



Maryland Department of Health – Division of Outbreak Investigation

Outbreak Reporting Guide for General Communicable Diseases

This document lists the Maryland Department of Health’s (MDH) outbreak definitions for general communicable diseases. Please refer to the [MDH Reporting Requirements](#) document and MDH’s [What to Report](#) webpage for more information about reportable conditions and reporting other types of outbreaks (e.g., tuberculosis, sexually transmitted infections, and multidrug-resistant organisms).

Several of the definitions in this document use the term “epidemiologically linked” or “epidemiologically related.” Epidemiologically linked cases are cases of a disease who had contact with one another or a common object (e.g., food product, water source) in such a way that transmission of the disease is plausible based on the usual mode(s) of transmission for that disease. Common examples of epidemiologic links include nursing home residents with influenza who live on the same unit; individuals with gastroenteritis who ate at the same restaurant or event; and coworkers with COVID-19 who work together or congregate in break rooms together. However, the link does not need to be this direct or extensive for cases to be considered related as long as the nature of the interaction could have reasonably resulted in the spread of the disease. It does not need to be definitively determined that transmission occurred between two cases or between a case and the environment for them to be considered epidemiologically linked.

Per the [Code of Maryland Regulations](#) (COMAR), outbreaks must be reported to the [local health department](#) (in the county where the facility is located) immediately. Consult the local health department if you’re unsure if a situation meets the outbreak definition.

Facilities are encouraged to adopt good cleaning and hygiene practices at all times and should consider implementing additional control measures once illnesses are identified, even if the situation does not yet meet the outbreak threshold. If you have questions about case management or outbreak prevention, please contact your local health department and refer to guidance available on the [MDH website](#).

Outbreaks defined by COMAR:

- **A foodborne disease outbreak**, defined as two or more epidemiologically related cases of illness following consumption of a common food item or items;
- **Three or more cases of a disease or illness that is not a foodborne outbreak** and that occurs in individuals who are not living in the same household, but who are epidemiologically linked;
- **An increase in the number of infections in a facility**, such as a hospital, long-term care facility, assisted living facility, school, or child care center, over the baseline rate usually found in that facility;
- **A situation designated by the Secretary as an outbreak (see table below);** or
- **One case of:** anthrax, botulism, cholera (imported or seafood-related), ciguatera poisoning, mushroom poisoning, paralytic shellfish poisoning and other neurotoxic shellfish poisoning, plague, rabies (human), smallpox, scombroid poisoning, or trichinosis.

For the purposes of the table below, “healthcare” and “community” settings are defined as follows:

- **Healthcare Settings include:** hospitals, nursing homes, assisted living facilities, adult medical daycares, and outpatient healthcare facilities
- **Community Settings include:** childcare programs, K-12 schools, camps and youth programs (e.g., sports), institutes of higher education, correctional facilities, shelters, drug treatment centers, group homes, and other non-healthcare facilities

Case Definitions for Select Conditions

- **COVID-19:** An individual with laboratory confirmation of SARS-CoV-2 by an approved laboratory test for acute infections (i.e., antigen or PCR), regardless of the presence of signs and symptoms.
- **Gastroenteritis:** An individual with vomiting and/or diarrhea, where:
 - Diarrhea is defined as 2 or more loose stools or an unexplained increase in the number of loose bowel movements within 24 hours.
 - Vomiting is defined as 1 or more episodes that cannot be attributed or explained by any other cause.
- **Influenza:** An individual with laboratory confirmation of influenza, and a clinically compatible illness.
- **Influenza-like Illness:** An individual with a temperature of 100°F (37.8°C) or greater orally **PLUS** cough or sore throat.
- **Pneumonia:** A clinically compatible illness, **PLUS** a new X-ray finding of pneumonia or a new infiltrate that is not thought to be aspiration pneumonia.
 - In settings where a chest X-ray can't be done, a clinical diagnosis of pneumonia may be acceptable

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Table 1. Outbreak Definitions by Disease/Condition and Setting

