



US VIRGIN ISLANDS DEPARTMENT OF HEALTH

Epidemiology Division *2024 Annual Report*



Message from the Commissioner

As Health Commissioner, I am honored to present, alongside Dr. Esther Ellis, an update on the health and well-being of our community through the 2024 Epidemiology Report. Health is the foundation of a vibrant community, and it is a shared responsibility to ensure it remains strong. This year's report highlights the exceptional work of the Epidemiology Division and its significant contributions to strengthening our public health infrastructure. Over the past year, we have made notable progress in several areas:

- The development and launch of a public data dashboard, enhancing transparency and access to crucial health information.
- Expanded services for mosquito prevention and dengue outbreak response, prioritizing the health and safety of our communities.
- Increased collaborations with healthcare centers, schools, and local organizations to promote preventive care and educational outreach.

Along with these achievements, we continue to address critical challenges, including disparities in access to care, rising rates of diabetes and obesity, and the increasing need for mental health and counseling services. I invite all Virgin Islanders to actively engage in supporting public health. Whether by attending community events, staying current on vaccinations, or simply offering support to a neighbor, every action contributes to a healthier future. Together, we can make a lasting difference and ensure that our community remains a healthy and thriving place for everyone. Thank you for your ongoing partnership and commitment to public health.

Justa "Tita" Encarnacion, RN, BSN, MBA/HCM



Justa Encarnacion
Health Commissioner
Virgin Islands Department of Health

Message from the Director

As the Territorial Epidemiologist, I am pleased to present the 2024 Epidemiology Report, which provides a comprehensive overview of reportable disease trends observed across our territory, plus an overview of the year's major achievements for the Epidemiology Division. This report serves as both a reflection on the health challenges we faced over the past year and a guiding document for data-driven public health interventions in the year ahead. Disease surveillance remains the cornerstone of effective public health practice. By systematically collecting, analyzing, and interpreting health data, we can identify emerging threats, monitor ongoing disease trends, and evaluate the impact of our prevention and control strategies. In 2024, USVI faced both familiar and emerging health challenges, such as persistent respiratory illnesses like COVID-19 and influenza and the onset of a dengue outbreak, underscoring the need for continued vigilance and proactive response. This report is the result of collaborative efforts across multiple agencies, healthcare providers, and community partners. Their contributions to timely reporting, data accuracy, and response coordination are invaluable, and I extend my gratitude to all stakeholders who have played a role in this essential work. Looking ahead, we must continue to strengthen our surveillance infrastructure, invest in local workforce capacity, and enhance community engagement to build a resilient public health system capable of addressing future challenges. I invite you to explore the findings of this report and join us in our commitment to safeguarding the health and well-being of our communities.

Esther M. Ellis, PhD



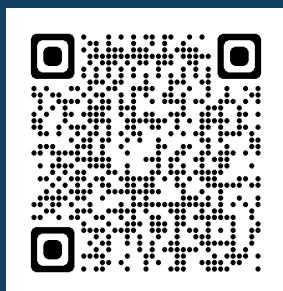
Dr. Esther Ellis
Territorial Epidemiologist,
Director,
Epidemiology Division
Virgin Islands Department of Health



Ms. Jade Bernadel during her oral presentation on pediatric lead in blood surveillance in USVI at the CSTE Annual Conference in Pittsburgh, Pennsylvania, June 2024.



Ms. Anellie Gumbs (right) provides resident education about mosquito prevention during dengue outbreak response activities, St. Thomas, USVI, October 2024.



To access previous VIDOHI-EPI reports:
<https://bit.ly/epivi-reports>

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The Epidemiology Division (VIDOH-EPI)

The Virgin Islands Department of Health, Epidemiology Division (VIDOH-EPI) conducts surveillance of nationally notifiable diseases (NNDs) needed for disease monitoring, analysis, and timely reporting of findings to guide public health policy and decision-making. The VIDOHI-EPI and the Public Health Laboratory (PHL) are funded through the Epidemiology and Laboratory Capacity for Prevention and Control of Emerging Infectious Diseases Cooperative Agreement from the U.S. Centers for Disease Control and Prevention (CDC).

Forms and Resources

- VIDOHI-EPI [website](#).
- VIDOHI-EPI [Data Dashboard](#).
- General surveillance forms at [VIDOH-EPI general surveillance forms](#).
- Vaccine preventable diseases investigation forms at [VPD surveillance forms](#).
- Job aids for clinicians on collecting the correct specimens for enhanced surveillance of vaccine preventable diseases at [specimen guidance](#).

Sociodemographic Characteristics of the U.S. Virgin Islands (USVI)

The U.S. Virgin Islands is a U.S. territory located between the Atlantic Ocean and the Caribbean Sea, consisting of four major islands: Saint Croix (STX), Saint Thomas (STT), Saint John (STJ), and Water Island (WI). The USVI covers approximately 133 square miles of combined land area (approximately twice the area of the District of Columbia). USVI is located 40-50 miles east of Puerto Rico and extends from west to east ~60 miles at the top of the arc of the other Caribbean Islands. Compared to the U.S. Census Bureau 2010 Decennial Census of Island Areas (DECIA) for USVI*, the 2020 DECIA indicated that the population of the USVI decreased by 19,259 (-18.1%) residents for a remaining total of 87,146 residents. This decrease differed by island. STX reported a decrease of 9,957 (-19%) residents, STT reported a decrease of 9,373 residents (-18.2%), and STJ reported a decrease of 289 (-6.9%) residents.

