

A summary of influenza surveillance indicators reported to MDH for the week ending March 2, 2019

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.

### **SUMMARY**

During the week ending March 2, 2019 influenza-like illness (ILI) intensity in Maryland was **MINIMAL** and there was **WIDESPREAD** geographic activity. The proportion of outpatient visits for ILI reported by Sentinel Providers and by Maryland Emergency Departments decreased. The proportion of MRITS respondents reporting ILI increased from last week. Clinical laboratories reported a decrease in the proportion of specimens testing positive for influenza. Five hundred and ten specimens tested positive for influenza at the MDH lab. There were 188 influenza-associated hospitalizations. There were fifteen respiratory outbreaks reported to MDH.

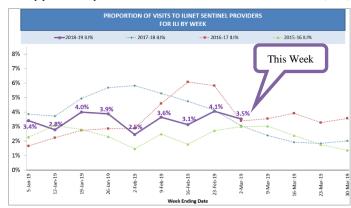
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ILI Intensity Levels			
<b>√</b> Minimal			
Low			
Moderate			
High			

Influenza Geographic Activity
No Activity
Sporadic
Local
Regional
<b>√</b> Widespread

#### **ILINet Sentinel Providers**

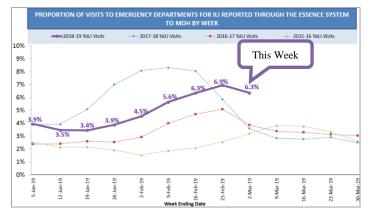
Twenty providers reported a total of 7,042 visits this week. Of those, 248 (3.5%) were visits for ILI. This is above the Maryland baseline of 2.0%.



ILI Visits To Sentinel Providers By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	107 (43%)	68 (30%)	1,064 (32%)
Age 5-24	94 (38%)	110 (48%)	1,311 (39%)
Age 25-49	24 (10%)	19 (8%)	517 (15%)
Age 50-64	12 (5%)	23 (10%)	278 (8%)
$Age \ge 65$	11 (4%)	9 (4%)	173 (5%)
Total	248 (100%)	229 (100%)	3,343 (100%)

### Visits to Emergency Departments for ILI

Emergency Departments in Maryland reported a total of 59,640 visits this week through the ESSENCE surveillance system. Of those, 3,785 (6.3%) were visits for ILI.



ILI Visits To Emergency Departments By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	582 (15%)	670 (16%)	8,708 (21%)
Age 5-24	1,127 (30%)	1,277 (30%)	12,547 (30%)
Age 25-49	1,292 (34%)	1,376 (33%)	12,997 (31%)
Age 50-64	517 (14%)	583 (14%)	5,314 (13%)
Age ≥ 65	267 (7%)	285 (7%)	2,768 (7%)
Total	3,785 (100%)	4,191 (100%)	42,334 (100%)

# Neighboring states' influenza information:

Delaware <a href="http://dhss.delaware.gov/dph/epi/influenzahome.html">http://dhss.delaware.gov/dph/epi/influenzahome.html</a>

District of Columbia <a href="http://doh.dc.gov/service/influenza">http://doh.dc.gov/service/influenza</a>

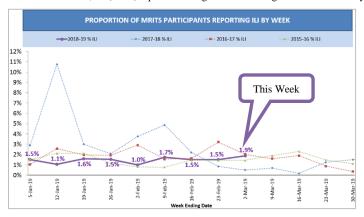
 $\underline{\text{http://www.health.pa.gov/My\%20Health/Diseases\%20and\%20Conditions/I-L/Pages/Influenza.aspx\#.V-LtaPkrJD8}$ 

Virginia http://www.vdh.virginia.gov/epidemiology/influenza-flu-in-virginia/influenza-surveillance/

West Virginia <a href="http://dhhr.wv.gov/oeps/disease/flu/Pages/fluSurveillance.aspx">http://dhhr.wv.gov/oeps/disease/flu/Pages/fluSurveillance.aspx</a>

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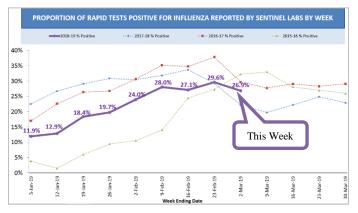
MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 590 residents responded to the MRITS survey this week. Of those, 11 (1.9%) reported having ILI and missing >13 cumulative days of regular daily activities.

