

MI Communicable Disease Outbreak Definitions and Reporting

General Outbreak Reporting

Definition

- Generally, an outbreak is a higher incidence of disease than expected for a given place and time.
- The definition, two or more cases of similar illness (usually in different households) associated with a common exposure, may be used.
- In some instances, individually reported cases should be investigated as outbreaks (e.g., a case of botulism, a case of hepatitis A in a food handler).

Reporting

- Per Cycle 8 LHD CD Accreditation: The LHD notifies MDHHS within 24 hours of a suspected CD outbreak via phone, fax, or MDSS (must include an outbreak identifier).
 - Special recognition is given to LHDs that report all outbreaks into MDSS via the [aggregate form](#) (notify your Regional Epidemiologist or other MDHHS point of contact) and manage large outbreaks via the Outbreak Management System ([OMS](#)).
- Update the MDSS aggregate form at least weekly throughout the duration of the outbreak and enter final information at the conclusion of the outbreak.
- The conditions currently available within the MDSS aggregate form include:
 - Flu Like Disease – for flu-positive outbreaks or respiratory outbreaks when the pathogen is unknown
 - Gastrointestinal Illness – for GI illness outbreaks when the pathogen is unknown or negative for norovirus
 - Head Lice
 - Norovirus – for outbreaks where there is at least one norovirus-positive sample
 - Novel Coronavirus COVID-19
 - Strep Throat
 - Unusual Outbreak or Occurrence – for any outbreaks not defined above
- The [Cluster and Facility Outbreak Notification Report Form](#) can be useful when gathering initial information.
- For prioritization of reporting, see the [Notification Requirements for Communicable Disease Reporting Pyramid](#).
- MDHHS and/or MDARD have certain requirements for final reports as outlined below. Consider sharing after action or final reports with partners so that others can share in lessons learned.

Resources

- [MDHHS Specimen Collection Supply Tip Sheet](#)
 - *It is important to periodically verify that the LHD has specimen collection kits and that they have not expired.*
- [Tips for Reporting Clusters or Outbreaks Using the MDSS Aggregate Case Report Form](#)
- [Outbreak Management System \(OMS\) User Guide](#)
- [Instructions for Monitoring Contacts in OMS](#)
- [MDHHS COVID-19 Cluster/Outbreak Reporting into MDSS Aggregate](#)

National Outbreak Reporting System (NORS)

Definition

- The CDC uses the [National Outbreak Reporting System \(NORS\)](#) to collect enteric, waterborne, and environmental contamination outbreak information from states.
- For NORS reporting, an outbreak is defined as two or more cases of similar illness associated with a common exposure. Unlike the Michigan Food Code definition of an outbreak, the NORS definition explicitly includes outbreaks with patients in the same household.
- Reportable outbreaks to NORS include:
 - **Waterborne disease outbreaks** – all outbreaks of respiratory, skin, enteric or other types of illness spread through water, including water that people drink, swim in, or use for other purposes.
 - **Foodborne disease outbreaks** – all outbreaks spread through food and food handling.
 - **Person-to-person transmitted disease outbreaks** – all outbreaks of enteric illness spread directly from one person to another through direct contact, such as by handshake.
 - **Animal contact disease outbreaks** – all outbreaks of enteric illness spread to humans from contact with animals, such as a chickens, pet turtles, or their environments.
 - **Environmental contamination outbreaks, including certain fungal disease outbreaks** – all outbreaks of enteric illness spread through contact with other environmental sources, such as dirty linens or surfaces that people touch in bathrooms, as well as outbreaks of blastomycosis, coccidioidomycosis, histoplasmosis, or sporotrichosis.
 - **All enteric illness outbreaks** – all outbreaks of enteric illness spread through other, unknown, or indeterminate means. Enteric illnesses are characterized by symptoms such as diarrhea, nausea, or vomiting and can be caused by bacterial, viral, parasitic, chemical, toxin, or unknown agents.