Race and Ethnicity: In 2020, the racial distribution of USVI included 67,769 (77.8%) residents identifying as Black or African American, 11,584 (13.3%) residents as White, 910 (1.0%) residents as Asian, 371 (0.4%) residents as American Indian and Alaskan Native, 51 (0.1%) residents as Native Hawaiian or Other Pacific Islander, 5,478 (6.3%) residents as some other race, and 6,569 (7.5%) residents as two or more races. A total of 16,075 (18.4%) residents identified as having Hispanic ethnicity. Approximately 1/3 of the population is foreign-born with familial and cultural ties elsewhere, primarily in the Caribbean.

Current Sex: In the 2020 DECIA, approximately 49% of the USVI population were reported as male sex and 51% were reported as female sex.

Insurance: Of the 84,630 persons reported by households in the 2020 DECIA, the number of individuals without insurance was 20,825 (24.6%). Of the 63,805 (75.4%) insured individuals, 46.6% had private health insurance and 37.2% had medical assistance. The proportion of uninsured persons in the USVI in 2020 (24.6%) was almost three times the national estimate for uninsured persons (8.6%) in 2020.

Educational Attainment

In 2020, 38.8% of residents ≥ 25 years had at least a high school diploma, while only 22.3% had a bachelor's degree or higher.

Language: According to the 2020 DECIA, 69.8% of USVI residents ≥ 5 years spoke only English at home. Of the 30.2% who reported speaking another language at home, 56.9% spoke Spanish, 29.3% spoke French Creole, and 13.8% spoke a language other than Spanish or French Creole.

Household Income: In 2019, the median household income in the USVI was \$40,408 (in 2019 inflation-adjusted dollars), which is considerably lower than the U.S. median household income of \$67,521, and lower than the USVI household median income in 2009 of \$44,499. A greater proportion of USVI households have a household income of $< \$25,000$ per year compared with the overall U.S. (32.9% vs 18.1%). In 2020, the unemployment rate for USVI was 9.7%.

Country of Birth: In 2020, 47% (39,916) of the USVI population were born in USVI, 18.1% (15,396) of residents were born in the U.S. or other U.S. island area or Puerto Rico, and 34.8% (29,579) of residents were born elsewhere (predominantly in Latin American or the Caribbean).

Children: In 2020, there were 17,086 children in the U.S. Virgin Islands, comprising approximately 20% of the total population. For more information specific to children in the U.S. Virgin Islands, please access the St. Croix Foundation's KIDS COUNT USVI 2024 Data Spotlight†: https://www.flipsnack.com/5A76ADFF8D6/2024-kids-count-usvi-data-spotlight_stxfoundation/full-view.html.

* Reference: U.S. Census Bureau (2022). 2020 Island Areas Censuses: U.S. Virgin Islands.

† Reference: St. Croix Foundation for Community Development (2024). KIDS COUNT 2024 Data Spotlight, Answering the Call: We are the System and the Solution.

SNAPSHOTS 2024

VIDOH-EPI



Data Dashboard:

During 2024, VIDOH-EPI worked to develop, implement, and launch a public-facing, interactive, web-based tool for data visualization. The dashboard was implemented by VIDOH-EPI's Data Team utilizing Posit and GIS hosting and advanced programming techniques. The dashboard features customizable data visualizations for diseases reported to and investigated by VIDOH-EPI including dengue viral infection, COVID-19, and influenza, plus wastewater surveillance data which helps to identify trends in community-associated respiratory infections and high-risk substances. The dashboard is important to increase public awareness, strengthen community engagement, promote prevention programming, and help reduce the general burden of disease in the territory by displaying the number of disease cases that were reported to VIDOH-EPI over time. For some notifiable diseases, case status can be delineated into confirmed, probable, and suspected, as defined by VIDOH-EPI.

VIDOH-EPI
Data Dashboard
QR Code



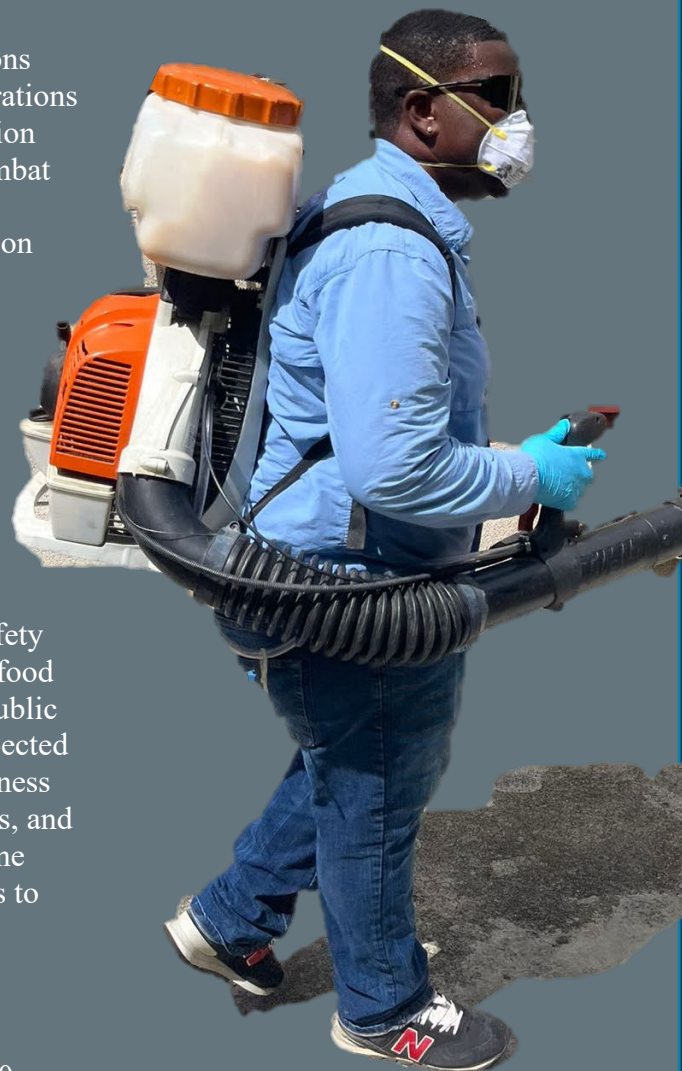
Dengue Outbreak Response Activities:

In response to an uptick of USVI dengue virus infections during 2024, VIDOH-EPI quickly established collaborations with the U.S. Centers for Disease Control and Prevention (CDC) and the Puerto Rico Vector Control Unit to combat the outbreak by inspecting residential areas, applying larvicides in high-risk zones, and educating the public on preventing mosquitos. VIDOH-EPI also launched a Dengue Hotline to provide residents with information on protecting against and preventing transmission of dengue. Residents could also use the Dengue Hotline to request residential mosquito control services.

