

Emerging Health Threats

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Topics

- Respiratory review
- Alpha-Gal Syndrome
- Syphilis and Congenital Syphilis
- Antibiotic resistant Gonorrhea
- Foodborne Outbreaks
- Meningococcal Disease
- *C. auris*
- Medical tourism and fungal meningitis Mexico
- MPox
- Heat-related illness

Respiratory Disease

COVID-19

Virginia Data: Week ending September 16 2023, MMWR week 37:

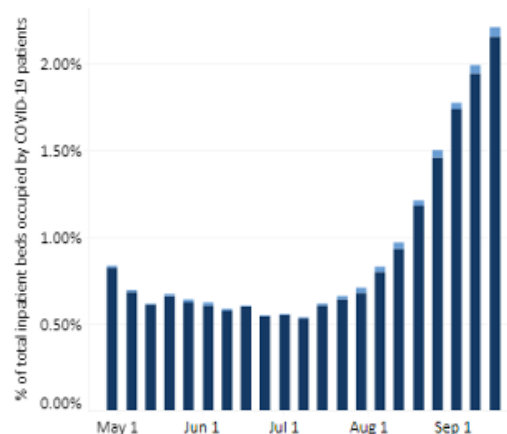
- **2.12%** of ED visits were for diagnosed COVID-19 (14% decrease from previous week)
- **2.21%** of inpatient beds in use for COVID-19 (11% increase from previous week)
- The number of deaths reported for this week was 5 (confirmed & probable)

% Beds Occupied by Patients with COVID-19 is **Low**

Weekly Percent of Emergency Department Visits for Diagnosed COVID-19 in Virginia, April 2023 – September 2023



COVID-19 Hospital Beds in Use for COVID-19 Virginia, March 2023 – September 2023



Pediatric
Adult

Minimal(<2.0%) Low(2.0% - 3.9%) Moderate(4.0% - 5.9%)
Substantial(6.0% - 7.9%) High(≥8.0%)

*Source: [CDC COVID Data Tracker](#), [VDH COVID-19 Dashboard](#)

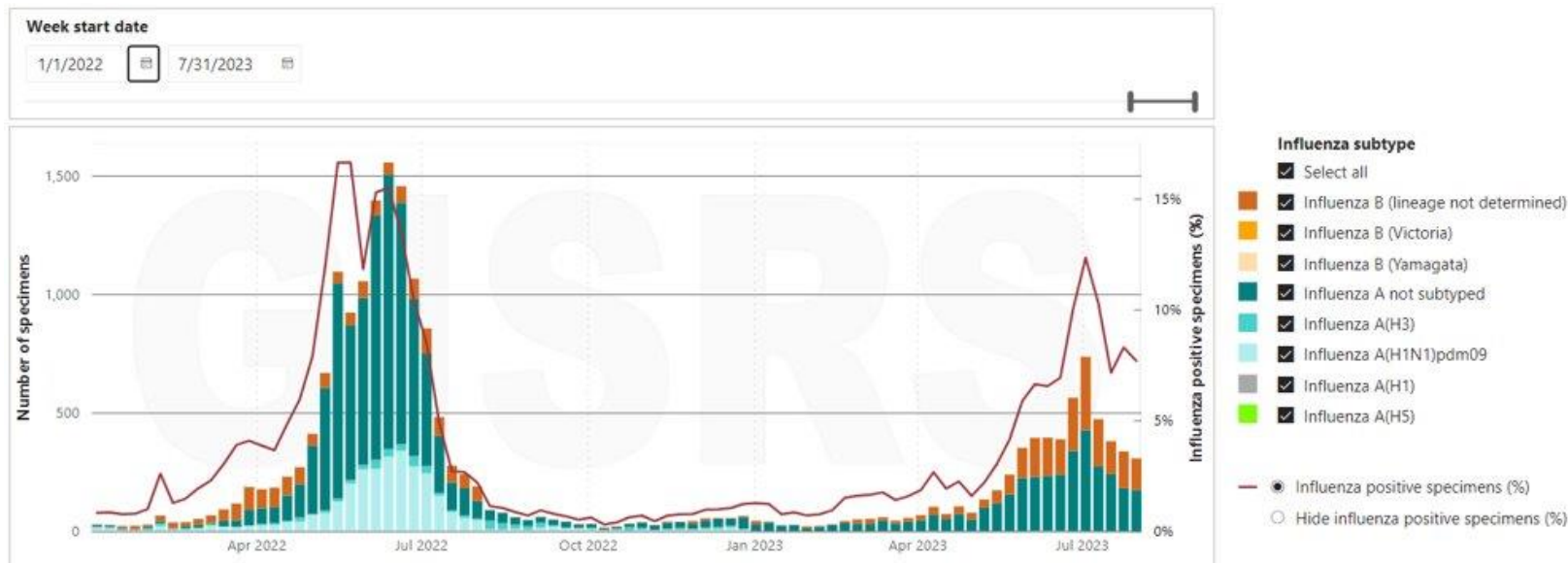
VDH Weekly Respiratory Disease Surveillance Report. Percentage change is calculated off updated case numbers from week prior.