Reporting

- Per Cycle 8 LHD [CD Accreditation](#):
 - The LHD notifies MDHHS within 24 hours of a suspected CD outbreak via phone, fax, or MDSS (must include an outbreak identifier).
 - Special recognition is given to LHDs that report all outbreaks into MDSS via the aggregate form (notify your Regional Epidemiologist or other MDHHS point of contact) and manage large outbreaks via the Outbreak Management System (OMS).OMS).
 - The LHD submits the completed CDC 52.14 NORS form to their Regional Epidemiologist and the MDHHS ERIE Section (Katie Arends: ArendsK@michigan.gov) and, if applicable, the MI Department of Agriculture and Rural Development (MDARD), within 60 days of the date the first case became ill.
 - If the investigation is ongoing, a preliminary report can be submitted within 60 days of the date the first case became ill; the completed final report form must then be sent within 90 days.
- If the investigation team determines that an outbreak meets the NORS definition, the CDC 52.14 NORS form should be completed (see below). A report (6-point narrative) may also be required per MDARD (see below).
 - LHDs & MDHHS can discuss to see if a situation meets criteria to complete the CDC 52.14 NORS form.
 - Note: For norovirus outbreaks with person-to-person transmission, complete the MDSS aggregate form. MDHHS will submit information to CDC NORS with this information. A completed CDC 52.14 NORS form is required for norovirus outbreaks with foodborne transmission.
- MDHHS electronically submits data from the 52.14 NORS form to CDC.

Resources

- [MDHHS CD Resources and Forms](#)
- [CDC 52.14 Fillable NORS Form for Foodborne, Person-to-Person, Animal, and Waterborne Outbreaks](#)
- [CDC 52.14 NORS Appendix E](#)
- [CDC NORS Reporting Guidance](#)

- [CDC 52.13 NORS Reporting Tips \(MDHHS\) \(May 2017\)](#)

Foodborne Outbreaks and Michigan Food Law, effective October 1, 2012

Definition

- MI Food Law is an act to codify the licensure and regulation of certain persons engaged in processing, manufacturing, production, packing, preparing, repacking, canning, preserving, freezing, fabricating, storing, selling, serving, or offering for sale food or drink for human consumption.
- MI Food Law defines a foodborne illness outbreak as an incident where any of the following occur:
 - Two or more persons, not of the same household, have ingested a common food and have a similar disease or similar symptoms or excrete the same pathogens, and there is a time, place, or person association between these persons.
 - A single case of suspected botulism, mushroom poisoning, paralytic shellfish poisoning, or other rare disease.
 - A case of a disease or poisoning that can be definitely related to ingestion of a food.

Reporting

- Food employees are required to report to the food establishment's "person in charge" about their health and activities as they relate to diseases that are transmissible through food. The "person in charge" shall notify the regulatory authority (LHD or MDARD) when any food employee is jaundiced or diagnosed with certain, specified illnesses.
- Notification Requirements:
 - Per Cycle 8 LHD Food Program Accreditation: The LHD notifies MDARD of potential foodborne illness outbreaks by forwarding information required on the Food Related Alert/Complaint Record Form "A" or equivalent by emailing to MDARD-MI-FSPR@michigan.gov.
 - Per Cycle 8 LHD CD Accreditation: The LHD must notify MDHHS CD within 24 hours of a suspected outbreak via phone, fax, or MDSS (must include an outbreak identifier).
 - Special recognition is given to LHDs that report all outbreaks into MDSS via the aggregate form (notify your Regional Epidemiologist or other MDHHS point of contact) and manage large outbreaks via the Outbreak Management System (OMS).OMS).
- Final Report Requirements: Depends on the size of the outbreak and the state agency that is requesting them. The MDARD requirements are outlined in Cycle 8 LHD Food Program Accreditation document; however, that document does not include the MDHHS CD reporting requirements.
 - For small outbreaks (typically < 5 persons)
 - No or uncertain potential for foodborne transmission: submit a termination report to MDARD. A CDC 52.14 NORS form may also be required for MDHHS.
 - Likely/Definitely foodborne: submit the completed final CDC 52.14 NORS form to MDHHS & MDARD.
 - For larger outbreaks (5 or more ill)
 - No or uncertain potential for foodborne transmission: submit a termination report to MDARD. A CDC 52.14 NORS form may also be required for MDHHS.
 - Likely/Definitely foodborne: submit a completed final version of CDC 52.14 NORS form AND a written narrative containing the following sections to MDHHS and MDARD: Introduction, Epidemiology (Methods & Results), Laboratory (Methods & Results), Environmental (Methods & Results), Discussion/Conclusion, and Recommendations.
 - The LHD is to submit the final written reports to MDARD by emailing MDARD-MI-FSPR@michigan.gov within 90 days of completing the foodborne illness outbreak investigation.