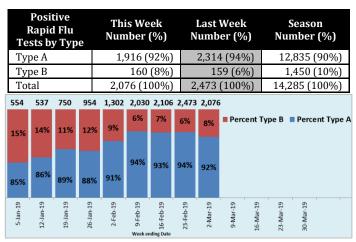


MRITS Respondents Reporting ILI By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	0 (0%)	0 (0%)	12 (7%)
Age 5-24	4 (36%)	1 (11%)	41 (25%)
Age 25-49	1 (9%)	6 (67%)	47 (29%)
Age 50-64	3 (27%)	1 (11%)	32 (20%)
Age ≥ 65	3 (27%)	1 (11%)	29 (18%)
Total	11 (100%)	9 (100%)	161 (100%)

### **Clinical Laboratory Influenza Testing**

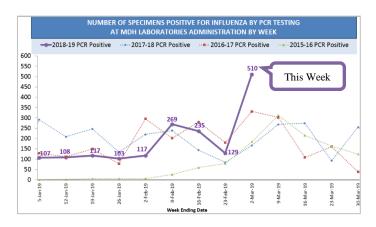
There were 63 clinical laboratories reporting 7,721 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 2,076 (26.9%) were positive for influenza. Of those testing positive, 1,916 (92%) were influenza Type A and 160 (8%) were influenza Type B. The reliability of RIDTs 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 600 PCR tests for influenza and 510 (85.0%) were positive for influenza. Of those testing positive, 381 (75%) were positive for Type A (H1), 125 (25%) were positive for Type A (H3), 3 (1%) were positive for Type B (Victoria) and 1 (<1%) was positive for Type B (Yamagata). 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.

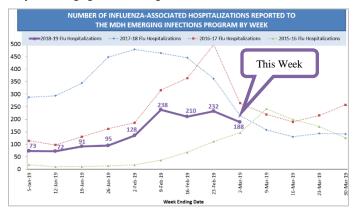


Positive PCR Tests by Type (Subtype)	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A (H1)	381 (75%)	99 (77%)	1,405 (76%)
Type A (H3)	125 (25%)	29 (22%)	361 (20%)
Type B (Victoria)	3 (1%)	0 (0%)	62 (3%)
Type B (Yamagata)	1 (<1%)	0 (0%)	8 (<1%)
Dual Type A (H1/H3)	0 (0%)	1 (1%)	1 (<1%)
Total	510 (100%)	129 (100%)	1,837 (100%)

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### **Influenza-associated Hospitalizations**

A total of 188 influenza-associated hospitalizations 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 Hospitalizations by Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	17 (9%)	21 (9%)	144 (9%)
Age 5-17	9 (5%)	9 (4%)	79 (5%)
Age 18-24	6 (3%)	7 (3%)	36 (2%)
Age 25-49	24 (13%)	43 (19%)	266 (17%)
Age 50-64	54 (29%)	61 (26%)	449 (29%)
Age ≥ 65	78 (41%)	91 (39%)	596 (38%)
Total	188 (100%)	232 (100%)	1,570 (100%)

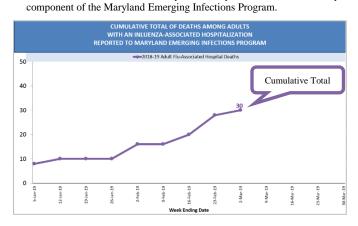
#### **Influenza-associated Deaths**

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

Pediatric Deaths: The total number of pediatric (< 18 years of age) deaths reported this influenza season is 1.