*Data comparisons: Wednesday-Wednesday

Influenza Season in Southern Hemisphere - Australia



INFLUENZA LABORATORY SURVEILLANCE INFORMATION Virus detections by subtype reported to FluNet

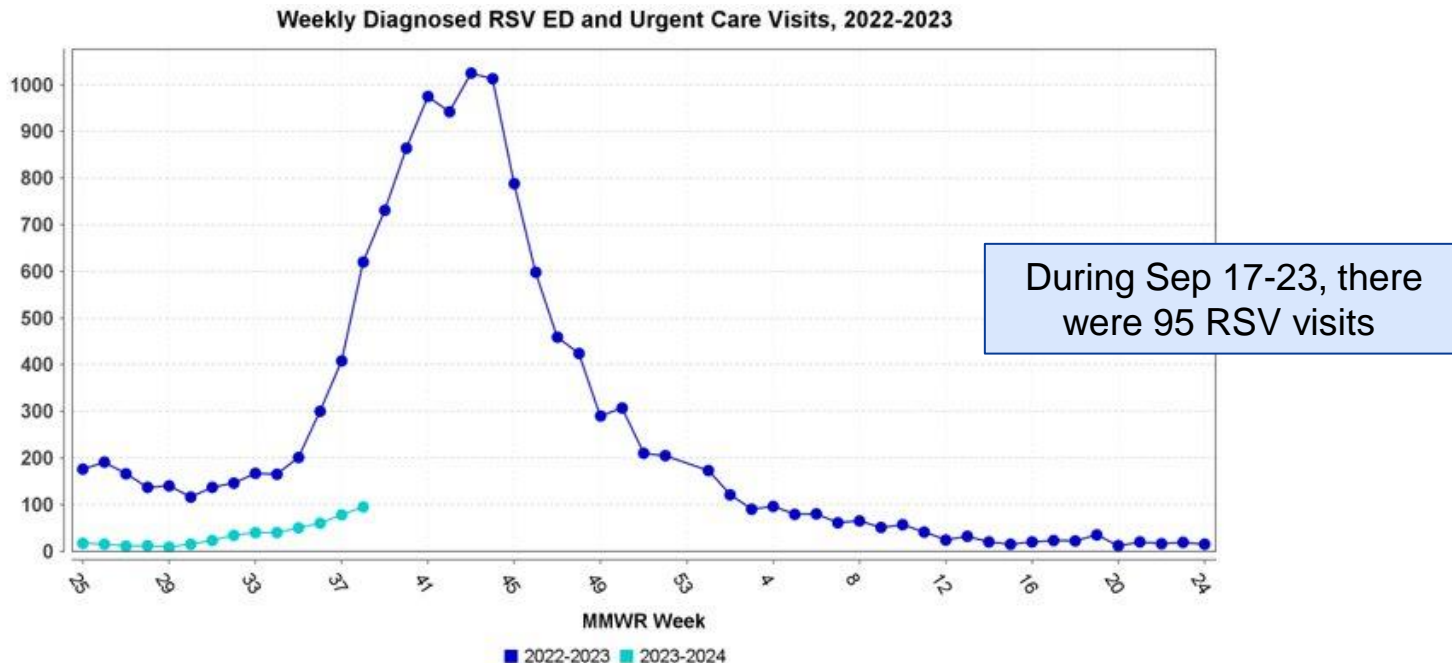


Source: <https://www.who.int/tools/fluNet>

2023-24 Influenza Season

- Don't have enough data to know how the 2023-24 flu season will look like in the northern hemisphere.
- 2023-24 influenza vaccine combination was updated to best match the flu viruses that research indicates will be most common during the upcoming season.
- 2023-24 influenza vaccines will have an updated influenza A(H1N1)pdm09 component.
- ACIP voted that people with egg-allergy may receive any flu vaccine (egg-based or non-egg based) that is otherwise appropriate for their age and health status.
- Additional safety measures are no longer recommended for flu vaccination beyond those recommended for receipt of any vaccine.

