

A summary of influenza surveillance indicators reported to Maryland Department of Health (MDH) for the week ending January 18, 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

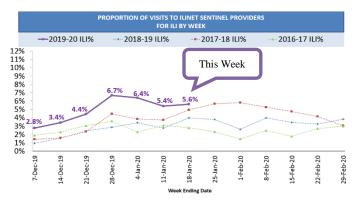
During the week ending January 18, 2020 influenza-like illness (ILI) activity in Maryland was **HIGH** and there was **WIDESPREAD** geographic activity. The percentage of outpatient visits for ILI reported by Sentinel Providers and by the Maryland Emergency Departments increased. The percentage of specimens testing positive from clinical laboratories increased from 28.0% to 33.6%, with a continued decrease in the number of specimens testing positive for influenza B. MDH Laboratories Administration reported an increase in percent positive specimens for influenza – the third consecutive week it has increased. MDH investigated nineteen respiratory outbreaks this week, and influenza accounted for the majority of the outbreaks. **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

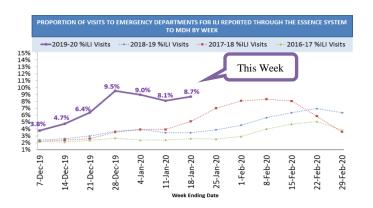
Fifty-nine providers reported a total of 47,408 visits this week. Of those 2,670 (5.6%) were visits for ILI. This is ABOVE the Maryland baseline of 1.9%.



ILI Visits To Sentinel Providers By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	589 (22%)	737 (26%)	7,571 (29%)
Age 5-24	926 (35%)	884 (31%)	8,513 (33%)
Age 25-49	725 (27%)	771 (27%)	5,911 (23%)
Age 50-64	247 (9%)	289 (10%)	2,152 (8%)
Age ≥ 65	183 (7%)	180 (6%)	1,607 (6%)
Total	2,670 (100%)	2,861 (100%)	25,754 (100%)

Visits to Emergency Departments for ILI

Emergency Departments in Maryland reported a total of 61,059 visits this week through the ESSENCE surveillance system. Of those, 5,296 (8.7%) were visits for ILL.



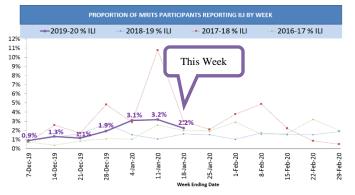
ILI Visits To Emergency Departments By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	876 (17%)	827 (16%)	9,098 (21%)
Age 5-24	1,942 (37%)	1,488 (29%)	14,080 (33%)
Age 25-49	1,683 (32%)	1,838 (36%)	12,968 (30%)
Age 50-64	545 (10%)	638 (13%)	4,307 (10%)
Age ≥ 65	250 (5%)	293 (6%)	2,346 (5%)
Total	5,296 (100%)	5,084 (100%)	42,799 (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)

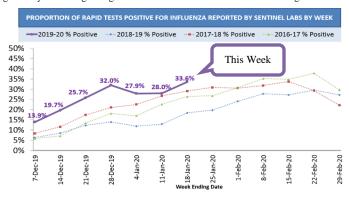
MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 627 residents responded to the MRITS survey this week. Of those, 14 (2.2%) reported having ILI and missing greater than 34 days of regular daily activities.



MRITS Respondents Reporting ILI By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	1 (7%)	1 (6%)	14 (12%)
Age 5-24	4 (29%)	3 (18%)	23 (20%)
Age 25-49	2 (14%)	3 (18%)	23 (20%)
Age 50-64	4 (29%)	8 (47%)	36 (31%)
Age ≥ 65	3 (21%)	2 (12%)	20 (17%)
Total	14 (100%)	17 (100%)	116 (100%)

Clinical Laboratory Influenza Testing

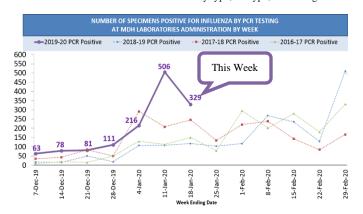
There were 67 clinical laboratories reporting 8,718 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 2,930 (33.6%) were positive for influenza. Of those testing positive, 1,256 (43%) were influenza Type A and 1,674 (57%) were influenza Type B. The <u>reliability of RIDTs</u> 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.



Ra	ositiv ipid F s by T	lu			Veek r (%)			Week ber (%			eason iber ('	
Туре	A			1,256	6 (43%	6)	99	0 (37%	5)	5,4	49 (3	3%)
Туре	B			1,674	ł (57%	6)	1,72	3 (63%)	11,3	317 (6	7%)
Tota	1		2	2,930	(100%	6)	2,713	(100%	5)	16,76	66 (10	0%)
Proportion and Count of Positive Rapid Tests 677 1122 1890 3414 3024 2713 2930 71% 72% 73% 68% 63% 57% ■ Percent Type B 29% 28% 23% 27% 32% 37% 43%												
7-Dec-19	14-Dec-19	21-Dec-19	28-Dec-19	4-Jan-20	Meek Meek	autine 20	ate 25-Jan-20	1-Feb-20	8-Feb-20	15-Feb-20	22-Feb-20	29-Feb-20

State Laboratories Administration Influenza Testing

The MDH Laboratories Administration performed a total of 392 polymerase chain reaction (PCR) tests for influenza and 329 (84%) 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.