Food Safety Hotline:

In April 2024, VIDOH-EPI, in collaboration with the Environmental Health Division, launched the Food Safety Hotline dedicated to promptly addressing the public's food safety concerns. The Food Safety Hotline allows the public to report any issues related to food safety, such as suspected food poisoning, contamination concerns, foodborne illness outbreaks, unsanitary conditions in food establishments, and unsafe food handling practices. The Food Safety Hotline provides a direct line of communication for individuals to report incidents, enabling us to respond quickly and effectively to protect consumers.

To report a suspected case of foodborne illness, please contact the Food Safety Hotline at (340) 725-5389 or (340)774-7477 ext. 5647, Monday through Friday, 8:30 a.m. to 5 p.m.



USVI Notifiable Conditions

Category A

Acute Flaccid Myelitis
Anthrax
Botulism
Brucellosis
Cholera
Coronavirus (novel, including SARS)
CP-CRE
Diphtheria
E.coli (O 157)
Encephalitis
Enterovirus D-68
Foodborne Outbreak
Haemophilus influenzae
Influenza (novel and seasonal)
Legionellosis
Measles
Meningitis
Pertussis
Plague
Poliomyelitis
Rabies
Rubella
Q Fever
Smallpox
Tuberculosis
Tularemia
Typhoid
Typhus
Viral Hemorrhagic Fever (including Dengue, Ebola, and Zika)
Waterborne Outbreak
West Nile
Yellow Fever

Category B

Anaplasmosis
Chancroid
Chlamydia
Ciguatera
Ehrlichiosis
Gonorrhea
Hansen's Disease
Hanta Virus Pulmonary Syndrome
Hemolytic Uremia Syndrome
Hepatitis A
Hepatitis B
Hepatitis C
HIV/AIDS
Malaria
Psittacosis
S. aureus (drug resistant)
Streptococcus pneumoniae
Syphilis
Trichinosis
Vancomycin Resistant *Enterococcus* (VRE)
Vancomycin Intermediate/Resistant *S.aureus* (VISA, VRSA)

Category C

Babesiosis
Campylobacter
Chickenpox (Varicella)
Coccidiomycosis
Cryptosporidiosis
Cyclosporiasis
Giardia
Listeriosis
Lyme Disease
Mumps
Salmonellosis
Shigellosis
Spotted Fever
Tetanus
Toxic Shock Syndrome

Disease Reporting in the USVI

Overview

The reporting of Nationally Notifiable Diseases (NNDs) to VIDOH by healthcare providers is required by law in the USVI. The current list of USVI Notifiable Conditions can be accessed [here](#)  (left panel).

Diseases are reported using two primary forms, the [Notification of Infectious Diseases Form \(EPI-1\)](#)  and the [Dengue, Chikungunya, Zika, and Febrile Illness Reporting Form \(EPI-2\)](#) . The EPI-1 form is included on the next page for immediate referral. Additionally, VIDOH-EPI uses disease-specific surveillance and investigation forms for case-based investigation requirements of all NNDs.

What

In addition to NNDs, any outbreaks, exotic diseases, and unusual group expression of disease must be reported. All diseases require the reporting of patient information, including name, age, sex, race/ethnicity, date of birth, address and estate, telephone number, disease, date of onset, and symptomology. Other required information includes the method of diagnosis, laboratory result (if applicable), date of diagnosis, as well as the name, address, and telephone number of the reporting health care provider.

When

Cases or suspected cases of illness considered to be public health emergencies, outbreaks, exotic diseases, and unusual group expression of disease must be reported to the VIDOH immediately (**Category A**). Other diseases for which there must be a quick public health response must be reported within two working days (**Category B**). All other conditions must be reported within four working days (**Category C**).

How

Reporting forms can be downloaded from the VIDOH [website](#); complete forms can be faxed to Territorial Epidemiology Fax at 1-888-400-8620 or securely emailed to epi@doh.vi.gov. **In case of emergency (Category A, select Category B conditions or major outbreak/incident), reports can be made by telephone to the Territorial Epidemiologist at (340) 626-1654 as indicated in the EPI-1 form instructions.**

Summary

- Disease reporting of notifiable diseases to VIDOH is required by law in the USVI.
- Unusual diseases or outbreaks of any kind should be reported immediately.
- Report diseases by following the instructions in the EPI-1 or EPI-2 forms. These and all investigation forms can be downloaded [here](#).

EPI-1

Revised August 2020



Notification of Infectious Disease Form

Emergency Phone: (340) 626-1654, **Territorial Epidemiology Fax: 1-888-400-8620**

Fax HIV/STD reports to the Communicable Diseases Division Fax: 1-612-712-7878



This form may be used to *report suspected cases and cases of notifiable conditions* in the US Virgin Islands (USVI), listed with their reporting time frames on the current USVI Notifiable Conditions List 2020. In addition, any outbreak, exotic disease, or unusual group expression of disease that may be of public health concern should be reported by the most expeditious means available. A Health Department epidemiologist will contact you if further investigation is required.