Respiratory Syncytial Virus (RSV) ED and Urgent Care Visits



RSV in Virginia:

- Not a reportable condition; monitored through ED and urgent care visits
- In 2022, RSV increased in late summer and peaked earlier compared to previous seasons
- Visits increased 90% between the week of Aug 27-Sep 2 and the week of Sep 17-23

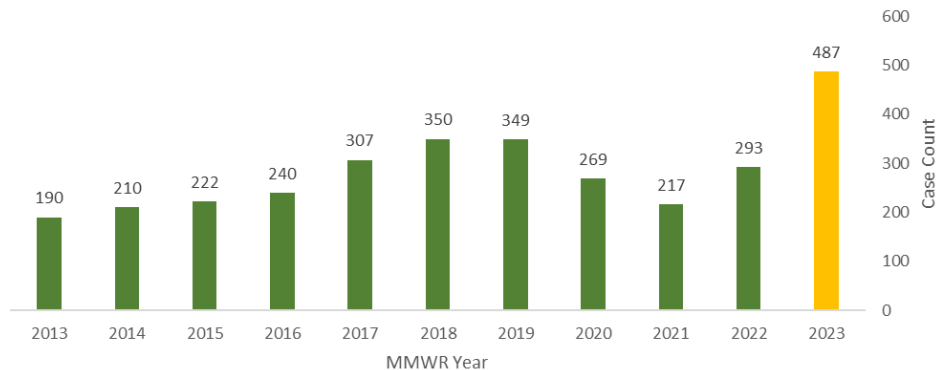
Respiratory Syncytial Virus (RSV) Immunization

- The U.S. Food and Drug Administration (FDA) approved, and CDC recommends two [RSV vaccines for adults aged ≥60 years](#) to prevent RSV related lower respiratory tract disease (LRTD).
- The FDA approved and the CDC recommends a [long-acting monoclonal antibody to protect all infants](#) from severe illness caused by RSV.
 - Infants aged <8 months old who are born during or entering their first RSV season are recommended to take the monoclonal antibody to protect themselves from severe RSV related disease.
 - Infants and children aged 8 –19 months who are entering their second RSV season and are at increased risk of severe RSV disease, are recommended to take the monoclonal antibody shot.
- The FDA also approved the first [RSV vaccine for use in pregnant individuals](#) to prevent lower respiratory tract disease (LRTD) and severe LRTD caused by RSV in infants from birth through 6 months of age but hasn't been recommended by CDC yet.

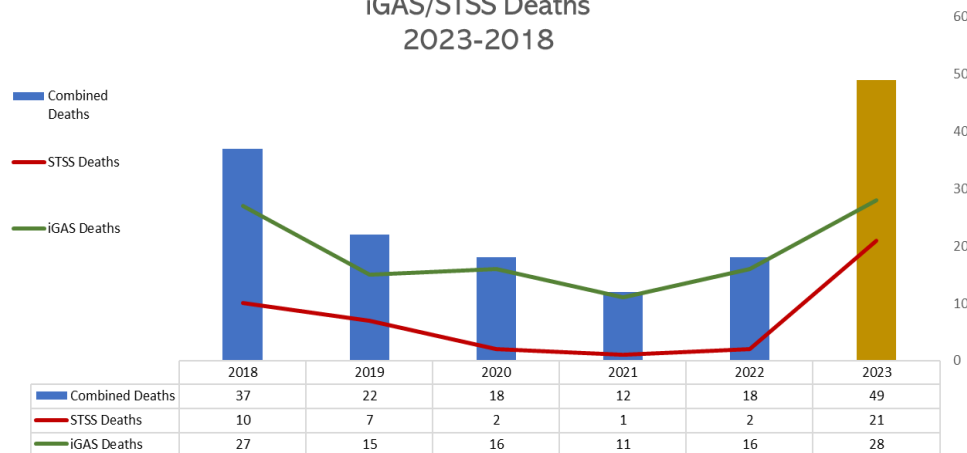
Invasive Group A Strep

- For 2023, there have been 482 cases of iGAS/STSS in Virginia. The highest year for the past decade.
- Nationally, the case fatality rates for iGAS is about 12% and for STSS may exceed 50%¹.
- In Virginia during 2023, the case fatality rate for STSS has been 53%. The fatality rates for iGAS have remained consistent over the past 5 years at 6%.