Influenza-associated pediatric mortality is a reportable condition in Maryland. Pediatric deaths are tracked without regard to hospitalization.

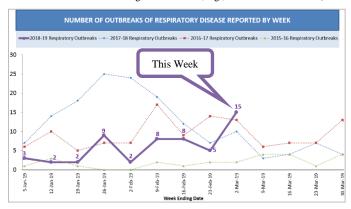
Adult Deaths Among Hospitalized Patients: A cumulative season total of 30 deaths have been reported among adults admitted to Maryland hospitals. Influenza-associated adult mortality is not a reportable condition in Maryland. However, surveillance for mortality in hospitalized adults is conducted as a



Influenza-Associated Deaths	Cumulative Season Total	
Pediatric Deaths (Age < 18)	1	
Adult Deaths (in hospitalized cases)	30	

### **Outbreaks of Respiratory Disease**

There were fifteen 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.)



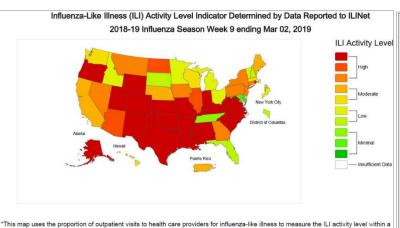
Respiratory Outbreaks by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Influenza	13 (87%)	4 (80%)	44 (63%)
Influenza-like Illness	2 (13%)	1 (20%)	14 (20%)
Pneumonia	0 (0%)	0 (0%)	12 (17%)
Other Respiratory	0 (0%)	0 (0%)	0 (0%)
Total	15 (100%)	5 (100%)	70 (100%)

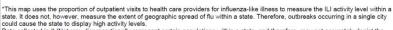
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# National Influenza Surveillance (CDC)

Influenza activity remains elevated in the United States. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate.

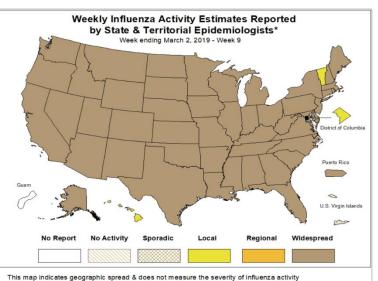
- Viral Surveillance: The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories increased slightly. Nationally, during week 9, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses. During the most recent three weeks, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses in HHS Regions 2, 4, 6, 7 and 8.
- O <u>Influenza-like Illness Surveillance:</u> The proportion of outpatient visits for influenza-like illness (ILI) decreased slightly to 4.7%, which is above the national baseline of 2.2%. All 10 regions reported ILI at or above their region-specific baseline level.
- Geographic Spread of Influenza: The geographic spread of influenza in Puerto Rico and 48 states was reported as widespread; the District of Columbia and two states reported local activity; the U.S. Virgin Islands reported sporadic activity; and Guam did not report.
- Influenza-associated Hospitalizations: A cumulative rate of 36.6 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (107.7 hospitalizations per 100,000 population).
- Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was above the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- Influenza-associated Pediatric Deaths: Nine influenza-associated pediatric deaths were reported to CDC during week 9. Eight deaths occurred during the 2018-2019 season and one death occurred during the 2015-2016 season.
- Outpatient Illness Surveillance: Nationwide during week 9, 4.7% 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 2.2%. (ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and cough and/or sore throat.)





Data collected in ILINet may disproportionally represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state.

Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map is based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data are received. Differences in the data presented here by CDC and independently by some state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.



#### Where to get an influenza vaccination

Interested in getting a flu vaccine for the 2018-19 influenza season? Go to <a href="https://phpa.health.maryland.gov/influenza/Pages/getvaccinated.aspx">https://phpa.health.maryland.gov/influenza/Pages/getvaccinated.aspx</a> 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.