Source of Information: ☐ Private Physician ☐ Private Laboratory ☐ Hospital ☐ Clinic ☐ School		Date of Report: _____ (mm/dd/yyyy)		Island: ☐ St. Croix ☐ St. John ☐ St. Thomas ☐ Water Island	
Name of Physician or Person Reporting		Physician/Reporter Address		Physician/Reporter Phone (_____) _____ - _____ extension _____	
Admitted to Hospital? ☐ No ☐ Yes		Date Admitted: _____ Date Discharged: _____		Disease Fatal? ☐ No ☐ Yes Date of Death: _____	
Patient Name (Last)		(First)		(MI)	
Address (indicate ESTATE)		City		State	
Date of Birth (mm/dd/yyyy)		Age		Zip Code	
Gender: ☐ M ☐ F ☐ Other		Ethnicity: ☐ Hispanic ☐ Not Hispanic		Race: ☐ Black ☐ White ☐ Asian ☐ Unknown ☐ Other	
Telephone: (_____) _____ - _____ Other: _____					
Notes, comments, or additional information such as <u>pregnancy status (EDD), occupation (food handler), school name/grade, daycare facility, travel history</u>					

Category A -- Report IMMEDIATELY to the USVI Department of Health

SERIOUS PUBLIC HEALTH RISK. Make an IMMEDIATE telephone report to the USVI Department of Health at 626-1654 then send the completed form IMMEDIATELY (within 24 hrs) by fax to 1-888-400-8620. If an immediate report is required after regular working hours, please call 626-1654.

- | | | | | | |
|---|---|--|--|---|--|
| ☐ Acute Flaccid Myelitis | ☐ CP-CRE | ☐ Haemophilus influenzae | ☐ Pertussis | ☐ Smallpox | ☐ Waterborne Outbreak |
| ☐ Anthrax | ☐ Diphtheria | ☐ Influenza, novel and seasonal | ☐ Plague | ☐ Tuberculosis | ☐ West Nile |
| ☐ Botulism | ☐ E. coli (O157) | ☐ Legionellosis | ☐ Poliomyelitis | ☐ Tularemia | ☐ Yellow Fever |
| ☐ Brucellosis | ☐ Encephalitis | ☐ Measles | ☐ Rabies | ☐ Typhoid | |
| ☐ Cholera | ☐ Enterovirus D-68 | ☐ Meningitis | ☐ Rubella | ☐ Typhus | |
| ☐ Coronavirus, novel, including SARS | ☐ Foodborne Outbreak | | ☐ Q Fever | ☐ Viral Hemorrhagic Fever, including Ebola | |

Category B -- Report WITHIN 48 HOURS to the USVI Department of Health

SIGNIFICANT PUBLIC HEALTH RISK. These should be reported within 48 hours to the USVI Department of Health. A completed copy of the form must be faxed to 1-888-400-8620. A telephone report to 626-1654 is only required for those diseases indicated by the (*).

- | | | | |
|---------------------------------------|--|---|---------------------------------------|
| ☐ Anaplasmosis | ☐ Hansen's Disease* | ☐ HIV/AIDS | ☐ Trichinosis |
| ☐ Chancroid | ☐ Hanta Virus Pulmonary Syndrome* | ☐ Malaria | Vancomycin Resistant: |
| ☐ Chlamydia | ☐ Hemolytic Uremic Syndrome | ☐ Psittacosis | ☐ Enterococcus |
| ☐ Ciguatera | ☐ Hepatitis A* | ☐ Staph. aureus (drug resistant) | ☐ Staph |
| ☐ Ehrlichiosis | ☐ Hepatitis B | ☐ Streptococcus pneumoniae | |
| ☐ Gonorrhea | ☐ Hepatitis C | ☐ Syphilis* | |

Category C -- Report PROMPTLY WITHIN 96 HOURS to the USVI Department of Health

Should be reported promptly to the USVI Department of Health. A completed form must be faxed to 1-888-400-8620.

- | | | | | | |
|---|---|---------------------------------------|--|---|------------------------------------|
| ☐ Babesiosis | ☐ Coccidioidomycosis | ☐ Giardiasis | ☐ Mumps | ☐ Spotted Fever | ☐ Vibriosis |
| ☐ Campylobacter | ☐ Cryptosporidiosis | ☐ Listeriosis | ☐ Salmonellosis | ☐ Tetanus | |
| ☐ Chickenpox (varicella) | ☐ Cyclosporiasis | ☐ Lyme Disease | ☐ Shigellosis | ☐ Toxic Shock Syndrome | |

☐ Other disease, please specify: _____

Diagnosis Status

☐ Suspect Case ☐ Confirmed Case

Diagnostic Criteria:

☐ Symptoms ☐ Laboratory

Clinical Information

Treatment Provided? ☐ No ☐ Yes Specify Treatment: _____

Earliest Symptom Onset Date: _____

(mm/dd/yyyy)

Clinical Symptoms: _____

Laboratory Results:

Date 1 (mm/dd/yyyy)

Test Name 1

Result 1

Date 2 (mm/dd/yyyy)

Test Name 2

Result 2

Date 3 (mm/dd/yyyy)

Test Name 3

Result 3

Information collected is confidential pursuant to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and reports will be maintained by the US Virgin Islands Department of Health. All reports other than HIV should be faxed to Dr. Esther Ellis at 718-1508 (Charles Harwood Complex, 3500 Estate Richmond, Christiansted, St. Croix, VI 00820). HIV/STD reports should be forwarded to the HIV/STD Program at secure fax 1-612-712-7878. PLEASE NOTE: THE REPORTING OF NOTIFIABLE DISEASES TO THE DEPARTMENT OF HEALTH IS REQUIRED BY LAW IN THE US VIRGIN ISLANDS. Fulfilling this requirement will by no means negate your responsibility to report similar information to other agencies or programs with which you have collaborative agreements.

