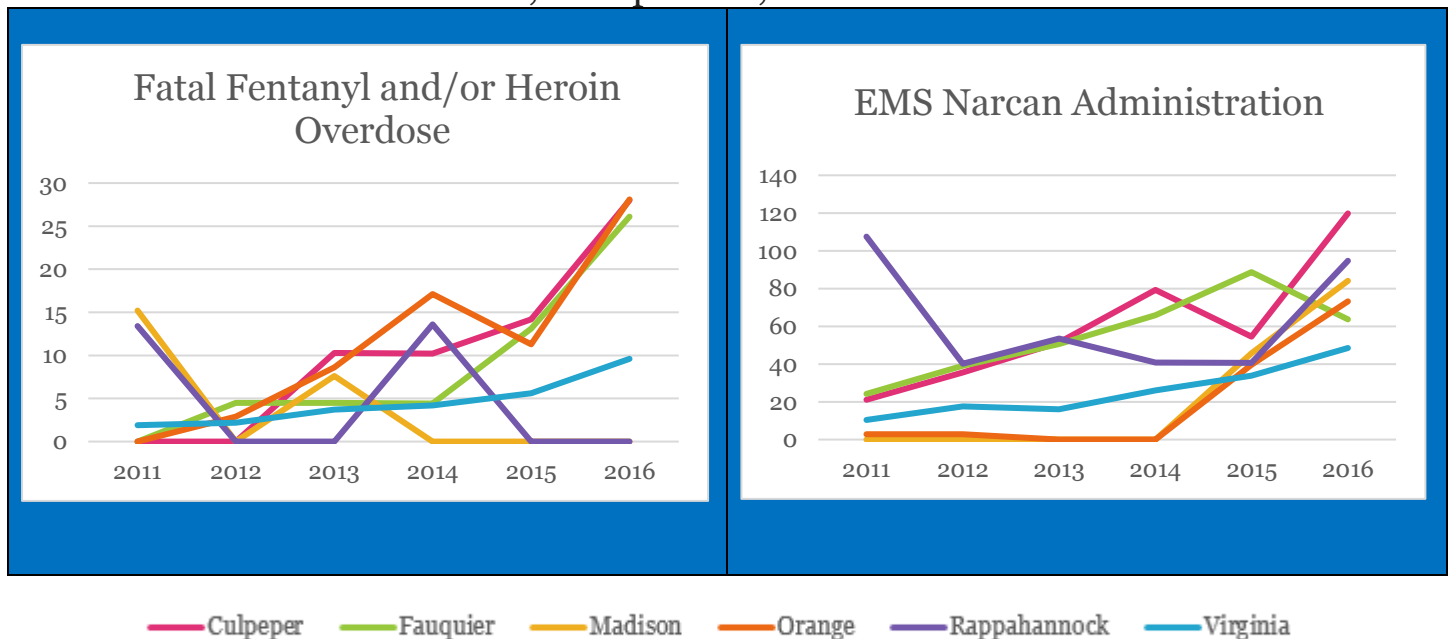
A Public Health Emergency is an event, either natural or manmade, that creates a health risk to the public. In 2016, an average of three Virginians died of a drug overdose and over two dozen were treated in emergency departments for drug overdose each day.

Public health works to address the opioid crisis by serving as one part of the “3-legged stool” approach. The three legs consist of prevention, treatment, and harm reduction. Law enforcement typically leads prevention efforts, by working to stop illegal drug trade. Community Services, treatment agencies/organizations, and private providers manage treatment. Local Public health primarily works in harm reduction (and prevention through education).

Harm reduction has included offering intranasal naloxone (Narcan) to the public through a partnership with Rappahannock-Rapidan Community Services (RRCS) and Come as You Are (CAYA) coalition. RRCS and CAYA provide training and instruction on how to use naloxone, and public health dispenses the medication. RRDH has dispensed approximately 150 medication doses.

RRHD also participates in numerous area coalitions, including Piedmont C.R.U.S.H. (Community Resources United to Stop Heroin), Epidemic Intelligence Council (EpIC), CAYA, Virginia State Police/local law enforcement/EMS, and others.

