Maryland Weekly Influenza Surveillance Activity Report

A summary of influenza surveillance indicators reported to Maryland Department of Health (MDH) for the week ending April 4, 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 April 4, 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 decreased from 6.8% to 5.9%. The percentage of outpatient visits for ILI reported by the Maryland Emergency Departments decreased. The percentage of specimens testing positive from clinical laboratories decreased from 3.4% to 2.1%. MDH Laboratories Administration reported an increase in percent positive specimens for influenza. There were sixteen influenza-associated hospitalizations. A total of fifty-four deaths associated with influenza have occurred this season among hospitalized adults.

Note: An increasing number of individuals are seeking medical attention for respiratory illness due to COVID-19. This may be affecting influenza ILI activity.

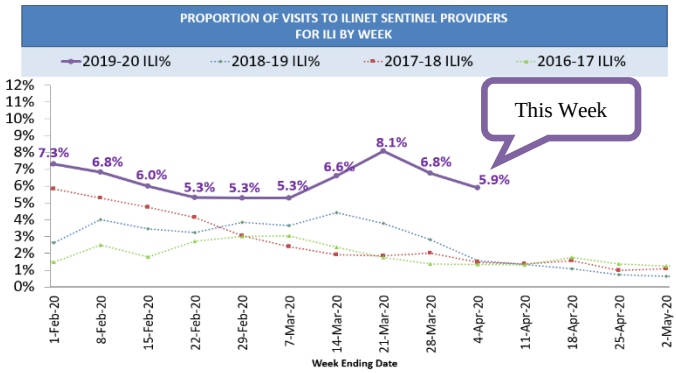
Click here to visit our influenza surveillance web page

ILI Activity Levels
Minimal
Low
Moderate
✓ High

Influenza Geographic Activity
No Activity
Sporadic
Local
Regional
✓ Widespread

ILINet Sentinel Providers

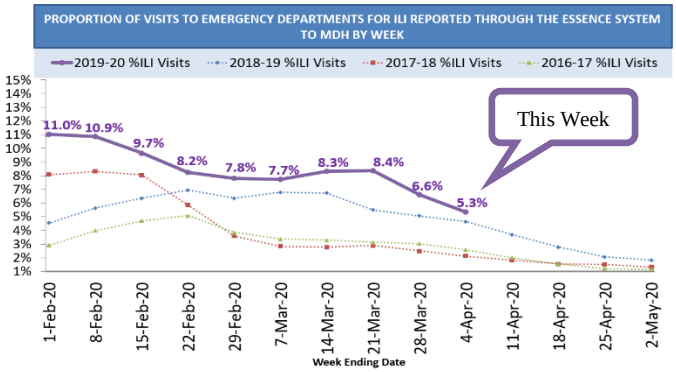
Fifty-seven providers reported a total of 23,883 visits this week. Of those 1,407 (5.9%) were visits for ILI. This is **ABOVE** the Maryland baseline of **1.9%**.



ILI Visits To Sentinel Providers By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	79 (6%)	178 (9%)	14,046 (24%)
Age 5-24	213 (15%)	345 (17%)	19,380 (33%)
Age 25-49	619 (44%)	877 (42%)	15,491 (26%)
Age 50-64	292 (21%)	442 (21%)	6,147 (10%)
Age ≥ 65	204 (14%)	241 (12%)	3,980 (7%)
Total	1,407 (100%)	2,083 (100%)	59,044 (100%)

Visits to Emergency Departments for ILI

Emergency Departments in Maryland reported a total of 29,244 visits this week through the ESSENCE surveillance system. Of those, 1,564 (5.3%) were visits for ILI.