Disease Surveillance and Trends in the USVI

VIDOH-EPI Report Overview

This report provides a summary of all nationally notifiable diseases/conditions reported to VIDOH-EPI in 2024 by program area. A list of all reported case counts identified as confirmed or probable can be found in Table 1. This report excludes cases under the jurisdiction of the Communicable Diseases Division: sexually transmitted infections, human immunodeficiency virus, and tuberculosis/latent tuberculosis infection.

Table 1:
2024 Reported Case Counts
for Nationally Notifiable Diseases

CONDITION	CASE COUNT
Campylobacteriosis	2 confirmed
Dengue	215 confirmed, 5 probable, 3 suspect
Giardiasis	2 confirmed
Hepatitis B virus, acute	4 confirmed or probable
Hepatitis B virus, chronic	4 confirmed
Hepatitis C virus, acute	8 confirmed
Hepatitis C virus, chronic or resolved	6 confirmed
Influenza	99 confirmed
Lead in blood	4 confirmed, 1 suspect
Legionellosis	5 confirmed, 1 probable
Listeriosis	1 confirmed
Novel Coronavirus (nCoV)	770 confirmed
Salmonellosis (excluding <i>S. typhi/paratyphi</i>)	7 confirmed
Varicella (Chickenpox)	4 confirmed

Vector-borne and Arboviral Diseases

Arboviral Diseases Overview

Arboviral diseases are caused by viruses transmitted through the bites of mosquitoes, ticks, or other arthropods. Examples include Zika, chikungunya, dengue, and yellow fever viruses. During 2016–2024, VIDOH-EPI utilized ArboNET, a specialized database for arboviral surveillance, in addition to VI-NEDSS surveillance, enabling us to enhance reporting in the territory. Following 2024 national and international trends, USVI experienced its first dengue outbreak in a decade. However, there were no reports of active cases of Zika, chikungunya, and yellow fever within the territory in 2024.

To respond to an ongoing dengue outbreak and to prevent other arboviral illnesses, VIDOH collaborated with other federal and territorial support to eliminate local mosquito breeding sites and provide public education. Continued collaborations with VIDOH-EPI, the VIDOH Vector Control Program, and other resources remain essential for the monitoring and early detection of disease threats and rapid response to rising infections. Assessments were conducted in response to several infection control concerns.



Mr. Aubrey Drummond, Vector Technician (left), receiving gratitude from resident after application of larvicide around private residence, St. Thomas, USVI, October 2024.



Ms. Andrea Jean-Baptiste (left) and Dr. Esther Ellis (right) attend the 2024 Public Health Infrastructure Grant (PHIG) meeting in San Diego, CA, May 2024.



Mr. Cosme Harrison performing door-to-door education about dengue prevention during dengue outbreak response activities on St. Thomas, USVI, October 2024.



Ms. Andra Prosper (left) and Ms. Yamilix Cruz (right) providing public education and distributing mosquito prevention materials during dengue outbreak response activities on St. Croix, USVI, November 2024.

Dengue

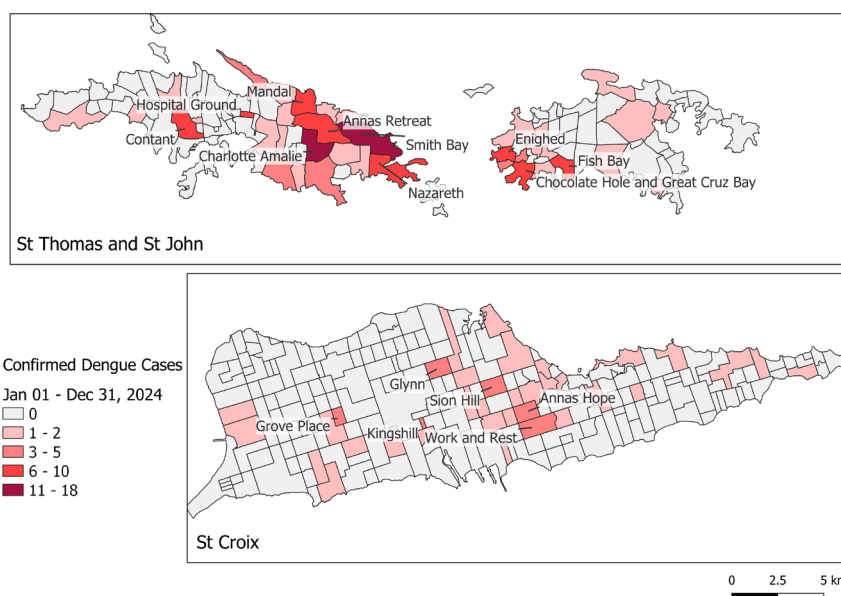
In 2024, the USVI experienced a major outbreak of dengue virus. Dengue virus is an arbovirus with 4 serotypes (DENV1–4) and spread by *Aedes* mosquitoes. Infection is often asymptomatic, but ~25% of patients experience febrile illness, 5% experience severe disease, and <1% die. The VIDOH investigated to assess the scale and geographic spread of the outbreak, identify gaps in surveillance, and implement enhanced surveillance measures and vector control strategies to prevent disease transmission.

We interviewed clinical partners to identify surveillance gaps and conducted clinical trainings to improve diagnostic testing. We used CSTE's case definitions for suspected and confirmed cases. We identified suspected cases by laboratory and clinical reporting to VIDOH-EPI. Confirmed cases were investigated to determine patient travel history, residence, and demographic information. We conducted community outreach to provide education, inspected household yards for mosquito breeding sites, and provided outdoor larvicide for standing water with *Bacillus thuringiensis* subsp. *israelensis* (*Bti*).