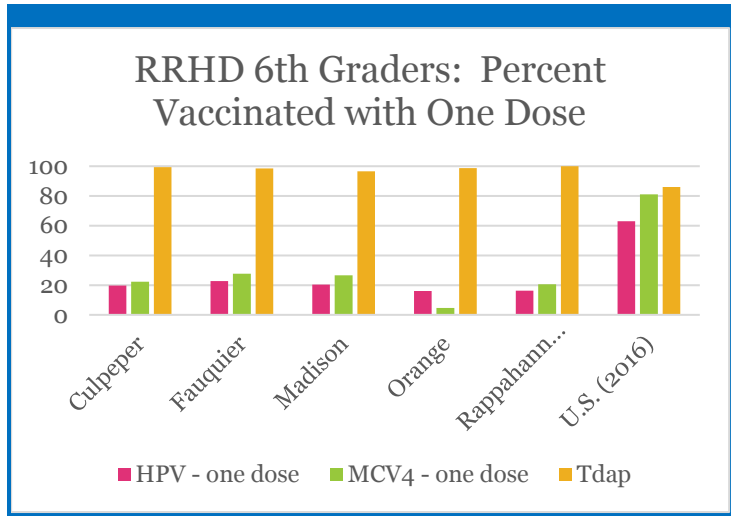
RRHD, Rate per 100,000: 2011-2016



Although 2017 data are not available for most localities, Fauquier County reported that drug overdoses rose by 50% to 141 total. Even with that increase, deaths attributed to drug use decreased by two-thirds. Law enforcement officials reported that drugs killed eight persons in Fauquier County in 2017, compared to 22 in 2016. The Fauquier sheriff’s office and Warrenton Police Department were among the first in the state to train and equip officers with Narcan.

2018 Community Health Priorities

Increase the number of rising 6th graders vaccinated against Human Papillomavirus Vaccine (HPV) and Meningococcal Disease: RRHD lags far behind national rates for the percentage of rising sixth graders receiving Human Papillomavirus Vaccine (HPV) vaccine and meningococcal vaccine (MCV4).



RRHD Local Data, US CDC

Promote vaccination: ensure patients are fully vaccinated according to the Advisory Committee on Immunization Practices (ACIP) guidelines.

[CDC Immunization Schedules](#)

[ACIP Vaccine Recommendations and Guidelines](#)

[CDC Recommended Vaccines by Disease](#)

Encourage a healthy diet: Households with limited resources often try to stretch their food budgets by purchasing cheap, energy-dense fare. RRHD will collaborate with community partners to work to make the local farmers markets available to those utilizing the Supplemental Nutrition Assistance Program (SNAP).

RRHD Households that are Food Insecure

Locality	Population	%	Est. Number
Culpeper	48,424	9.1%	4,380
Fauquier	67,463	6.2%	4,200
Madison	13,147	10.3%	1,350
Orange	34,596	10.1%	3,510
Rappahannock	7,431	8.6%	640

Map the Meal Gap, American Community Survey, U.S. Census Bureau 2015

RRHD 3rd Grade Standards of Learning Results

School Division	2013-14	2014-15	2015-16
Culpeper	69%	70%	72%
Fauquier	71%	74%	76%
Madison	55%	65%	52%
Orange	68%	72%	74%
Rappahannock	73%	65%	77%

Virginia Department of Education

Increase the percent of third graders who pass the Standards of Learning (SOL) Third Grade Reading Assessment in Madison County.

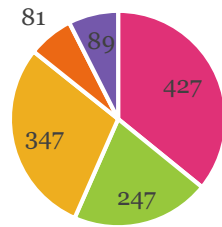
In Virginia (2015-2016), 75.4% of third graders passed the 3rd Grade SOL reading assessment.

HP 2020 Goal = 80% pass

Environmental Health

Environmental Health protects the community by preventing the transmission of disease through food, milk, shellfish, water and sewage. The onsite program oversees the regulation of onsite sewage treatment and disposal (conventional and alternative systems) and private wells. Food Safety and Consumer Services staff work with food establishments, hotels, motels, bed and breakfasts, and temporary events to prevent and address illness.

RRHD Sewage Applications & Reviews
Fiscal Year 2017: July 1, 2016-June 30, 2017



- Sewage Repair Applications
- Sewage Construction Applications
- Combined Applications
- Single Lot Certification Applications
- Subdivision Reviews

During the 2017 fiscal year, RRHD Environmental Health managed 1,191 sewage applications/reviews and 583 private water supplies applications.

Food Safety and Consumer Services inspected 955 facilities (including restaurants, hotels, summer camps and swimming pools), 465 temporary event vendors at 128 events, and 94 complaints.

Rabies Exposures & Postexposure Prophylaxis (PEP)

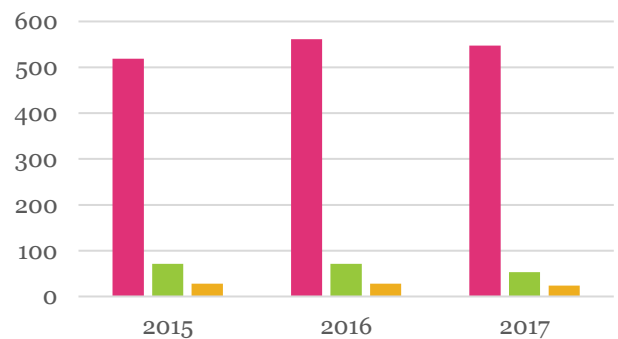
Only mammals (including humans) can contract rabies. The rabies virus, found in the saliva and brain/nervous system of a rabid animal, can be transmitted through a bite or by getting saliva or brain tissue into one's eyes, nose, mouth, or in an open wound. A **bite exposure** consists of any penetration of the skin by a rabid or potentially rabid animal. **Non-bite exposures** include contamination of open wounds, abrasions, mucous membranes, or theoretically scratches. Other contact by itself, such as touching a wild animal or contact with blood, urine or feces, is not considered an exposure. Please call your local health department with any questions.