- A CDC 52.14 NORS form must be submitted to MDHHS (and MDARD when applicable) within 60 days of **the date the first case became ill**. Note this is not from the completion of the outbreak investigation and it differs from the due dates for final written reports to MDARD. If an investigation is still ongoing, a preliminary CDC 52.14 NORS form must be submitted to MDHHS within 60 days of the first case become ill; the completed final outbreak report form must be submitted within 90 days.

Resources

- [MDARD - Foodborne Illness, Food Security & Recalls](#)
- [MDARD - Foodborne Illness Complaint Investigation Forms](#)
- [MDARD - Food and Dairy Laws \(michigan.gov\)](#)
- [MDHHS - Food Sample Collection Tips](#)
- [MDHHS - Foodborne Specimen Flowchart](#)
- [MDHHS – DCH 0583: Microbiology/Virology Test Requisition Form](#)
- [MDHHS - DCH 1052 Multiple Patient/Sample - Same Test - Requisition Form](#)

Outbreaks in Specific Settings

Schools

Definition

- An outbreak is defined as any increase of an illness. The LHD may need to assist the school in determining if an outbreak is occurring.
 - An influenza-like illness (ILI) outbreak: a building is experiencing ILI in the school community above a level that would be expected for that time of year.
 - A COVID-19 outbreak: a school building is experiencing higher levels of COVID-19 illnesses among the school community.
 - A gastrointestinal (GI) illness outbreak: a building is experiencing GI illness in the school community above a level that would be expected for that time of year. The sudden onset of vomiting and/or diarrhea in several individuals may suggest an outbreak is occurring.
 - There is no “one-size-fits-all” outbreak definition for schools, and it can be difficult to distinguish outbreaks due to transmission at school vs increases in the general community that are affecting the school population. Determining if an outbreak is occurring usually requires some level of investigation. LHDs may prioritize their investigations depending on many factors including the disease condition, severity, scope, season, population affected, school resources, etc.
- Things to consider when trying to determine if an outbreak is occurring AND how to respond:
 - Is there clustering of cases, for example, within a particular class, grade, or extracurricular club?
 - Is this illness activity also increasing in the community? Are other schools also reporting illness? Syndromic surveillance data may be helpful to assess trends in the community.
 - Are there unusual or severe clinical presentations and/or is illness occurring among a population at greater risk for severe outcomes? This may impact an LHD decision to investigate and recommend control measures sooner or differently than otherwise.
- Most outbreaks will not need school closure. However, there may be some instances where closure can be considered for disinfection or other mitigation actions. Consult with your LHD as needed for guidance and recommendations. Things to consider when discussing school closure may include the number of staff out with illness or whether a high proportion of students are at risk for severe outcomes.

Reporting

- All outbreaks of suspected or confirmed communicable diseases are immediately reportable from the school to the local health department. School closures due to illness should be reported at once to your LHD regardless of whether it is an outbreak of one disease, a closure due to a variety of illnesses, or a closure due to staff illnesses.
- The LHD notifies MDHHS within 24 hours of a suspected CD outbreak via phone, fax, or MDSS. It is recommended to report all outbreaks into MDSS via the aggregate form and email your Regional Epidemiologist or other MDHHS point of contact.
- For school ILI outbreaks to be included in the MI FluFocus, they must be reported in MDSS as aggregate ILI or unusual occurrence, with outbreak checked yes, and a note that there was at least 1 positive flu lab test.