iGAS/STSS Cases
(2023-2018)



iGAS/STSS Deaths
2023-2018

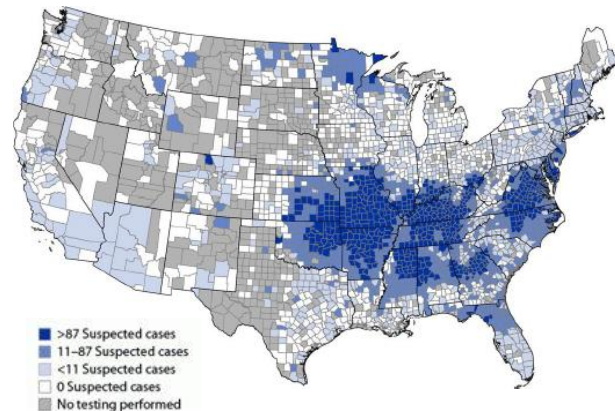


Alpha-Gal Syndrome

Alpha-gal Syndrome

- An emerging allergic condition that develops after a tick bite (also called red meat allergy)
- Primarily associated with the bite of a lone star tick
- VDH has secured funding to increase our capacity to review AGS associated laboratory results
- Seeking additional funds to enhance our capacity to better characterize AGS burden and trends in Virginia

Geographic distribution of suspected alpha-gal syndrome cases* per 1 million population per year — United States, 2017–2022



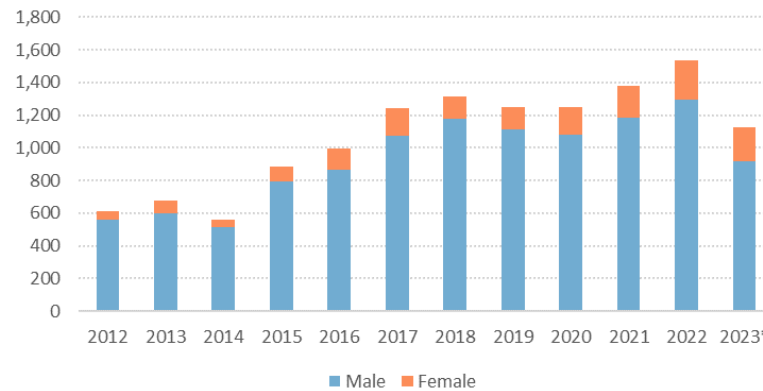
<https://www.cdc.gov/mmwr/volumes/72/wr/mm7230a2.htm>

Sexually Transmitted Infections

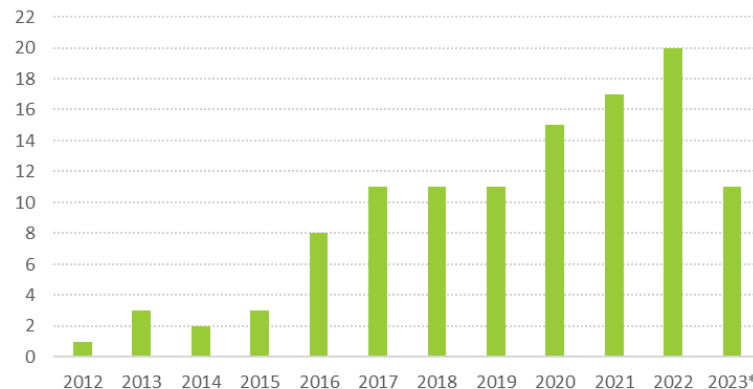
Syphilis

- Early **syphilis cases have increased substantially** in Virginia and nationally
 - Rates increased 9% from 2021 to 2022
 - Rates among women increased 25% from 2021 to 2022
- **Congenital syphilis cases increased to 20 in 2022**
- In **2023 so far:**
 - **Early syphilis cases increased 25% compared to 2022 levels**
 - Self-reported substance use increased 42%
 - Congenital syphilis cases diagnosed: 11
- **Bicillin L-A national shortage** also impacts Virginia providers
- Clinician letters with guidance and updates from [3/2](#) and [6/22](#)