Detailed PEP recommendations can be found here: [CDC Reduced \(4-Dose\) Vaccine Schedule for Postexposure Prophylaxis to Prevent Human Rabies](#)

Please report animal bites to local animal control or the health department

Rabies PEP is available at all area hospital emergency departments.

Rabies-Related Reports in RRHD



- No. people reported potentially exposed to rabies
- No. people recommended PEP
- No. of laboratory confirmed cases of animal rabies

Spotlight on CRE

Enterobacteriaceae are a family of bacteria often found in the gastrointestinal tract. Some Enterobacteriaceae have become resistant to all or almost all antibiotics. Carbapenem-resistant Enterobacteriaceae (CRE) test nonsusceptible to at least one of the carbapenem antibiotics and/or produce an enzyme (carbapenemase) that can make them resistant to these antibiotics. CRE often have other resistance mechanisms that render them nonsusceptible to many other classes of commonly used antibiotics.

These bacteria were uncommon in the United States before 1992. Since then they have become more common primarily due to the spread of Enterobacteriaceae that produce a carbapenemase called KPC (Klebsiella pneumoniae carbapenemase).

Clinical Importance

- Often resistant to multiple classes of antimicrobials substantially limiting treatment options
- High mortality rates, up to 50% in some studies
- Many CRE possess carbapenemases (enzyme that can make them resistant to those antibiotics) which can be transmitted from one Enterobacteriaceae to another potentially facilitating transmission of resistance
- Enterobacteriaceae are a common cause of infections in both community and healthcare settings

Risk Factors

- Invasive medical devices or procedures
- Prior use of broad spectrum antibiotics
- Critically ill
- Immune compromised
- International healthcare exposure

Transmission

- Contact with infected/colonized persons
 - Takes time, ER lower risk than long term care
- Contact with wounds or stool
- Contaminated devices/hands



Infection Control

- Contact precautions for infected or colonized patients
- Personal protective equipment (PPE) and good hand hygiene following exposure to the patient's immediate environment, especially when cleaning up stool or changing wound dressings

Report to Local Health Department

- Pan-resistant organisms, novel resistance mechanisms
 - Any carbapenem-producing CRE or CRPA (carbapenem-resistant *Pseudomonas aeruginosa*) with known resistance mechanism (KPC, IMP, NDM, OXA-48, VIM)
 - Any organism with mcr-type gene
- [CDC Interim Guidance for a Health Response to Contain Novel or Targeted MDROs](#)

Contact Us

We'd love to hear from you! Please contact us with any questions.

You can reach our team Monday through Friday from 8:00 am to 4:30 pm.

After hours, if you are a physician or county official, please call 1-866-531-3068.

Culpeper County Health Department
640 Laurel Street
Culpeper, VA 22701-3993

Phone: 540-829-7350
FAX: 540-829-7345

Culpeper County Environmental Health Office
640 Laurel Street
Culpeper, VA 22701-3993

Phone: 540-829-7466
FAX: 540-829-7492

Fauquier County Health Department
330 Hospital Drive
Warrenton, VA 20186

Phone: 540-347-6400
FAX: 540-347-6405

Fauquier County Environmental Health Office
98 Alexandria Pike, Suite 42
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Phone: 540-347-6363
FAX: 540-347-6373

Madison County Health Department
410 North Main Street, P.O. Box 67
Madison, VA 22727

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FAX: 540-948-3841

Orange County Health Department
450 N. Madison Road
Orange, VA 22960

Phone: 540-672-1291
FAX: 540-672-3109

Orange County Environmental Health Office
128 W. Main Street, Suite A
Orange, VA 22960

Phone: 540-672-0223
FAX: 540-672-1093

Rappahannock County Health Department
491A Main Street, P. O. Box 5
Washington, VA 22747

Phone: 540-675-3516
Fax: 540-675-1021

If you suspect that more than one person has become ill after eating a common food, please contact your local health department. You can also log onto MyMealDetective.com to file an online foodborne illness report. My Meal Detective is an online reporting system that allows you or your patients to file a foodborne illness report when events surrounding the illness are fresh on your mind.

