

## Infectious Disease Surveillance Resource for Local Health Departments

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### What is the purpose of disease surveillance?

Disease surveillance is conducted to describe the burden and epidemiology of reportable infectious diseases to monitor the trend of disease and to detect new causes of disease and outbreaks for the purpose of preventing and controlling disease occurrence.

### What is the purpose of a case investigation?

Patients suspected with a reportable condition are thoroughly investigated to:

- Make sure that the individual meets the criteria to be counted as a case (case ascertainment).
- Collect information to understand the factors that contributed or caused the person to become ill.
- Implement appropriate prevention and control measures to prevent worsening or spread of disease. Prevention refers to keeping disease from occurring. Prevention activities may include immunization, education, assurance of clean water and proper food preparation techniques or infection control. Control refers to stopping the spread of disease after a case has been identified. Control may include outbreak investigation to identify and remove a source of infection, immunization or administration of medication, education, isolation of an infectious person or animal, etc. A disease investigation can also determine the effectiveness of prevention and control measures so improvements can be made.
- Determine disease severity and outcome. Information such as complications, hospitalization, and death may be collected.

### How do you prioritize investigating cases?

The urgency of investigating a patient depends on the seriousness of the disease and the timeframe within which control measures must be implemented. The [WV Reportable Disease Rule 64 CSR-7](#) and the [colored chart for Health Care Providers](#) specifies the timeframe of notification—use these as a guide to determine the urgency of investigation. A [colored chart for Laboratories](#) provides information on the specimens that need to be collected, tested, and reported. For more information about investigating specific reportable conditions, see the respective disease protocols at the West Virginia Office of Epidemiology and Prevention Services [A-Z list](#).

### How do I manage a disease report?

A laboratory, medical provider, or another health department notifies you of a case-patient through electronic methods, paper report, or phone call. What do you do next?

1. Determine if the condition needs to be reported. Use the [WV Reportable Disease Rule 64 CSR-7](#), the [colored chart for Health Care Providers](#), or the [colored chart for Laboratories](#) to identify reportable conditions and determine urgency of investigation and reporting.
2. For diseases that are reportable IMMEDIATELY and WITHIN 24 HOURS, the Division of Infectious Disease Epidemiology (DIDE) requests a courtesy telephone notification to the Epi on-call in addition to reporting the case to the West Virginia Electronic Disease Surveillance System (WVEDSS).

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3. Determine the county and state of residence of the case. If the county of residence is not indicated on the report, contact any of the following entities and request the information:
  - Test submitter – if this is a hospital or health care facility, possible sources of information are the medical records section, laboratory, or infection control staff. The local health department (LHD) should have established a good rapport with the health care facility to facilitate information exchange.
  - The doctor who ordered the test – contact the healthcare provider office.
  - The laboratory that performed the test.
4. Jurisdiction.
  - If the case resides in your jurisdiction, proceed with the investigation.
  - If the case does NOT reside in your jurisdiction, but is a West Virginia resident, notify the receiving LHD and forward the information. You may also contact DIDE for assistance.
  - If the case is NOT a West Virginia resident, forward the information to the appropriate out-of-state health department or contact DIDE for assistance.
5. Open the [West Virginia Electronic Disease Surveillance System](#) (WVEDSS) and perform a search to determine if the case has already been entered into the system. A search is necessary to avoid duplication of information. If the case is in the system, update the information as necessary. If the case has not been entered in the system, “open an investigation” and enter all the information you have available.
6. Each reportable disease has a surveillance and investigation protocol developed to help with the case investigation, management, and response. Review the protocol for a comprehensive understanding of the disease. Disease-specific case report forms at [WV Reportable Disease Manual](#) will help you determine the information you need to collect.

The following is a list of information required for investigation, case ascertainment, and reporting. For additional required disease-specific information, please refer to the disease protocol and report forms.