ILI Visits To Emergency Departments By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	87 (6%)	193 (8%)	16,133 (17%)
Age 5-24	244 (16%)	390 (17%)	30,055 (32%)
Age 25-49	698 (45%)	985 (43%)	31,866 (33%)
Age 50-64	318 (20%)	473 (21%)	11,414 (12%)
Age ≥ 65	217 (14%)	259 (11%)	5,714 (6%)
Total	1,564 (100%)	2,300 (100%)	95,182 (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
Virginia	http://www.vdh.virginia.gov/epidemiology/influenza-flu-in-virginia/influenza-surveillance/
West Virginia	http://dhhr.wv.gov/oeps/disease/flu/Pages/fluSurveillance.aspx

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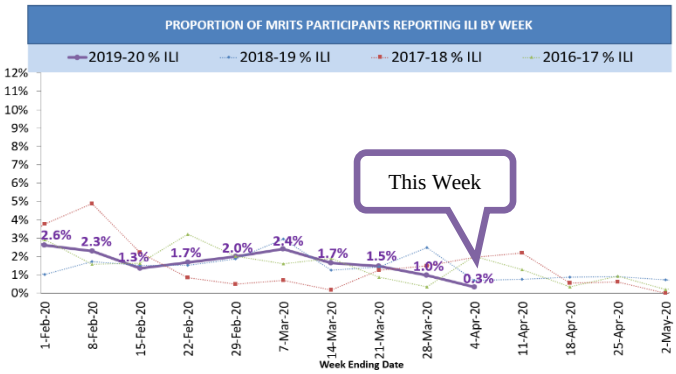
Community-based Influenza Surveillance (MRITS)

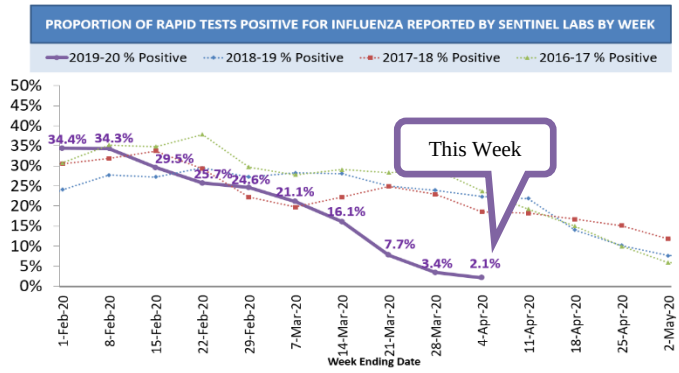
MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 611 residents responded to the MRITS survey this week. Of those, 2 (0.3%) reported having ILI and missing 1 day of regular daily activities.



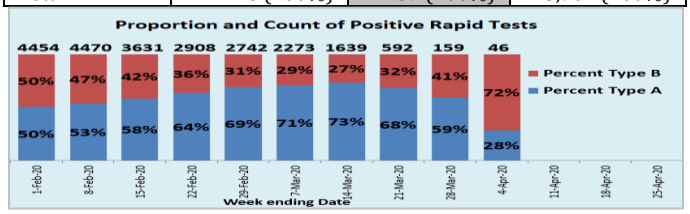
MRITS Respondents Reporting ILI By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	0 (0%)	0 (0%)	20 (8%)
Age 5-24	0 (0%)	1 (17%)	67 (28%)
Age 25-49	1 (50%)	2 (33%)	49 (21%)
Age 50-64	0 (0%)	2 (33%)	62 (26%)
Age ≥ 65	1 (50%)	1 (17%)	40 (17%)
Total	2 (100%)	6 (100%)	238 (100%)

Clinical Laboratory Influenza Testing

There were 59 clinical laboratories reporting 2,215 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 46 (2.1%) were positive for influenza. Of those testing positive, 13 (28%) were influenza Type A and 33 (72%) 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.

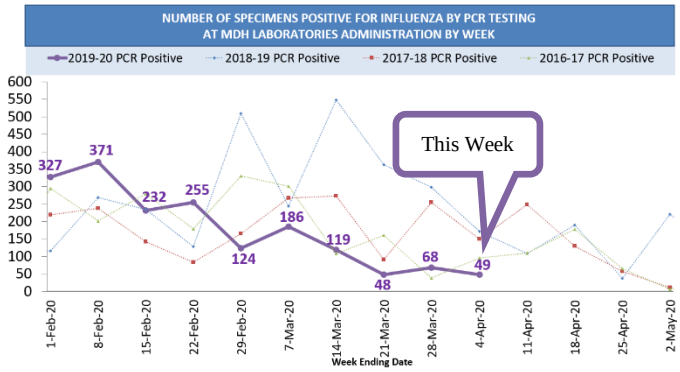


Positive Rapid Flu Tests by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A	13 (28%)	94 (59%)	21,142 (48%)
Type B	33 (72%)	65 (41%)	22,765 (52%)
Total	46 (100%)	159 (100%)	43,907 (100%)



State Laboratories Administration Influenza Testing

The MDH Laboratories Administration performed a total of 73 polymerase chain reaction (PCR) tests for influenza and 49 (67.1%) 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.