In total, 215 (2.5 cases/1,000 population) confirmed dengue cases were reported, including 105 (48.8%) on St. Thomas, 70 (32.6%) on St. Croix, and 40 (18.6%) on St. John (Figure 1). We determined 201 (93.5%) were locally acquired; 118 cases (54.9%) occurred during June–August. One patient died, a female aged 63 years with diabetes mellitus. Median patient age was 40 years (range: 2 months–91 years); 120 (55.8%) were female. We improved dengue surveillance by onboarding 11 healthcare clinics to the new electronic reporting platform, Beacon. We provided outreach, education, and mosquito prevention materials during 64 visits to schools or residential communities; 256 household yards were inspected to assess for treatment; 167 household yards and 9 schools were *Bti*-treated.

Surveillance improvements, community outreach, and vector control interventions were important parts of the VIDOH-EPI response.

Figure 1. Dengue virus infection hotspot map. USVI, 2024 (n=181).



Lead

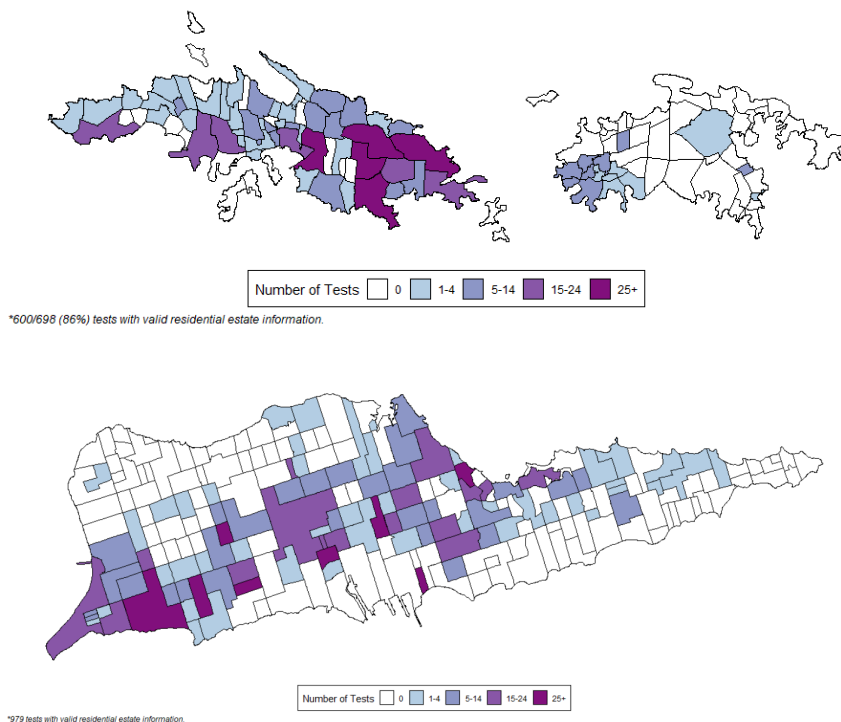
Following the 2023 VIDOH investigation and response activities for potential lead exposures in St. Croix, enhanced surveillance activities were expanded to the St. Thomas-St. John District in January 2024 as part of the VIDOH's Safe Haven–Lead-Free Families initiative. For more information on this initiative visit <https://doh.vi.gov/safe-haven>.

A blood lead test is the best way to determine if a child has been exposed to lead. Testing for blood lead first requires a positive capillary screening test, and, secondly, a confirmatory venous blood draw test ($\geq 3.3\mu\text{g/dL}$). After a blood lead case has been confirmed, a home assessment is conducted to identify possible lead exposure sources.

During January-February 2024, VIDOH staff performed pediatric lead screening at 15 St. Thomas-St. John District schools, totaling to 41 total screening sites across the Territory. At the 15 school sites, VIDOH-EPI conducted 698 capillary screening tests, totaling to 1,968 for the entire Safe Haven initiative (Figure 2). In 2024, VIDOH-EPI documented four confirmed and one suspected case of lead in blood. Home assessments identified potential sources of exposure to be tile flooring, paint located on items such as a mirror and hand railing, a cooking pot, and a child's toy.

VIDOH-EPI continues to perform surveillance of potential lead exposures across the Territory, offer home assessments to identify lead in homes, and provide guidance and support to families impacted by lead exposure.

Figure 2. VIDOH blood lead screening test performance hotspot map. USVI, 2023–2024.



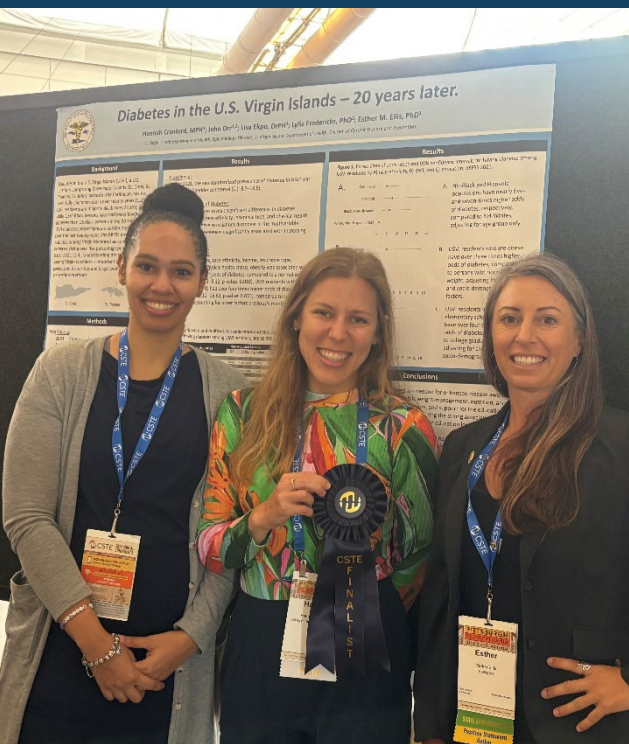
Ms. Yamilix Cruz (left) and Ms. Jade Bernadel (right) performing lead detection procedures during a home assessment on St. Croix, USVI, January 2024.