1. Demographic Information
  - Name
  - Age
  - Gender
  - Race
  - Ethnicity
  - Complete address
2. Clinical Information - information related to the disease
  - Onset date of illness – based on disease signs and symptoms
  - Diagnosis date
  - Date the illness ended and duration of illness

- Signs and symptoms
  - Type/s of infection
  - Underlying cause - if known
3. Laboratory Information
- Specimen collection date
  - Source of specimen – blood, CSF, stool, sputum, etc.
    - Considered previously sterile sites: blood, CSF, pleural fluid, pericardial fluid, peritoneal fluid, bone and joint fluid, internal body sites not accessible to environment (e.g., GI tract)
  - Type of test
    - Culture – bacterial (send isolate to OLS), viral, etc.
    - PCR
    - Antibiotic susceptibility test
    - Serology – IgM, IgG, antibody, and antigen testing
    - Serogroup/serotype
  - Result of Test – positive, negative, indeterminate, etc.
4. Other information
- Complete vaccination history – utilize WVSIS to obtain vaccine records
  - Postexposure prophylaxis - if indicated
  - Contact tracing – to identify more cases
  - Activity/travel history
  - Part of an outbreak – for cases that are epidemiologically-linked

**What do I need to know about completing a disease investigation in WVEDSS?**

Disease investigations and reports are to be completed by local health staff (including regional epidemiologists) within three weeks of receiving notification. If you are encountering difficulties in completing the investigation, please contact DIDE for assistance. Complete data is critical to surveillance as it helps with understanding disease occurrence and guides prevention and control strategies at the local and state level.

*No LHD Action Taken* is defined as no activity occurring at the local level for at least 30 days or otherwise specified (see respective disease protocol) since the date the investigation was started. State reviewer will make this notation.

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### How do I obtain patient information?

- A. Contact the patient (case) or guardian. The state has a written policy for managing “lost-to-follow-up” (LTF) cases. This policy is included in the disease protocol. The policy should be reviewed by the LHD staff investigating cases.

LTF is defined as a disease investigation outcome reported by a local health department staff in WVEDSS after:

- All avenues (e.g., phone call, text messaging, visit, mailed letter, email, etc.) of obtaining patient information, on at least three separate occasions (different days and times) have been exhausted, **AND**
  - Attempts to collect patient medical information from the health care provider on at least three separate occasions have been exhausted, **AND**
  - Attempts to contact patient or obtain information have been clearly documented in WVEDSS *General Comments* section, **AND**
  - Documentation has been completed within 30 days of the patient’s investigation start date.
- B. Are you sure you have the right contact information for the patient?
- Check the patient’s medical records to confirm you have the correct phone number and address.
  - If a patient is LTF, ask the provider or the hospital for the emergency contact information provided by the patient. If an emergency contact is listed, attempt to call that person.
  - As a last resort, send a letter to the patient’s address.
  - Contact DIDE if you need assistance.
  - If your county has a written LTF policy, please follow your organization's policy.
  - Again, remember to document all attempts to contact the patient, including the date and time of contact, type of contact (phone, voice mail, letter, home visit, etc.) and outcome. This allows DIDE to see all the work you have put into getting in contact with the patient.
- C. Trouble getting clinical information?
- Check medical records submitted through WVHIN or hospital electronic medical records, e.g., WVU hospital system.
  - Make yearly site visits to healthcare providers. Educate them about the reportable disease rule and provide reportable disease wall charts. This not only establishes a relationship but keeps them up to date on disease reporting in the State.
  - Establish a working relationship with the person at the hospital or provider’s office who is best able to provide you with clinical information. That person may be the infection control nurse, medical record staff, office manager, or healthcare provider.
  - Educate providers about Health Insurance Portability and Accountability Act (HIPAA) and how it pertains to reportable diseases. Give each provider a copy of the [BPH Commissioner Letter on HIPAA Privacy Rule](#).