Positive PCR Tests by Type (Subtype)	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A (H1)	35 (71%)	48 (71%)	1,984 (56%)
Type A (H3)	3 (6%)	19 (28%)	150 (4%)
Type B (Victoria)	10 (20%)	0 (0%)	1,412 (40%)
Type B (Yamagata)	1 (2%)	0 (0%)	20 (1%)
Dual Type A(H1/H3)	0 (0%)	1 (1%)	1 (<1%)
Total	49 (100%)	68 (100%)	3,567 (100%)

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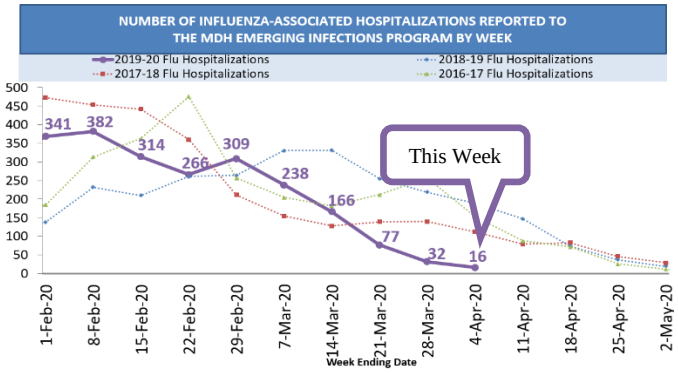
Influenza-associated Hospitalizations

Sixteen 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.



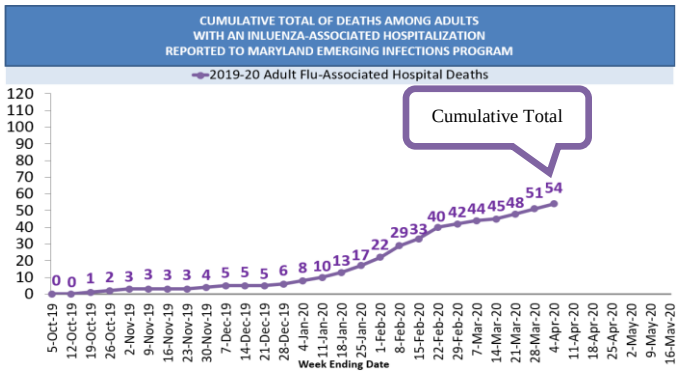
Influenza-Associated Hospitalizations by Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	1 (6%)	0 (0%)	367 (9%)
Age 5-17	0 (0%)	0 (0%)	223 (6%)
Age 18-24	0 (0%)	0 (0%)	156 (4%)
Age 25-49	5 (31%)	3 (9%)	781 (20%)
Age 50-64	3 (19%)	8 (25%)	932 (24%)
Age ≥ 65	7 (44%)	21 (66%)	1,460 (37%)
Total	16 (100%)	32 (100%)	3,919 (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: 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.

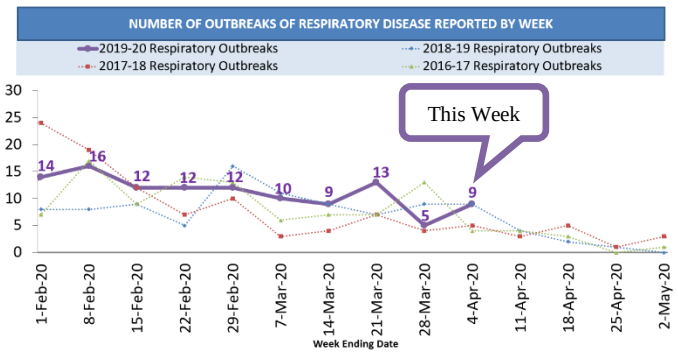
Adult Deaths Among Hospitalized Patients: Fifty-four deaths have been reported among adults admitted to Maryland hospitals this influenza season. Influenza-associated adult mortality is ***not*** a reportable condition in Maryland. However, surveillance for mortality in hospitalized adults is conducted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



