What is Case Surveillance?

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Case surveillance is foundational to public health practice. It helps us to understand diseases and their spread and determine appropriate actions to control outbreaks. Case surveillance occurs each time public health agencies at the local, state, or national levels collect information about a **case** or person diagnosed with a disease or condition that poses a serious health threat to Americans. These diseases and conditions include

- infectious diseases, such as coronavirus disease 2019 (COVID-19);
- foodborne outbreaks, such as *E.coli*; and
- noninfectious conditions, such as lead poisoning.

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Case surveillance starts at local, state, and territorial public health departments. Local laws and regulations specify which diseases and conditions must be reported. The health departments work with healthcare providers, laboratories, hospitals, and other partners to get the information needed to monitor, control, and prevent these **reportable** diseases and conditions in their communities.

Health departments also notify CDC about certain conditions so we can track them for the whole country. CDC monitors about 120 of these **notifiable** diseases and conditions at the national level. This important step helps protect the health of individual communities and the nation. Following standard case definitions, case surveillance captures information that public health officials can use to understand where diseases are occurring, how they can be prevented, and which groups are most heavily impacted. This information includes:

- who is affected—the demographic, clinical, and epidemiologic characteristics;
- where they are affected—the geographic distribution of disease; and
- how they are affected—the course of clinical illness and care received.

Reportable or Notifiable: What's the Difference?

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Reportable Diseases and Conditions	Notifiable Diseases and Conditions
• Each state or territory sets local laws and rules for which diseases and conditions must be reported.	• The Council of State and Territorial Epidemiologists and CDC identify the list of notifiable diseases and conditions.

Reportable or Notifiable: What's the Difference?

Reportable Diseases and Conditions	Notifiable Diseases and Conditions
• Healthcare professionals, laboratories, hospitals, and other providers must tell public health departments when a person is diagnosed.	• States voluntarily inform CDC when a person meets certain criteria to become a case.*
• Public health departments collect information about the person and how they became ill.	• Case records do not contain personally identifiable information.
• This information is used to locate the source of an outbreak and prevent spread.	• CDC uses data to monitor, measure, and alert individual communities or the nation to outbreaks and other public health threats.
• The list of diseases and conditions can change every year.	• The list of about 120 diseases and conditions is updated every year.

About the National Notifiable Diseases Surveillance System

CDC conducts case surveillance through the National Notifiable Diseases Surveillance System (NNDSS). In the case surveillance process, about 3,000 health departments gather and use data on disease cases to protect their local communities. Through NNDSS, CDC receives and uses these data to keep people healthy and defend America from health threats.

CDC programs responsible for national surveillance, prevention, and control of infectious and noninfectious conditions are found in the following centers:

- Center for Global Health (CGH);
- National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP);
- National Center for Emerging and Zoonotic Infectious Diseases (NCEZID);
- National Center for Environmental Health (NCEH);
- National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP);
- National Center for Immunization and Respiratory Diseases (NCIRD); and
- National Institute for Occupational Safety and Health (NIOSH).

These programs collaborate with the Council of State and Territorial Epidemiologists to determine which conditions reported to local, state, and territorial public health departments are nationally notifiable. The Council of State and Territorial Epidemiologists brings together disease and surveillance experts at CDC and in the health departments to determine what types of data should be included in national notifications.

NNDSS receives, processes, and provides data on national notifiable diseases to programs across CDC. The programs use these data to do the following:

- recognize disease outbreaks;
- track the spread of disease at the state, regional, and national levels;

- identify geographic areas of concern and inform state decision makers;
- help state and local public health departments better control disease by identifying groups most at risk; and
- evaluate and fund disease control activities.

By the Numbers

- About **120 diseases** are under surveillance through NNDSS, including infectious diseases, bioterrorism agents, sexually transmitted diseases, and noninfectious conditions.
- Nearly **2.7 million disease cases** are reported through NNDSS each year.
- About **3,000 public health departments** send disease data to **60 state, territorial, and other public health departments**, who then send the data to CDC.
- **100% of the American population** is protected through NNDSS.

NNDSS Modernization

As technology, data, and exchange standards evolve, CDC is strengthening and modernizing the infrastructure that supports NNDSS. As part of the Data Modernization Initiative, CDC is enhancing the ability of NNDSS to provide comprehensive, timely, and high-quality data for public health decision making. Through this multi-year initiative, CDC is making the NNDSS technological infrastructure more robust so that it is based on interoperable, standardized data and exchange mechanisms.

More About Case Surveillance and NNDSS

How We Conduct Case-Based Disease Surveillance

Learn about the process and data systems that NNDSS uses to collect national notifiable disease case data.

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[History and Modernization of Case Surveillance]

View major milestones in the advancement of notifiable disease case surveillance.

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* OMB No. 0920-0728 (Expiration Date: 07/31/2025) The public reporting burden of this collection of information is estimated to average 20 minutes per response for states, cities, and territories that automate case notification, 2 hours for states and cities that do not automate, and 20 minutes for territories and freely associated states that do not automate. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to all collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to – CDC/ATSDR Reports Clearance Officer; 1600 Clifton Road NE, MS D-74, Atlanta, Georgia 30329 ATTN: PRA (0920-0728).

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