Resources

- [Managing Communicable Diseases in Schools](#)
- [CSTE: COVID-19 K-12 School Surveillance Guidance for Identification and Classification of Outbreaks \(9/2022\)](#)
- MDHHS has template letters that could be updated and sent to parents/guardians for a variety of conditions including [influenza](#), [RSV](#), and [When to Keep a Child Home](#). Additional letters can be found at www.michigan.gov/cdinfo under “Communicable Diseases A-Z”

Long-Term Care Facilities

Definition

- Definition of a Respiratory Virus Outbreak in Long-Term Care (LTC) Settings
 - Two or more residents develop respiratory illness within 72 hours of each other **OR**
 - One laboratory-confirmed positive (excluding serology) case in a resident (e.g., influenza, respiratory syncytial virus, parainfluenza, human metapneumovirus, adenovirus) along with other cases of respiratory infection **OR**
 - A sudden increase over the normal background rate of acute respiratory illness (ARI) cases, with or without documented fever.
- COVID-19
 - Acute, inpatient: ≥ 2 cases of probable or confirmed COVID-19 among patients 4 or more days after admission for a non-COVID condition, with epi-linkage **OR** ≥ 2 cases of suspect, probable, or confirmed COVID-19 among HCP **AND** ≥ 1 case of probable or confirmed COVID-19 among patients 4 or more days after admission for a non-COVID condition, with epi-linkage.
 - LTCH or LTAC, inpatient: ≥ 2 cases of probable or confirmed COVID-19 in residents, with epi-linkage **OR** ≥ 2 suspect, probable, or confirmed cases in HCP **AND** ≥ 1 case of probable or confirmed COVID-19 among residents, with epi-linkage **AND** no other more likely exposure source for at least 1 of the cases.
- Norovirus/Norovirus-like illness (NLI)
 - More diarrhea or vomiting than would usually be seen at the facility/unit for that time of year.

Reporting

- The LTC facility should report every suspect or confirmed outbreak to the LHD. If a LHD receives a positive respiratory virus lab report for a known resident of a LTC facility, they should follow up with the facility to ensure no other respiratory illness is present. Any potential outbreak should trigger testing and prompt infection prevention and control measures, including active surveillance and reporting of new cases.
- The LHD must notify MDHHS of all outbreaks. It is recommended that the LHD enter outbreak information in the [MDSS aggregate form](#) and update case counts on a weekly basis for the duration of the outbreak. Individual cases may be entered into MDSS with an outbreak ID that matches the aggregate form's outbreak ID. Final counts should be updated in the aggregate form at the conclusion of the outbreak.

Resources

- [LTC Outbreak Guidelines 2022-2023 FINAL \(michigan.gov\)](#)
- [Outbreak Investigations in Healthcare Settings | HAI | CDC](#)
- <https://www.corha.org/resources/corha-principles-and-practices-for-outbreak-response/>
- <https://www.corha.org/resources-and-products/>
- [COVID-19-HC-Outbreak-Definition-Guidance January-2024.pdf \(corha.org\)](#)
- [Outbreak Response Tool SNF Settings 7 2023](#)
- [MDHHS: Respiratory Virus Outbreaks in Nursing Homes Flow Diagram](#)
- [MDHHS: Norovirus Investigations in Long Term Care Facilities](#)

Correctional Facilities

Definition

- Generally, an outbreak is a higher incidence of disease than expected for a given place and time.
- May also be defined as an incident in which two or more people have the same illness or disease, similar clinical symptoms, or the same pathogen and there is a time, place, or person association.

Reporting

- An unusual occurrence, outbreak, or epidemic of any disease or condition must be communicated immediately by phone to public health (state and local).
 - These would include a single case of some diseases that cause severe illness or death, such as botulism or meningococcal disease.

Resources

- While state correctional facilities generally conduct their own internal investigation of disease outbreaks, MDHHS and the LHD may also be available to assist with the outbreak investigation by providing assistance with the following:
 - developing hypotheses to explain the most likely type of illness and mode of transmission
 - conducting case-control studies and statistical analyses to determine the disease vehicle
 - advising on how to collect and submit specimens for laboratory testing
 - providing fact sheets and information on how to report the disease
 - recommending evidence-based prevention and control measures
- [2013 Guidance on Disease Reporting in State of Michigan Correctional Facilities 20130320](#)