Maryland Weekly Influenza Surveillance Activity Report

A summary of influenza surveillance indicators reported to MDH for the week ending April 21, 2018

Prepared by the Infectious Disease Epidemiology and Outbreak Response Bureau
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 April 21, 2018, influenza-like illness (ILI) intensity in Maryland was **MINIMAL** and there was **LOCAL** geographic activity. The proportion of outpatient visits for ILI reported by Sentinel Providers increased. The proportion of outpatient visits for ILI reported by Maryland Emergency Departments decreased. The proportion of MRITS respondents reporting ILI decreased. Clinical laboratories reported a decrease in the proportion of specimens testing positive for influenza. One hundred thirty-one specimens tested positive for influenza at the MDH lab. There were 56 influenza-associated hospitalizations. The cumulative season number of influenza-associated deaths among hospitalized adults was 103. Five respiratory outbreaks were reported to MDH.

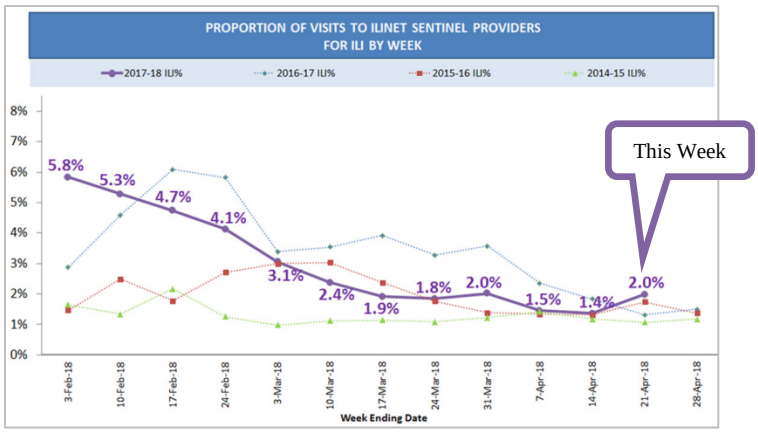
Click here to visit our influenza surveillance web page

ILI Intensity Levels
✔Minimal
Low
Moderate
High

Influenza Geographic Activity
No Activity
Sporadic
✔Local
Regional
Widespread

ILINet Sentinel Providers

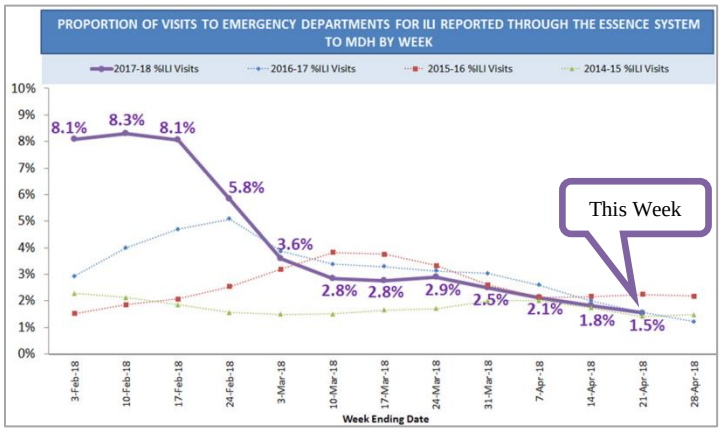
Twenty-one sentinel providers reported a total of 4,931 visits this week. Of those, 98 (2.0%) were visits for ILI. This is **at** the Maryland baseline of **2.0%**.



ILI Visits To Sentinel Providers By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	20 (20%)	28 (29%)	1,251 (23%)
Age 5-24	33 (34%)	42 (44%)	2,225(40%)
Age 25-49	22 (22%)	9 (9%)	1,152 (21%)
Age 50-64	17 (17%)	7 (7%)	591 (11%)
Age ≥ 65	6 (6%)	10 (10%)	279 (5%)
Total	98 (100%)	96 (100%)	5,498 (100%)

Visits to Emergency Departments for ILI

Emergency Departments in Maryland reported a total of 43,391 visits this week through the ESSENCE surveillance system. Of those, 669 (1.5%) were visits for ILI.



