Maryland Weekly Influenza Surveillance Activity Report
A summary of influenza surveillance indicators reported to Maryland Department of Health (MDH) for the
week ending February 22, 2020

Prepared by the Division of Infectious Disease Surveillance
Prevention and Health Promotion Administration
Maryland Department of Health
The data presented in this document are provisional and subject to change as additional reports are received.
Percentages may not total 100 due to rounding.

SUMMARY
During the week ending February 22, 2020, influenza-like illness (ILI) activity in Maryland was
HIGH and there was WIDESPREAD geographic activity. The percentage of outpatient visits
for ILI reported by Sentinel Providers and by the Maryland Emergency Departments decreased.
The percentage of specimens testing positive from clinical laboratories decreased from 29.6% to
26.2%. MDH Laboratories Administration reported a decrease in percent positive specimens for
influenza. In recent weeks influenza A(H1N1) has been reported more frequently than influenza
B/Victoria. There were 212 influenza-associated hospitalizations. A total of forty deaths
associated with influenza have occurred this season among hospitalized adults.

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ILINet Sentinel Providers
Seventy providers reported a total of 50,736 visits this week. Of those 2,772 (5.5%) were visits for ILI. This is ABOVE the Maryland baseline of 1.9%.

ILI Visits To Sentinel Providers By Age Group
This Week  | Last Week  | Season
Age 0-4    | 648 (23%)  | 704 (22%)  | 11,681 (27%)
Age 5-24   | 941 (34%)  | 1,206 (38%)| 15,182 (35%)
Age 25-49  | 717 (26%)  | 773 (24%)  | 10,252 (24%)
Age 50-64  | 283 (10%)  | 298 (9%)   | 3,804 (9%)
Age ≥ 65   | 183 (7%)   | 196 (6%)   | 2,595 (6%)
Total      | 2,772 (100%)| 3,177 (100%)| 43,514 (100%)

ILI Visits To Emergency Departments for ILI
Emergency Departments in Maryland reported a total of 61,574 visits this week through the ESSENCE surveillance system. Of those, 5,075 (8.2%) were visits for ILI.

ILI Visits To Emergency Departments By Age Group
This Week  | Last Week  | Season
Age 0-4    | 748 (15%)  | 819 (14%)  | 13,565 (18%)
Age 5-24   | 1,560 (31%)| 1,948 (33%)| 24,471 (33%)
Age 25-49  | 1,843 (36%)| 2,108 (36%)| 23,674 (32%)
Age 50-64  | 638 (13%)  | 698 (12%)  | 7,988 (11%)
Age ≥ 65   | 286 (6%)   | 337 (6%)   | 3,967 (5%)
Total      | 5,075 (100%)| 5,910 (100%)| 73,665 (100%)

Neighboring states’ influenza information:
Delaware http://dhss.delaware.gov/dph/epi/influenzahome.html
District of Columbia http://doh.dc.gov/service/influenza
Pennsylvania https://www.health.pa.gov/topics/disease/Flu/Pages/Flu.aspx
West Virginia http://dhrwv.gov/epcs/disease/flu/Pages/fluSurveillance.aspx

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Community-based Influenza Surveillance (MRITS)

MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 592 residents responded to the MRITS survey this week. Of those, 10 (1.7%) reported having ILI and missing greater than 32 days of regular daily activities.

Clinical Laboratory Influenza Testing

There were 70 clinical laboratories reporting 10,434 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 2,736 (26.2%) were positive for influenza. Of those testing positive, 1,723 (63%) were influenza Type A and 1,013 (37%) were influenza Type B. The reliability of RIDTs depends largely on the conditions under which they are used. False-positive (and true-negative) results are more likely to occur when the disease prevalence in the community is low, which is generally at the beginning and end of the influenza season and during the summer.

State Laboratories Administration Influenza Testing

The MDH Laboratories Administration performed a total of 331 polymerase chain reaction (PCR) tests for influenza and 255 (77.0%) tested positive for influenza. PCR testing is more reliable than RIDT. The MDH testing identifies subtypes of influenza A and lineages of influenza B, information that is not available from the RIDT results. The table below summarizes results by type, subtype, and lineage.
Influenza-associated Hospitalizations
Two hundred and twelve influenza-associated hospitalization cases were reported this week. (A person with an overnight hospital stay along with a positive influenza test of any kind, e.g., RIDT or PCR, is considered an “influenza-associated hospitalization” for purposes of influenza surveillance.) This surveillance is conducted as a component of the Maryland Emerging Infections Program.

Influenza-associated Deaths
An influenza-associated death is one with a clinically compatible illness and a positive influenza test of any kind.