Early Syphilis



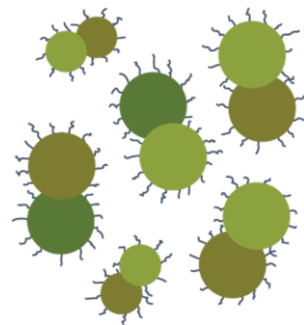
Congenital Syphilis



*Data as of 8/22/23

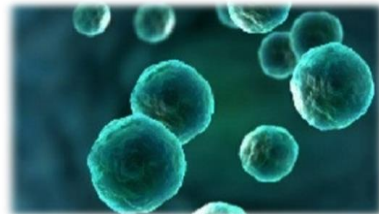
Antibiotic-Resistant Gonorrhea

- CDC estimates that **1.6 million** new gonorrhea infections occur each year, half of which are resistant to at least one antibiotic
- Only one recommended gonorrhea treatment option remaining
- [Two gonococcal infections with concerning results identified in Massachusetts](#) in January 2023
- No cases identified in Virginia yet
- Identification of treatment failures is essential
- Guidance to clinicians available from [VDH](#) and [CDC](#)



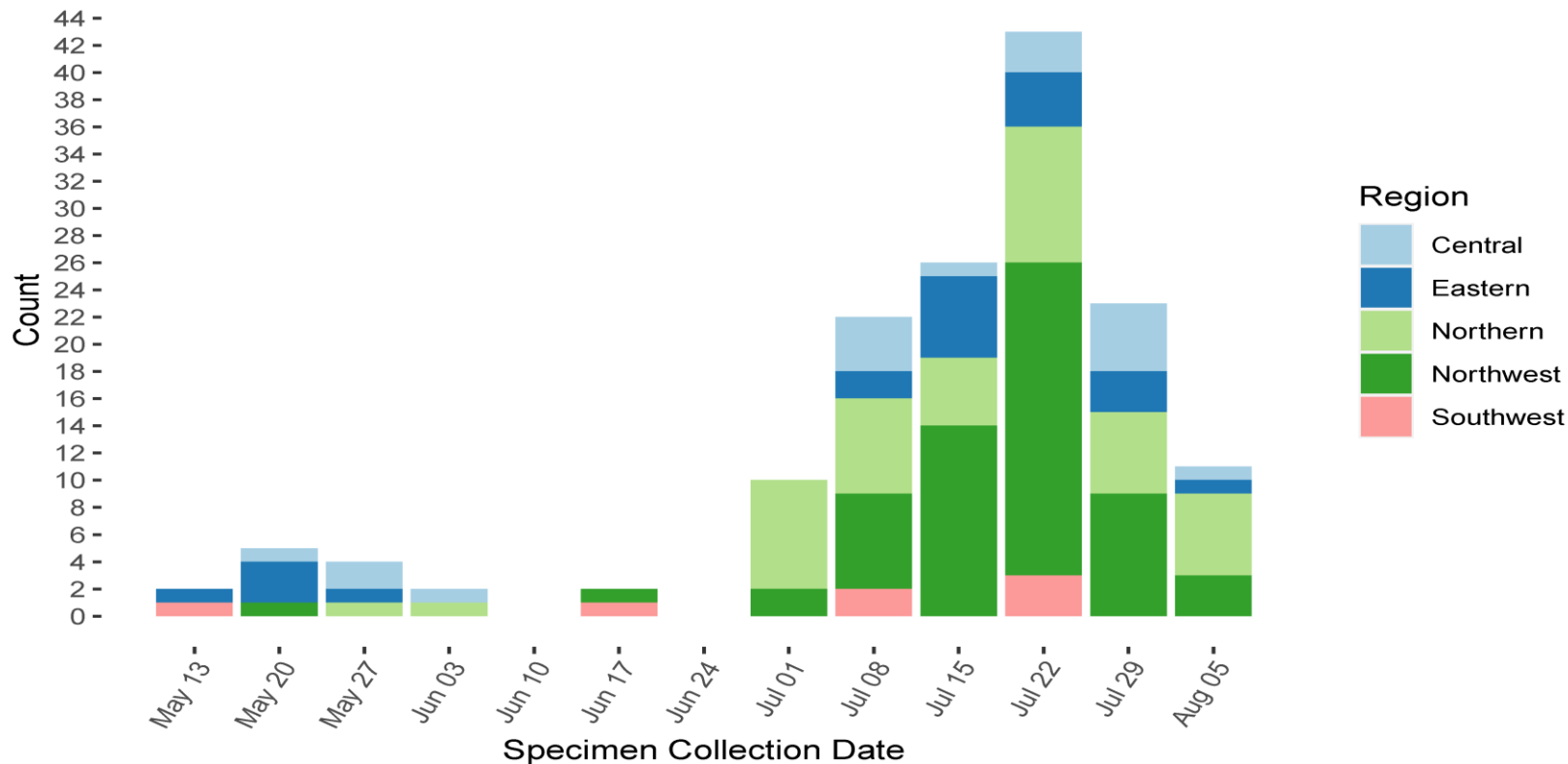
Increase in Cyclosporiasis Cases

Cyclosporiasis Investigation



- A recent increase in domestically-acquired cases of cyclosporiasis, an intestinal illness caused by the parasite *Cyclospora*, has been detected in Virginia
- **136** cases reported to VDH since July 1st
- Most cases reside in the Northwest region
- Case counts by region (as of 8/11/23):
 - Northwest (59), Northern (41), Eastern (16), Central (14), Southwest (6)
- The Foodborne Disease Epi Team is working with local health districts and The Virginia Department of Agriculture and Consumer Services (VDACS) to investigate the cause of these illnesses
- Conducting traceback investigations for specific produce items
 - Results pending
- A definitive food vehicle has not yet been identified
- Investigation is ongoing

Cyclosporiasis Cases by Week-Ending Date, May 2023–Present



As of 8/9/2023

Salmonellosis Foodborne Outbreak Investigation

Outbreak Background



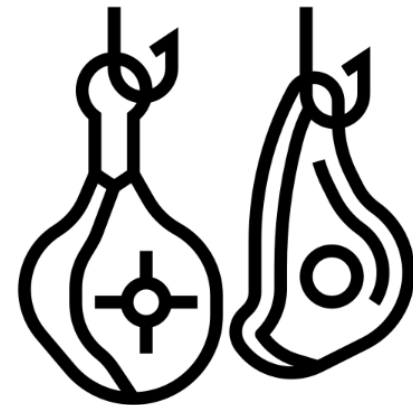
- The Arlington Health District and The Virginia Department of Health (VDH) Central Office are currently investigating a foodborne outbreak of salmonellosis
- Environmental Health investigation revealed the establishment had received meat from an unapproved source
 - This meat was served raw
- Arlington and VDH are working closely with the Virginia Department of Agriculture and Consumer Services (VDACS), The Virginia Rapid Response Team (VA RRT), and the Maryland Department of Health on this investigation

Outbreak Investigation

- Ill persons report consuming raw or undercooked meat dishes at a food establishment in Arlington, Virginia
- Illnesses began on 7/27/2023
- Outbreak was detected on 7/31/2023

Case information (as of 8/11/2023):

- 77 cases with known exposure to food from the restaurant
 - 36 laboratory confirmed with *Salmonella* infection
 - 41 epi-linked and symptomatic