Influenza-Associated Deaths	Cumulative Season Total
Pediatric Deaths (Age < 18)	5
Adult Deaths (in hospitalized cases)	54

Outbreaks of Respiratory Disease

There were nine 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	0 (0%)	1 (20%)	120 (70%)
Influenza-like Illness	6 (67%)	2 (40%)	33 (19%)
Pneumonia	3 (33%)	2 (40%)	17 (10%)
Other Respiratory (non-COVID-19)	0 (0%)	0 (0%)	1 (1%)
Total	9 (100%)	5 (100%)	171 (100%)

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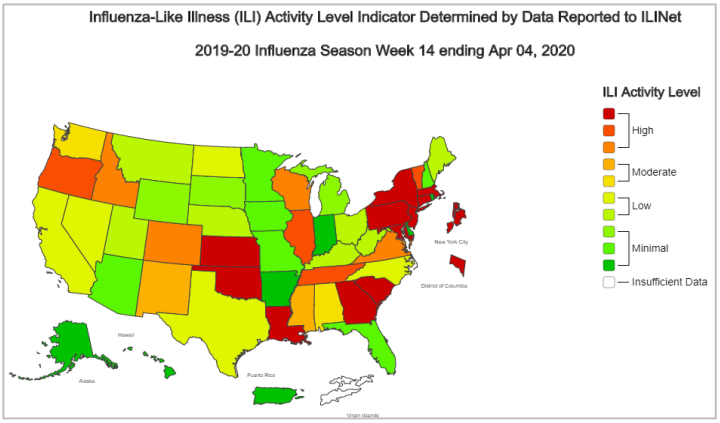
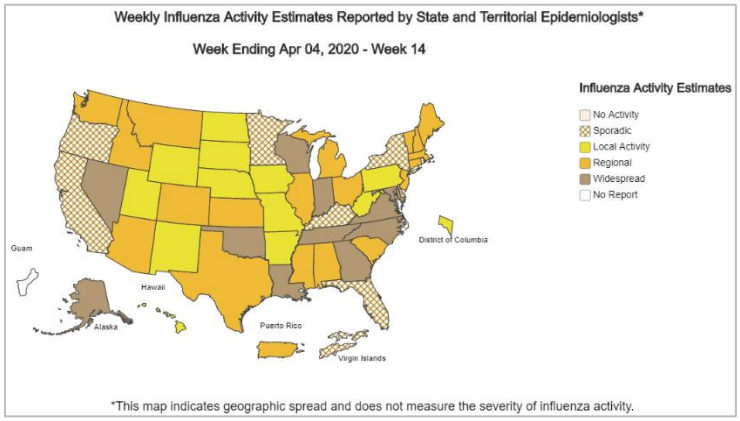
National Influenza Surveillance (CDC)

Laboratory confirmed flu activity as reported by clinical laboratories continues to decrease sharply and is now low. Influenza-like illness activity, while lower than last week, is still elevated. Influenza severity indicators remain moderate to low overall, but hospitalization rates differ by age group, with high rates among children and young adults.

- **Viral Surveillance:** The percentage of respiratory specimens testing positive for influenza at clinical laboratories decreased from 2.1% last week to 0.8% this week.
- **Influenza-like Illness Surveillance:** Visits to health care providers for influenza-like illness (ILI) decreased from 5.2% last week to 3.9% this week. All regions are above their baselines.
- **Geographic Spread of Influenza:** The number of jurisdictions reporting regional or widespread influenza activity decreased from 41 last week to 31 this week.
- **Pneumonia and Influenza Mortality:** The percentage of deaths attributed to pneumonia and influenza is 10.0%, above the epidemic threshold of 7.1%.
- **Influenza-associated Pediatric Deaths:** 4 influenza-associated pediatric deaths occurring during the 2019-2020 season were reported this week. The total for the season is 166.
- **Outpatient Illness Surveillance:** Nationwide during week 14, 3.9% 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 2.4% to 10.0% during week 14. All regions decreased in percentage of outpatient visits for ILI compared to last week, but 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.

Influenza Geographic Activity Levels	Definition
No Activity	No lab-confirmed cases
Sporadic	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
Local	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
Regional	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
Widespread	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

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 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.