Disease/Condition and Setting	Outbreak Definition ^{1,2,3}	Outbreak Closes When ⁴
General Definition	3 or more cases of a disease or illness that is not a foodborne outbreak and that occurs in individuals who are not living in the same household, but who are epidemiologically linked OR An increase in the number of infections in a facility, such as a hospital, long-term care facility, assisted living facility, school, or childcare center, over the baseline rate usually found in that facility.	Consult the local health department (will vary by disease and specifics of investigation)
Chickenpox (Varicella)⁵	3 or more epidemiologically linked cases within a 28-day period	No new cases for 28 days
Ciguatera Fish Poisoning	1 or more clinically compatible cases in individuals who consumed tropical reef fish that eat other fish (e.g., barracuda, grouper, sea bass, red snapper) prior to onset	Consult the local health department
<i>Clostridioides difficile</i> (C. diff)	3 or more cases of facility-acquired <i>C. difficile</i> -associated diarrhea occurring in the same unit of the facility within a 7-day period	No new cases for 14 days
Conjunctivitis	3 or more cases in a classroom or identified group within a 7-day period	No new cases for 6 days
COVID-19^{6,7} Acute Care Facilities	3 or more cases among patients and/or staff members on the same unit with onsets within a 7-day period	No new cases for 7 days
COVID-19⁶ Adult Medical Daycares	2 or more cases in attendees and/or staff members on the same unit within a 7-day period	No new cases for 7 days
COVID-19⁶ Childcare and Pre-K Programs	<u>Family Child Care Homes:</u> 2 or more cases among providers, provider's household members, or attendees with onsets (or, if asymptomatic, collection dates) within a 7-day period, and who are epidemiologically linked but not household contacts. <u>Child Care Center:</u> 2 or more cases among staff or attendees with onsets (or, if asymptomatic, collection dates) within a 7-day period, and who are epidemiologically linked but not household contacts.	No new cases for 7 days

<p>COVID-19⁶ Colleges and Universities</p>	<p><u>Cohort (e.g., team, dorm):</u> 25% or more of a defined cohort or group develops symptoms in a 7-day period</p> <p><u>Campus-wide:</u> 5 or more cohort outbreaks within a 7-day period OR 10% or more of all COVID-19 tests administered on campus in a 7-day period (e.g., at the health center or during a mass testing event) are positive AND the positivity rate is higher than that of the surrounding community [minimum of 10 positive tests]</p>	<p><u>Cohort:</u> No new cases for 7 days</p> <p><u>Campus-wide (cohorts):</u> No active cohort outbreaks for 7 days</p> <p><u>Campus-wide (% positivity):</u> Positivity has remained below 10% for 7 consecutive days</p>
<p>COVID-19⁶ Congregate Living (e.g., correctional facilities, group homes, shelters, residential drug treatment center)</p>	<p>3 or more epidemiologically linked cases in residents or staff members within a 7-day period</p>	<p>No new cases for 7 days</p>
<p>COVID-19⁶ K-12 Schools, Youth Sports, and Youth Camps</p>	<p><u>Cohort:</u> 3 or more cases among students/teachers/staff in a specified group with onsets (or, if asymptomatic, collection dates) within a 7-day period, and who are epidemiologically linked in the school setting but not household contacts</p> <p><u>School-wide:</u> 5 or more cohorts with cases from separate households that meet the classroom/cohort outbreak definition that occurs within a 7-day period OR 5% or more of students/teachers/staff have confirmed COVID-19 within a 7-day period [minimum of 10 students/teachers/staff]</p>	<p><u>Cohort:</u> No new cases for 7 days</p> <p><u>School-wide (cohorts):</u> No active cohort outbreaks for 7 days</p> <p><u>School-wide (% ill):</u> Positivity has remained below 5% for 7 consecutive days</p>
<p>COVID-19^{6,8} Nursing Homes and Assisted Living Facilities</p>	<p>2 or more epidemiologically linked cases in residents or staff members within a 7-day period</p>	<p>No new cases for 7 days</p>
<p>COVID-19⁶ Outpatient Settings (e.g., clinics, dialysis centers)</p>	<p>3 or more cases among staff members within a 7-day period</p>	<p>No new cases for 7 days</p>
<p>Gastroenteritis (GE) /Foodborne⁵</p>	<p>2 or more epidemiologically linked cases of illness following consumption of a common food item (individuals must be from separate households and share few common meals)</p>	<p>Consult the local health department</p>