- LHDs: Arlington, Alexandria, Fairfax, Prince William, Chesterfield
- Cases identified reside in 5 states (DC, MD, MO, NV, WA) and the United Kingdom
- Investigation is ongoing



Meningococcal Disease Type Y Statewide Outbreak

Meningococcal Disease Type Y








VDH is monitoring a statewide outbreak of meningococcal disease type Y:

- 27 cases have been reported in eastern, central, and southwest Virginia since June 2022, including 5 deaths. This is three times the expected number of meningococcal disease cases in this time period.
- Most cases (20) are linked to the regional outbreak in eastern Virginia identified in September 2022.
- The majority of case-patients are African American adults between 30-60 years of age.
- No common risk factor has been determined; however, DNA sequencing of all available isolates (22 out of 27) confirmed the cases are highly genetically related.


VDH Response

- VDH is recommending meningococcal conjugate vaccine (MenACWY) to close contacts ≥ 11 years of age, in addition to post-exposure prophylaxis antibiotics.
- Local health departments are working to raise awareness of this situation and providing meningococcal conjugate vaccine (MenACWY), free of charge, to persons considered to be at increased risk for meningococcal disease (e.g., people with HIV) in communities where an outbreak-associated case has been reported.
- VDH distributed a clinician letter and press release on August 30 to increase awareness of this concerning trend and promote opportunities for accessing MenACWY vaccine.

Meningococcal disease is a potentially deadly bacterial infection.

<p>It is mainly caused by 5 types of meningococcal bacteria: A - B - C - W - Y.</p> <p>The outbreak in Virginia is caused by type Y.</p>	<p>Symptoms can come on fast and include:</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  HIGH FEVER </div> <div style="text-align: center;">  STIFF NECK </div> <div style="text-align: center;">  VOMITING </div> <div style="text-align: center;">  PURPLE, DARK BROWN OR BLACK RASH </div> <div style="text-align: center;">  HEADACHE & ALTERED MENTAL STATE </div> <div style="text-align: center;">  MUSCLE ACHES </div> </div>	<div style="text-align: center;">  24 HOURS </div> <p>It can kill in as little as 24 hours or cause permanent complications: brain damage, hearing loss, learning disabilities or limb amputations.</p>
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Contact your local health department at (804) 864-8141 or visit vdh.virginia.gov to learn more.



