This guidance outlines Michigan Department of Health and Human Services (MDHHS) recommendations on influenza surveillance, testing, and reporting for local health departments. Future updates may be issued if influenza virus severity or activity changes. Additional guidance for influenza testing, reporting, and investigation can be found at www.michigan.gov/cdinfo and www.michigan.gov/mdhhslab. Please call the MDHHS Division of Communicable Disease at (517) 335-8165 with any questions.

Updates on Surveillance Activities

- MDHHS coordinates four voluntary statewide programs for influenza surveillance: outpatient sentinel physicians network (ILINet), influenza sentinel hospitals network, and influenza sentinel laboratories network, and syndromic surveillance. These programs contribute essential data on influenza-like illness activity, influenza hospitalization trends, and virologic surveillance data throughout Michigan.

- MDHHS participation in the CDC Influenza Hospitalization Surveillance Network (FluSurv-NET) in conjunction with hospitals in Clinton, Eaton, Ingham, Genesee and Washtenaw Counties will continue for 2019-2020. This project provides population-based rates of hospitalization due to severe influenza illness through active surveillance and chart review of lab-confirmed cases from October 1 – April 30.

- MDHHS encourages surveillance and reporting of severe or unusual influenza cases (ICU admissions, severely ill pregnant or postpartum women, patients with atypical and/or severe presentations) into the Michigan Disease Surveillance System (MDSS) by local health departments and healthcare providers.

- Required reporting continues for pediatric influenza-associated deaths (<18 years).

- Surveillance activities are recommended year-round for rapid detection of drifted strains or potential novel or variant events.

- Michigan influenza activity is summarized in the MI FluFocus weekly report, where data from all of the above surveillance systems is included.

Influenza Testing

During the 2019-2020 influenza season, MDHHS Bureau of Laboratories (BOL) will use RT-PCR as the first-line testing method for Influenza A and B. Specimens negative for influenza by PCR will then undergo viral culture. Influenza A subtyping or influenza B lineage determination is performed on all influenza positive specimens. A subset of specimens receive genetic sequencing.

- Routine surveillance samples
  MDHHS requests clinical laboratories throughout Michigan to voluntarily submit influenza-positive specimens to the BOL from a representative sample of outpatients, hospitalizations, and adult deaths. Specimen submission (up to 8 per month) is encouraged throughout the flu season (beginning, middle, and end) as well as during the summer period.

- Pediatric Influenza-associated deaths (< 18 years)
  Specimen submission to BOL from all pediatric deaths with suspected or confirmed influenza should be promptly coordinated with MDHHS. Please see further guidance for investigating these cases: http://www.michigan.gov/documents/mdch/ME_pediatric_influenza_guidance_v2_214270_7.pdf.

- Atypical or severe cases and congregate setting outbreaks
  Specimen submission to BOL from influenza cases with severe or unusual presentations, and cases associated with congregate facility respiratory outbreaks, are important and should be facilitated by local health jurisdictions.
• **Novel or variant strain testing**
  ALL suspected novel or variant strain influenza cases (such as H3N2v) should be tested for influenza, with arrangements to include PCR testing at MDHHS.

• **Off-season (summertime) specimens**
  Rapid-test positive specimens (or negative specimens) from patients with a high clinical index of suspicion for influenza during the summer (off-season) months are encouraged to be submitted to MDHHS BOL. Healthcare providers and labs should consider the low positive predictive value of rapid influenza diagnostic tests (i.e., false positives) during times of low influenza prevalence in the community and confirmatory testing should be sought.

• **Cases with international travel**
  Specimens should be submitted to BOL from influenza cases with a history of international travel within two weeks of symptom onset.

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**Influenza Reporting Requirements and Recommendations**

Reporting of influenza is required either by weekly aggregate counts or by individual case reports as listed below. Congregate facility outbreaks and any unusual clusters are also required to be reported.

**Required Reporting**

- **Weekly counts of influenza cases**
  - At the end of each week, report influenza-positive† counts into the MDSS marking them as "Confirmed" under the aggregate “Flu-like Disease” category. Submit a report even if the count is ‘zero’. *See below for off-season reporting recommendations when influenza prevalence is low.

- **Facility outbreaks or clusters**
  - Contact your Regional Epidemiologist or MDHHS at (517) 335-8165 to report facility outbreaks or clusters of influenza-like illness. Enter the report into MDSS (preferred) or submit a completed "Cluster and Facility Outbreak Notification Report Form" and fax to MDHHS at (517) 335-8263.

- **Pediatric influenza-associated deaths (<18 years of age)**
  - Notify MDHHS immediately at (517) 335-8165 (or 517-335-9030 after hours).
  - Enter case into MDSS using the “Influenza” form and fill out the case details form.

- **Suspect cases of novel or variant influenza strains**
  - Notify MDHHS immediately for avian influenza cases or other novel/variant strains, at (517) 335-8165 (or 517)335-9030 after hours).
  - Enter case on the “Novel Influenza” form in MDSS and fill out the case details form.

**Recommended Reporting**

- **Severe, unusual presentations of influenza (encephalitis, pulmonary hemorrhage, pregnant or newly postpartum women with severe complications or ICU hospitalization, etc.)**
  - Report cases individually in MDSS on the "Influenza" form and fill out the case details form. Also contact MDHHS directly for assistance with follow-up coordination.

- **Off-season (summertime) cases**
  - Individually report and obtain additional epidemiologic information on all influenza cases identified during times of low influenza prevalence. LHDs should pursue confirmatory lab testing on specimens from such cases and facilitate specimen submission to MDHHS BOL.

- **Electronic laboratory reporting (ELR) of influenza-positive cases**
  - Facilities that report all of their influenza testing results via ELR meet the reporting requirements and do not have to submit an aggregate report to local public health. The guidance for following-up on individual cases of public health importance (outlined above) still applies to ELRs. MDHHS recommends working with facilities to develop a system for identifying cases that warrant follow-up.

†Excludes serologic testing