Gastroenteritis (GE)⁵ Childcare or Pre-K Programs	<u>Cohort:</u> 3 or more cases in a classroom or identified group within a 7-day period <u>Facility-wide:</u> When the proportion of GE visits to the health room is 10% or more of all visits within a 7-day period	<u>Cohort:</u> No new cases for 4 days <u>Facility-wide:</u> Proportion of GE visits to health room is less than 10% of all visits for 4 consecutive days
Gastroenteritis (GE)⁵ Colleges Universities	<u>Cohort:</u> 25% or more of a defined cohort or group develops symptoms in a 7-day period <u>Campus-wide:</u> When the proportion of GE visits to the student health center is 10% or more of all visits within a 7-day period	<u>Cohort:</u> No new cases for 4 days <u>Campus-side:</u> Proportion of GE visits to health room is less than 10% of all visits for 4 consecutive days
Gastroenteritis (GE)⁵ Healthcare Settings	3 or more epidemiologically linked cases or 3% or more of the entire facility within a 7-day period	No new cases for 4 days
Gastroenteritis (GE)⁵ K-12 Schools	<u>Cohort:</u> 3 or more cases in a classroom or identified group in a 7-day period <u>School-wide:</u> A doubling of the baseline absenteeism rate on one day AND 5 or more cases of GE seen in the school health room on that same day	<u>Cohort:</u> No new cases for 4 days <u>School-wide:</u> Baseline absenteeism is less than doubled AND fewer than 5 cases of GE seen in school health room per day for 4 consecutive days
Group A <i>Streptococcus</i> Strep Throat	3 or more cases in a classroom or identified group within a 7-day period	No new cases for 10 days
Hand, Foot, and Mouth	3 or more cases in a classroom or identified group within a 7-day period	No new cases for 10 days
Hepatitis A⁵	2 or more cases that are epidemiologically linked within a 50-day period	No new cases for 56 days
Impetigo	3 or more cases in a classroom or identified group within a 7-day period	No new cases for 14 days

<p>Influenza or Influenza-like Illness (ILI)⁵ Childcare</p>	<p><u>Home Childcare or Childcare Center Cohort:</u> 3 or more cases in a classroom or identified group within a 7-day period</p> <p><u>Facility-wide (Childcare Center):</u> 10% or higher absentee rate AND ≥ 3 attendees sent home with ILI or influenza on that same day</p>	<p><u>Home Childcare or Cohort:</u> No new cases for 4 days</p> <p><u>Facility-wide:</u> Less than 10% absentee rate AND fewer than 3 attendees sent home with ILI per day for 4 consecutive days</p>
<p>Influenza or Influenza-like Illness (ILI)⁵ Colleges and Universities</p>	<p><u>Cohort:</u> 25% or more of a defined cohort or group develops symptoms within a 7-day period</p> <p><u>Campus-wide:</u> When the proportion of ILI visits to the student health center is 10% or more of all visits to the health center</p>	<p><u>Cohort:</u> No new cases for 4 days</p> <p><u>Campus-wide:</u> Proportion of ILI visits to student health center is less than 10% for 4 consecutive days</p>
<p>Influenza or Influenza-like Illness (ILI)⁵ Healthcare Settings</p>	<p><u>Influenza*:</u> 2 or more cases of ILI or pneumonia within a 3-day period and at least 1 individual has laboratory confirmation of influenza</p> <p><u>Influenza-like illness (ILI)*:</u> 3 or more cases in patients/residents/staff in a facility within a 7-day period</p> <p>*Individuals with laboratory confirmation of influenza or other respiratory pathogen not otherwise defined in this document (e.g., RSV, parainfluenza) will count towards the outbreak threshold even if they do not have fever (and therefore do not meet ILI case definition)⁹</p>	<p>No new cases for 4 days</p>
<p>Influenza or Influenza-like Illness (ILI)⁵ K-12 Schools, Youth Sports, and Youth Camps</p>	<p><u>Cohort:</u> 3 or more cases in a classroom or identified group within a 7-day period</p> <p><u>School-wide:</u> A doubling of the baseline absenteeism rate on one day AND 5 cases of ILI or influenza seen in the school health room on that same day</p>	<p><u>Cohort:</u> No new cases for 4 days</p> <p><u>School-wide:</u> Baseline absenteeism less than doubled AND fewer than 5 cases of ILI seen in school health room per day for 4 consecutive days</p>
<p>Influenza or Influenza-like Illness (ILI)⁵ Other Community Settings</p>	<p>3 or more cases of ILI or influenza (or other laboratory-confirmed respiratory pathogen) in a unit or section of a facility within a 7-day period or a marked increase in cases over the usual number</p>	<p>No new cases for 4 days</p>