Candida auris Update

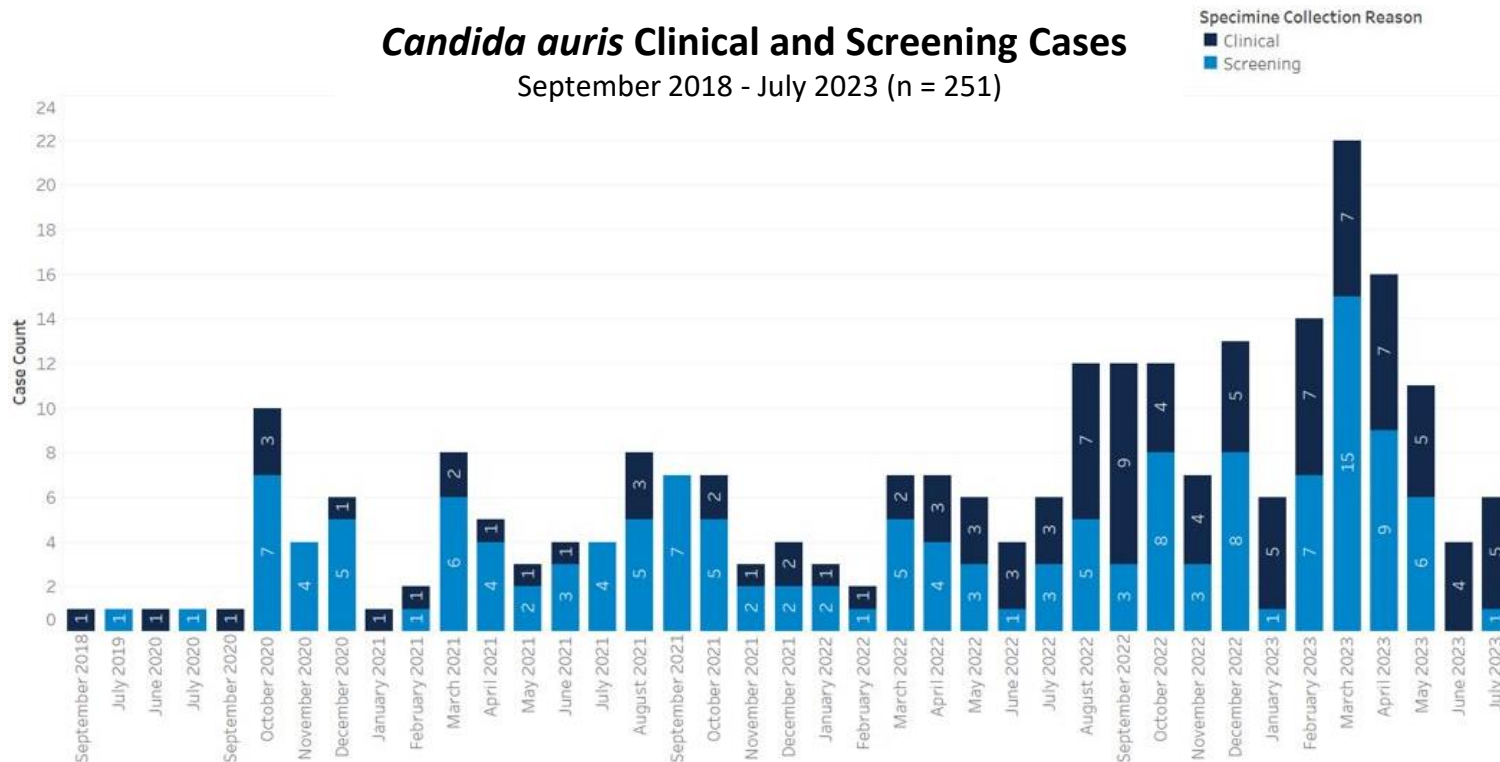
Candida auris

- Added to [Virginia Reportable Disease List](#) November 2018
 - Virginia [HAI/AR Program](#)
- Concerning drug resistance
 - 98% of Virginia isolates tested at CDC regional lab were resistant to azoles
- Outbreaks in healthcare settings
 - Person-to-person transmission
 - Persists on surfaces in healthcare environments
 - Must use [EPA List P](#) disinfectant product
- Persons can stay colonized for months to years
 - Infection prevention and control measures applied for duration of person's life