Pediatric Deaths: A total of five pediatric (< 18 years of age) deaths have been reported to MDH this season. The most recent death occurred in week 7 (week ending February 15, 2020) and was associated with influenza B virus, while another death occurred in week 4 and was associated with influenza A virus. As previously reported, one death occurred in week 3 and was associated with influenza B virus; one death occurred during week 2 and one death occurred during week 1, both of which were associated with influenza B/Victoria virus. Influenza-associated pediatric mortality is a reportable condition in Maryland. Pediatric deaths are tracked without regard to hospitalization.

Adult Deaths Among Hospitalized Patients: Forty deaths have been reported among adults admitted to Maryland hospitals this influenza season. Influenza-associated adult mortality is not a reportable condition in Maryland. However, surveillance for mortality in hospitalized adults is conducted as a component of the Maryland Emerging Infections Program.

Outbreaks of Respiratory Disease
There were twelve respiratory outbreaks reported to MDH this week. (Disease outbreaks of any kind are reportable in Maryland. Respiratory outbreaks may be reclassified once a causative agent is detected, e.g., from ILI to influenza.)
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National Influenza Surveillance (CDC)
Key indicators that track flu activity remain high but decreased for the second week in a row. Severity indicators (hospitalizations and deaths) remain moderate to low overall, but hospitalization rates differ by age group, with high rates among children and young adults.

- **Viral Surveillance:** Numbers of influenza B/Victoria and A(H1N1)pdm09 viruses are approximately equal for the season overall, with continued increases in influenza A(H1N1)pdm09 viruses in recent weeks.
- **Influenza-like Illness Surveillance:** Visits to health care providers for influenza-like illness (ILI) decreased from 6.1% last week to 5.5% this week. All regions remain above their baselines.
- **Geographic Spread of Influenza:** The number of jurisdictions reporting regional or widespread influenza activity decreased from 51 last week to 50 this week.
- **Pneumonia and Influenza Mortality:** The percentage of deaths attributed to pneumonia and influenza is 6.9%, below the epidemic threshold of 7.3%.
- **Influenza-associated Pediatric Deaths:** 20 influenza-associated pediatric deaths occurring during the 2019-2020 season were reported this week. The total for the season is 125.
- **Outpatient Illness Surveillance:** Nationwide during week 8, 5.5% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). This percentage is above the national baseline of 2.4%. (ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and cough and/or sore throat.)
- **On a regional level, the percentage of outpatient visits for ILI ranged from 3.6% to 8.8% during week 8. All regions reported a percentage of outpatient visits for ILI above their region-specific baselines.

Influenza Activity Levels: ILI Activity Levels and Influenza Geographic Activity Levels

**ILI Activity Levels**
One indicator we look at is the proportion of visits to sentinel providers for ILI. We compare these proportions to baseline numbers, and then categorize ILI activity levels as minimal, low, moderate, or high.

**Geographic Activity levels**
Influenza geographic activity levels are not a measure of severity of influenza in the region or state. These levels serve as a weekly estimate of where influenza could be circulating. Maryland estimates levels of geographic spread and reports them to the Centers for Disease Control and Prevention (CDC) using the following national definitions.

Note: Only laboratory confirmed influenza tests performed at the MDH Laboratories Administration are used in influenza geographic activity level calculations.

<table>
<thead>
<tr>
<th>Influenza Geographic Activity Levels</th>
<th>Definition</th>
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<tbody>
<tr>
<td>No Activity</td>
<td>No lab-confirmed cases</td>
</tr>
<tr>
<td>Sporadic</td>
<td>Small numbers of laboratory-confirmed influenza cases OR a single laboratory confirmed influenza outbreak has been reported, but there is no increase in cases of ILI</td>
</tr>
<tr>
<td>Local</td>
<td>Increased ILI in 1 region; ILI activity in other regions is not increased and recent (with the past 3 weeks) lab confirmed evidence of influenza in region with increase ILI OR 2 or more institutional outbreaks</td>
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<tr>
<td>Regional</td>
<td>Outbreaks of influenza OR increases in ILI and recent laboratory confirmed influenza in at least two but less than half the regions of the state with recent laboratory evidence of influenza in those regions</td>
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<tr>
<td>Widespread</td>
<td>Outbreaks of influenza OR increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state</td>
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Where to get an influenza vaccination
Interested in getting a flu vaccine for the 2019-20 influenza season? Go to [https://phpa.health.maryland.gov/influenza/Pages/getvaccinated.aspx](https://phpa.health.maryland.gov/influenza/Pages/getvaccinated.aspx) and click on your county/city of residence. You will be redirected to your local health department website for local information on where to get your flu vaccine.