VIDOH Public Health Laboratory performed lead capillary testing for 1,968 local children during the Safe Haven initiative, USVI, January-February 2024.



Ms. Annellie Gumbs (left), Ms. Yamilix Cruz (back), and Ms. Monifa Carrillo (front) performing field-work during dengue outbreak response activities on St. Thomas, USVI, November 2024.



Dr. Lisa Ekpo, Dr. Hannah Cranford, and Dr. Esther Ellis (left to right) presenting their poster on USVI diabetes, a CSTE Poster Award finalist, at CSTE Annual Conference in Pittsburgh, Pennsylvania, June 2024.

Vaccine Preventable Diseases and Respiratory Diseases

Vaccine Preventable Diseases (VPDs)

For a complete list of VPDs click [here](#). During 2024, VIDOH-EPI investigated four confirmed cases of varicella. To report a suspected case of varicella, download and complete the VPD-22 form and submit to VIDOH-EPI:

The form is titled "Varicella Reporting and Investigation Form" and includes sections for Patient Information, Laboratory Information, Clinical Information, and Immunization History. It contains various checkboxes and fields for reporting a suspected case of varicella.

Download the varicella investigation form (VPD-22) [here](#).

COVID-19 Surveillance

During 2024, VIDOH-EPI detected a total of 770 COVID-19 cases with five COVID-19-related fatalities.

- 379 (49.2%) cases detected in STT and WI, with three fatalities.
- 371 (48.2%) cases detected in STX, with two fatalities.
- 20 (2.6%) cases detected in STJ.

Influenza Surveillance

VIDOH-EPI reports weekly to the U.S. Outpatient Influenza-like-Illness Surveillance Network (ILINet) which is used to produce a national weekly influenza surveillance report called FluView. For ILINet, Influenza-like-illness (ILI) is defined as a fever (temperature of 100°F [37.8°C] or greater) and a cough or sore throat without a known cause other than influenza. ILINet providers are key to the success of the Influenza Surveillance System. An ILINet provider conducts surveillance for ILI in collaboration with VIDOH-EPI and the CDC. Data reported by providers, in combination with other influenza surveillance data, provides a national picture of influenza virus and ILI activity in the territory and the U.S. During 2024, VIDOH-EPI investigated 99 confirmed cases of influenza: 17 cases for St. Croix, 74 for St. Thomas, and eight for St. John; this represents a 25-case increase compared with 2023. VIDOH-EPI received 1,121 reports of influenza-like-illness out of 72,629 patients seen for any reason, a 15,935 increase of patients seen for any reason compared with 2023. For questions regarding the Influenza Surveillance Program, please call (340) 514-8586 or email joy.joseph@doh.vi.gov.

Foodborne and Waterborne Diseases

During 2024, VIDOH-EPI investigations resulted in two confirmed cases of campylobacteriosis, two confirmed cases of giardiasis, one confirmed case of listeriosis, and seven confirmed cases of salmonellosis.

Legionellosis

During 2024, VIDOH-EPI identified five confirmed and one probable locally acquired cases of Legionellosis. Legionellosis is a bacterial infection transmitted through inhaling contaminated water vapor, such as from showers, air conditioners, or fountains. The key to preventing Legionellosis is to control *Legionella* bacteria growth and spread. Buildings and devices at increased risk for *Legionella* growth and spread should have a water management program based on industry standards. Owners of certain devices, like hot tubs, should take steps to reduce *Legionella* risk.

Hepatitis

Reported 2024 events reflect zero confirmed or probable cases of acute hepatitis A virus infection. There were three confirmed or probable cases of acute hepatitis B virus infection and 4 confirmed chronic hepatitis B virus infections. Furthermore, there were eight confirmed cases of acute hepatitis C virus infection and six confirmed chronic hepatitis C virus infections.

Healthcare-Associated Infections (HAI)

VIDOH leverages CDC's National Healthcare Safety Network (NHSN) as a critical tool for tracking and monitoring HAIs and other key healthcare-related patient safety and quality indicators. These data are reported by healthcare facilities, including acute care hospitals and dialysis centers. For 2024, NHSN reports include 31 dialysis events, three catheter-associated urinary tract infections (CAUTI), and one skin and soft tissue (SST) infection. The most commonly isolated pathogens contributing to infection were *Escherichia coli* (n=2), followed by *Providencia alcalifaciens* (n=1), *Acinetobacter baumannii* (n=1), *Enterococcus faecalis* (n=1), and *Klebsiella pneumoniae* (n=1).

Other Notifiable Conditions

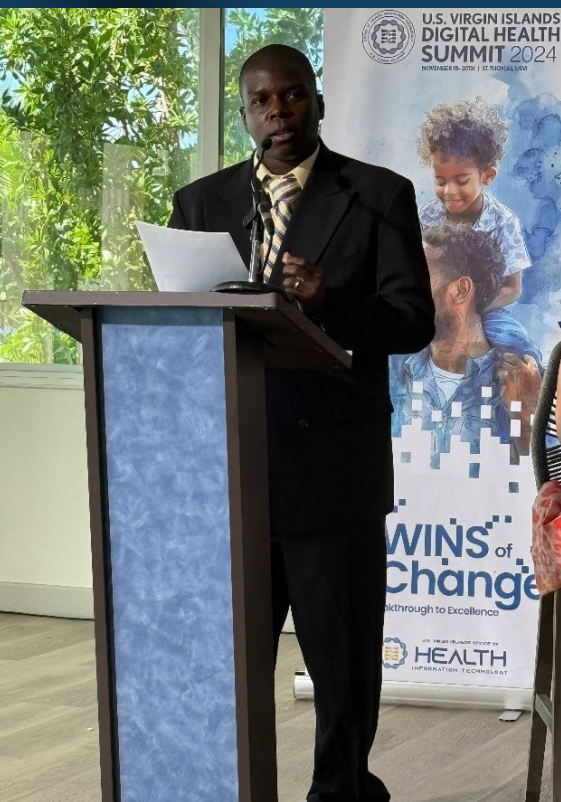
VIDOH also monitors other communicable diseases that can affect the USVI community including illnesses such as norovirus and hand, foot, and mouth disease.