Legionellosis⁵ Healthcare Settings and Correctional Facilities	1 or more cases that are likely facility-acquired OR 2 or more cases that are possibly facility-acquired occurring within a 12-month period	Consult the local health department
Legionellosis⁵ Hotels, Resorts, and Multi-unit Residential Settings	2 or more cases that are possibly facility-acquired occurring within a 12-month period	Consult the local health department
Measles⁵	2 or more epidemiologically linked cases occurring within a 42-day period, AND at least 1 case is laboratory-confirmed	No new cases for 42 days
Meningococcal Disease	2 or more epidemiologically linked cases within a 3-month period	Consult the local health department
Mpox	2 or more epidemiologically linked cases associated with a facility (e.g., healthcare facility, school) occurring within a 21-days period	No new cases for 42 days
MRSA	3 or more epidemiologically linked cases of laboratory-confirmed infections within a 3-week period	No new cases for 42 days
Mumps⁵	2 or more epidemiologically linked cases occurring within a 25-day period, AND at least 1 case is laboratory-confirmed	No new cases for 50 days
Pertussis⁵	2 or more epidemiologically linked cases occurring within a 42-day period, AND at least 1 case is laboratory-confirmed	No new cases for 40 days
Pneumonia⁵	2 or more cases of pneumonia (confirmed by chest X-ray) in a unit or section of a facility within a 7-day period	No new cases for 4 days
Rash (unknown etiology)	3 or more cases of rash with a suspected infectious etiology in a classroom or identified group within a 7-day period	Consult the local health department
Scabies⁵	2 or more cases of scabies occurring in a facility within a 6-week period	No new cases for 12 weeks
Scombroid Fish Poisoning	1 or more clinically compatible cases in individuals who consumed fish associated with scombroid poisoning prior to onset	Consult the local health department
Waterborne Disease Community-based	2 or more cases epidemiologically linked cases associated with: <ul style="list-style-type: none"> ● Drinking water ● Water not intended for drinking/water of unknown intent ● Recreational water (treated and untreated water venues) 	Consult the local health department

1. This table provides the typical threshold for when an outbreak investigation is opened, however, judgment must be used in settings with many individuals at increased risk for complications (e.g., special needs classrooms, camps for children under 5 years old, or high-acuity healthcare settings).

2. In general, outbreak investigations will not be initiated when transmission was suspected to have occurred in a private residential setting. Exceptions include outbreaks occurring in home daycares and foodborne outbreaks where a product from a grocery store or restaurant is implicated in transmission.
3. For most outbreak definitions, cases should come from two or more different households. Exceptions include settings where cases occur among permanent residents, like inpatient healthcare settings, correctional facilities, and schools or colleges where transmission is suspected in campus housing.
4. This is the typical time frame for outbreak closures. All facilities should consult their local health department to confirm that the investigation has concluded. Local health department investigators should consult with MDH investigators to verify that the outbreak has met the closure criteria. Complex investigations or investigations where a pathogen with a long incubation or infectious period has been confirmed will likely remain open for a longer period of time.
5. Refer to the [MDH guidelines page](#) for more information on this condition.
6. For COVID-19 outbreaks, cases will typically count towards the outbreak if they were in the setting between the 7 days prior to onset date (or collection date) and the end of the recommended isolation period (i.e., while they're considered infectious). For residential and healthcare settings, residents/patients who have been admitted for <3 days prior to onset/collection date will not count towards the outbreak definition unless otherwise determined by the local or state health department.
7. Surge reporting (acute care only): Suspend reporting of staff-only clusters when the Maryland state respiratory virus-associated hospitalization rate is ≥ 10 per 100,000; resume reporting all clusters (including staff-only) when the hospitalization rate drops below 10 per 100,000 for two consecutive weeks (this hospitalization rate can be found here: <https://health.maryland.gov/phpa/Pages/resp-virus-metric.aspx>)
8. Nursing homes subject to CMS regulations must remain in compliance with CMS requirements to respond to single cases of COVID-19 associated with the facility.
9. For example, if 3 nursing home residents who are epidemiologically linked have an afebrile respiratory illness within a 7-day period, and all 3 test positive for RSV, it is considered an outbreak. Or if 2 of those residents have ILI and a third epi-linked resident doesn't have fever but tests positive for parainfluenza virus 3, it is considered an outbreak.