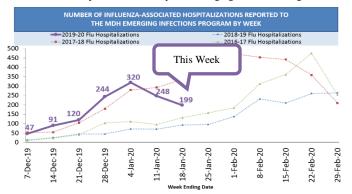


Positive PCR Tests by Type (Subtype)	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A (H1)	118 (36%)	215 (42%)	545 (38%)
Type A (H3)	10 (3%)	25 (5%)	75 (5%)
Type B (Victoria)	199 (60%)	265 (52%)	805 (56%)
Type B (Yamagata)	2 (1%)	1 (<1%)	10 (1%)
Dual Type A(H1/H3)	0 (0%)	0 (0%)	0 (0%)
Total	329 (100%)	506 (100%)	1,435 (100%)

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Influenza-associated Hospitalizations

One hundred and ninety-nine 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	16 (8%)	22 (9%)	169 (12%)
Age 5-17	14 (7%)	12 (5%)	106 (8%)
Age 18-24	10 (5%)	16 (6%)	75 (5%)
Age 25-49	33 (17%)	68 (27%)	310 (22%)
Age 50-64	52 (26%)	47 (19%)	278 (20%)
Age ≥ 65	74 (37%)	83 (33%)	472 (33%)
Total	199 (100%)	248 (100%)	1,410 (100%)

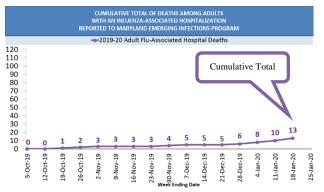
Influenza-associated Deaths

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

Pediatric Deaths: A total of two pediatric (< 18 years of age) deaths have been reported to MDH this season. One of the deaths occurred during week 2 while the other occurred in week 1. Both deaths 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.

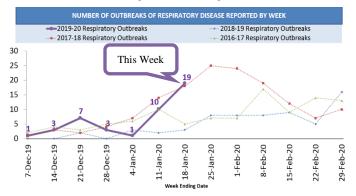
Adult Deaths Among Hospitalized Patients: Thirteen deaths have been reported among adults admitted to Maryland hospitals this influenza season. Influenza-associated adult mortality is *not* a reportable condition in Maryland. However, surveillance for mortality in hospitalized adults is conducted as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



Influenza-Associated Deaths	Cumulative Season Total
Pediatric Deaths (Age < 18)	2
Adult Deaths (in hospitalized cases)	13

Outbreaks of Respiratory Disease

There were nineteen 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.)



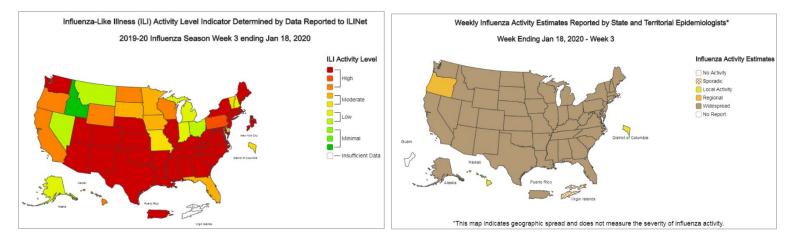
Respiratory Outbreaks by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Influenza	14 (74%)	8 (80%)	28 (56%)
Influenza-like Illness	5 (26%)	0 (0%)	17 (34%)
Pneumonia	0 (0%)	2 (20%)	5 (10%)
Other Respiratory	0 (0%)	0 (0%)	0 (0%)
Total	19 (100%)	10 (100%)	50 (100%)

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National Influenza Surveillance (CDC)

Key indicators that track flu activity remain high and, after falling during the first two weeks of the year, increased slightly this week. Indicators that track severity (hospitalizations and deaths) are not high at this point in the season.

- <u>Viral Surveillance</u>: Nationally, B/Victoria viruses are the predominant viruses this season; however, during recent weeks, approximately equal numbers of B/Victoria and A(H1N1)pdm09 viruses have been reported.
- Influenza-like Illness Surveillance: Visits to health care providers for influenza-like illness (ILI) increased from 4.7% last week to 5.0% this week. All regions remain above their baselines.
- O Geographic Spread of Influenza: The number of jurisdictions reporting regional or widespread influenza activity remained at 50 this week.
- <u>Pneumonia and Influenza Mortality:</u> The percentage of deaths attributed to pneumonia and influenza decreased from 7.1% to 6.7% and is below the epidemic threshold.
- Influenza-associated Pediatric Deaths: Fifteen new influenza-associated pediatric deaths occurring during the 2019-2020 season were reported this week. The total for the season is 54.
- Outpatient Illness Surveillance: Nationwide during week 3, 5.0% 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 3.2% to 7.3% during week 3. All regions reported a percentage of outpatient visits for ILI which is above their region-specifc 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.