Territorial Epidemiologist, Dr. Esther Ellis (right) presenting Ms. Jade Bernadel (left) with a Certificate of Appreciation for her service to the Epidemiology Division during her Fellowship on St. Thomas, USVI, September 2024.



Ms. Annellie Gumbs performing checks for mosquito larvae among discarded tires during dengue outbreak response activities on St. Thomas, USVI, November 2024.



Mr. Cosme Harrison presents at the USVI Digital Health Summit 2024 on St. Thomas, USVI, November 2024.



Mr. Cosme Harrison (left), Assistant Commissioner, Dr. Nicole Syms (right), and Deputy Territorial Epidemiologist, Dr. Lisa Ekpo (back) celebrate at Employee of the Year Award Ceremony, St. Thomas, USVI, May 2024.

U.S. Virgin Islands Department of Health

2024 Employee of the Year

Cosme Harrison, MPH, CPH Epidemiologist

Mr. Cosme Harrison is a dedicated public health professional with eight years of experience at the Virgin Islands Department of Health, Epidemiology Division. He has also served his country for over 20 years as a member of the Virgin Islands Army National Guard.

Mr. Harrison stands as a staunch advocate for improving public health at all levels in the Virgin Islands. He has served the Virgin Islands community during times of major public health crises such as the 2017 Hurricanes Irma and Maria and the COVID-19 Pandemic. Of all his public health experiences, supporting the 2021 Pediatric Specialty Clinic remains the highlight of his career.

Mr. Harrison encourages public health professionals to seek engaging learning opportunities and actively supports the Certified in Public Health (CPH) certification. This certification demonstrates a commitment to lifelong learning and staying informed of current public health trends and issues. Mr. Harrison has held this certification since 2021.

Additionally, Mr. Harrison is a strong proponent of work-life balance and enhancing individual wellbeing through physical activity and movement. He is a champion of physical activity advocacy and encourages VIDO staff to incorporate physical activity in their daily lives as a founding member of the Physical Activity Employee Resource Group. This group strives to reduce the impact of modern life on our health.

He is a husband and a father and enjoys spending time with his wonderful family.

2024 Epidemiology Division

Scientific Publications, Presentations, and Accolades

1. Labgold K, Cranford HM, Ekpo LL, Mac VV, Roth J, Stout M, et al. Population-based denominators matter: Bias in U.S. Virgin Islands COVID-19 vaccination coverage under changing population counts. *Annals of Epidemiology*. 2024;95:1–5.
2. Labgold K, Orr J, Fredricks L, Delgado, David, Roth Jr, Joseph, Ellis EM. Small Area Estimation of Subdistrict Diabetes Prevalence in the US Virgin Islands, 2021–2022. *Prev Chronic Dis*. 2024;21(240205).
3. Wondemenah S, Labgold, Katie, Penney J. Data Equity = Health Equity. TED-style Talk presented at: *Epidemic Intelligence Service (EIS) Conference*; 2024 April; Atlanta, GA, USA. Available from: <https://www.youtube.com/watch?v=ogVo6sQFdVU>
4. Labgold K, Orr J, Fredricks L, Delgado, David, Roth J, Ellis EM. Small Area Estimation of Subdistrict Diabetes Prevalence in the U.S. Virgin Islands, 2021–2022. Oral Presentation presented at: *Epidemic Intelligence Service (EIS) Conference*; 2024 Apr; Atlanta, GA, USA.
5. Bernadel J, Mac VV, LaPlace-Ekpo L, Harrison C, Simmers J, Ellis B, et al. Establishing Surveillance for Pediatric Lead in Blood in the U.S. Virgin Islands. Oral Presentation presented at: *Council of State and Territorial Epidemiologists Annual Conference 2024*; 2024 Jun; Pittsburgh, PA.
6. Cranford H, Orr J, Ekpo LL, Fredricks L, Ellis EM. Diabetes in the U.S. Virgin Islands – 20 years later. Poster presented at: *Council of State and Territorial Epidemiologists Annual Conference 2024*; 2024 Jun; Pittsburgh, PA.
7. Labgold K, Orr J, Roth Jr, Joseph, Ellis EM. Small Area Estimation of Subdistrict Diabetes Prevalence—U.S. Virgin Islands, 2021–2022. Oral Presentation presented at: *Council of State and Territorial Epidemiologists Annual Conference 2024*; 2024 Jun; Pittsburgh, PA.
8. Cranford HM, Mac V, Prosper A, Lawrence M, Ellis BR, Ellis EM. Targeted surveillance modernization methods for projected USVI dengue outbreak. *American Society of Tropical Medicine and Hygiene 2024 Annual Meeting*; 2024 Nov 13; New Orleans, LA.
9. Mekin Smith L, Ellis EM. Characterizing Infectious Meningitis and Encephalitis Cases in Emergency Department and Hospitalized Patients—U.S. Virgin Islands, January 1, 2016–December 31, 2023. *American Society of Tropical Medicine and Hygiene 2024 Annual Meeting*; 2024 Nov 13; New Orleans, LA.

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