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- Make multiple attempts to get in contact with providers at different times of the day.
- Share surveillance data and other relevant information with providers so they know how their data is used and they understand the importance.
- When you are conducting an investigation and getting ready to call a provider, be prepared. Review the information you have and enter it in WVEDSS or case report paper form. Be familiar with the case definition (found in the disease-specific surveillance protocol) and the WVEDSS form so you know what additional information to collect. Ensure control measures recommended for the disease are implemented at the appropriate time. This way, you will use your time and the provider's time wisely on the phone. You are less likely to get off the phone and realize you forgot an important detail.
- If a provider declines to give you the needed clinical information, ask your local health officer for assistance. DIDE (304) 558-5358, ext. 2) can also help if you need support.
- Obtaining information from schools: Occasionally the school will decline sharing student information due to the *Federal Education Rights and Privacy Act* (FERPA). Inform the school that the WV Reportable Disease Rule (64CSR7, Section 14.3.b) explicitly states that investigation of an infectious disease or outbreak is classified as a "Health and Safety Emergency" under FERPA and allows the release of personally identifiable information (PII) to public health authorities.

### What is a disease-specific surveillance protocol?

Each reportable disease has a surveillance protocol to guide disease investigation, management, and disease control. Information in the protocol includes:

#### I. ABOUT THE DISEASE

- A. Clinical Presentation
- B. Etiologic Agent
- C. Reservoir
- D. Incubation Period
- E. Mode of Transmission
- F. Period of Communicability

#### II. DISEASE CONTROL AND PREVENTION

- A. Disease Control Objectives
- B. Disease Prevention Objectives
- C. Disease Prevention and Control Intervention
- D. Treatment

#### III. DISEASE INVESTIGATION

- A. Criteria for Case Ascertainment
- B. Case Definition and Case Classification
- C. Reporting Timeframe to Public Health

- D. Outbreak Recognition
  - E. Healthcare Provider Responsibilities
  - F. Laboratory Responsibilities
  - G. Local Health Responsibilities
  - H. State Health Responsibilities
  - I. Occupational Health
- IV. DISEASE SURVEILLANCE
- A. Public Health Significance
  - B. Disease Surveillance Objectives
  - C. Surveillance Indicators
- V. REFERENCES

**What are surveillance indicators?**

Surveillance indicators are measures that assess the quality of surveillance data, *i.e.*, completeness of information (*e.g.*, proportion of cases with complete demographic information) and timeliness of reporting (*e.g.*, proportion of cases reported in a timely manner). Quality data is critical in understanding disease epidemiology and response. Each disease has prescribed surveillance indicators found in the disease protocol. Results of the evaluation are used to improve surveillance practices.

**How long should the LHD keep the paper medical records?**

LHDs should follow their LHD or local government records retention and destruction policy while maintaining patient confidentiality. Information submitted in WVEDSS will be kept indefinitely.

**What do I do if there is a breach of confidentiality?**

Immediately notify your local health department authorities and the state health department about the breach. You will also need to notify the patient about the breach. Implement corrective measures immediately.

# Infectious Disease Surveillance Resource for Local Health Departments

**What other resources are available?**

Questions related to	Contact	Phone #
<b>Infectious diseases &amp; outbreaks</b> <ul style="list-style-type: none"> <li>Surveillance</li> <li>Investigation</li> <li>Reporting</li> <li>Response</li> </ul>	DIDE Epi on-call	800-413-1271 or 304-558-5358 ext. 2  <a href="#">WV OEPS Website</a>
<b>WVEDSS technical issues:</b> <ul style="list-style-type: none"> <li>System error</li> <li>Login problems</li> <li>User account information</li> </ul>	WVEDSS Help Desk	877-408-8930
<b>Laboratory testing</b> <ul style="list-style-type: none"> <li>Request for test kits</li> <li>Specimen requirements and preparation</li> <li>Shipping and handling</li> </ul>	Office of Laboratory Services (OLS)	304-558-3530
<b>Environmental Health</b> <ul style="list-style-type: none"> <li>Food complaints</li> <li>Sewer issues</li> <li>Bed bugs</li> <li>Chemical exposure</li> </ul>	Office of Environmental Health Services (OEHS)	304-558-2981
<b>White Powder</b>	Center for Threat Preparedness (CTP)	304-558-6900