Candida auris cases continue to increase

Candida auris Clinical and Screening Cases

September 2018 - July 2023 (n = 251)



Data are preliminary for July 2023

***C. auris* Response**

- Situation updates provided in clinician letters
 - [March 2023](#), [May 2021](#), [August 2019](#)
- Local health departments and regional staff work with healthcare facilities to help slow the spread
 - Healthcare investigation at facilities where the person is currently admitted to and at facilities where the patient had an overnight stay in the past 30 days
 - Infection prevention and control assessments at healthcare facilities with direct observation of practices such as donning and doffing PPE, adherence to hand hygiene, disinfection and cleaning protocols
 - Screening close healthcare contacts to determine if transmission occurred
 - Requesting laboratories to conduct prospective and retrospective surveillance

Fungal Meningitis Outbreak Related to Medical Tourism

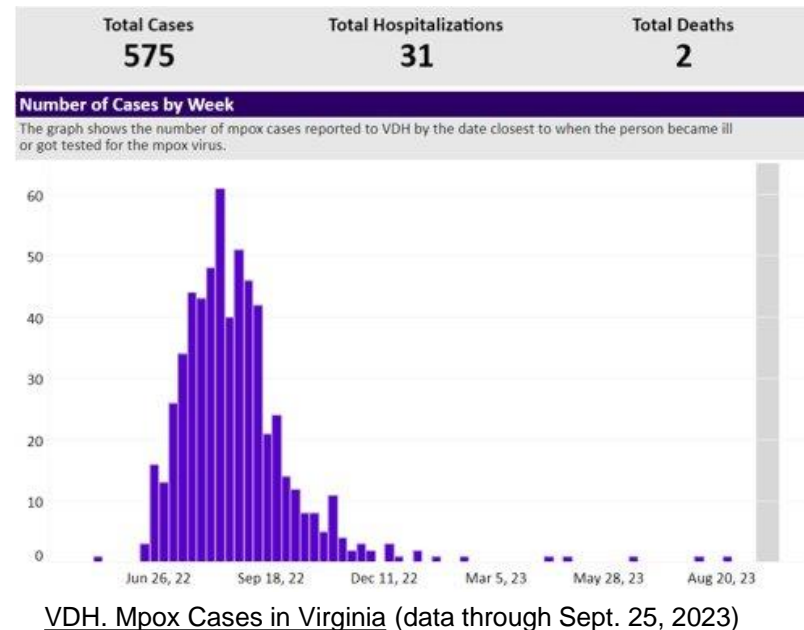
Medical Tourism - Fungal Meningitis Outbreak Among U.S. Residents

- Fungal meningitis outbreak among U.S. residents after medical/surgical procedures performed under epidural anesthesia in Matamoros, Mexico
 - All patients, regardless of symptoms, who received procedures under epidural anesthesia at River Side Surgical Center or Clinica K-3 since January 2023 should be evaluated for fungal meningitis including a lumbar puncture or spinal tap and MRI of the brain
 - Immediately report possible fungal meningitis cases possibly related to this outbreak to [local health department](#)
- Resources
 - CDC [COCA Call](#) June 8, 2023
 - CDC [HAN Health Update](#) June 1, 2023
 - CDC [HAN Health Advisory](#) May 17, 2023
 - CDC [Travel Health Notice](#) May 16, 2023
 - Risks related to [medical tourism](#) including infections and antimicrobial resistance
 - CDC Yellow Book 2024 [Medical Tourism](#)

2022 – 23 Mpox Outbreak

Mpox Outbreak

- Overall risk is low, but mpox still spreading from person to person. As of September 18, 2023:
 - Globally, 23 countries with cases in last 21 days
 - 7-day average of daily U.S. cases in past 21 days is 1.4, upticks in Chicago and Los Angeles
 - In Virginia, 9 cases reported in 2023 with most recent case reported in week ending August 26
- JYNNEOS vaccine is safe and effective, but 2-dose coverage in U.S. people at risk ~ 27% as of Jan 1
- Pride events in Virginia continue through October
- Priorities are to provide outreach for communities and HCPs, increase vaccination coverage and accessibility, conduct timely investigation and surveillance, and integrate services into routine care



Heat-Related Illness

Heat-Related Illness ED and Urgent Care Visits

Daily HRI (Visit Counts) in Virginia, 2023 (Total HRI Visits = 2,644)

Data through Sep 25, 2023