ILI Visits To Emergency Departments By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	129 (19%)	178 (22%)	10,054 (24%)
Age 5-24	186 (28%)	222 (28%)	11,950 (28%)
Age 25-49	178 (27%)	214 (27%)	11,054 (26%)
Age 50-64	96 (14%)	100 (13%)	5,334 (13%)
Age ≥ 65	80 (12%)	80 (10%)	4,184 (10%)
Total	669 (100%)	794 (100%)	42,576 (100%)

Neighboring states' influenza information:

Delaware	http://dhss.delaware.gov/dph/epi/influenzahome.html
District of Columbia	http://doh.dc.gov/service/influenza
Pennsylvania	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	http://dhhr.wv.gov/oeps/disease/flu/Pages/fluSurveillance.aspx

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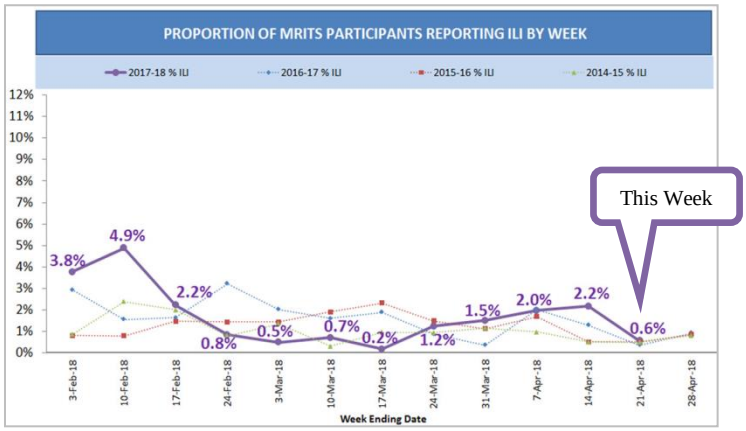
Community-based Influenza Surveillance (MRITS)

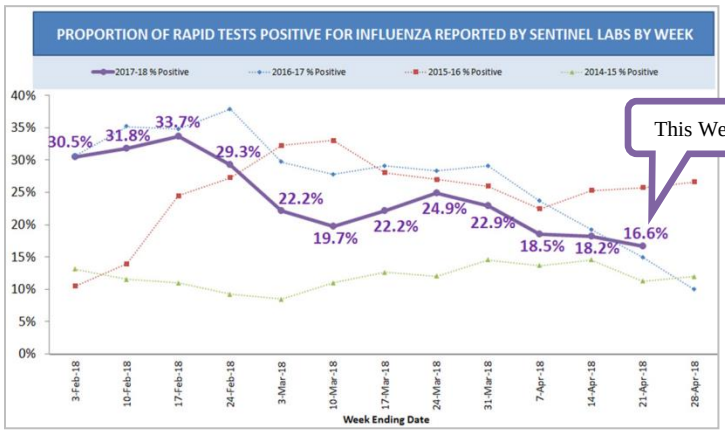
MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 538 residents responded to the MRITS survey this week. Of those, 3 (0.6%) reported having ILI and missing greater than 9 cumulative days of regular daily activities.



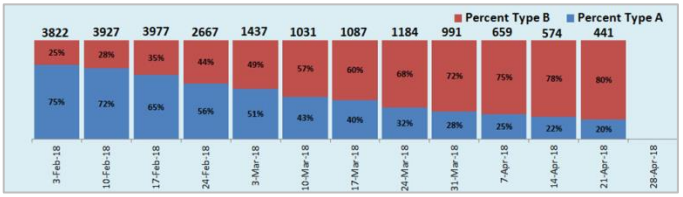
MRITS Respondents Reporting ILI By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	--	--	8 (3%)
Age 5-24	1 (33%)	2 (17%)	83 (31%)
Age 25-49	--	3 (25%)	55 (20%)
Age 50-64	1 (33%)	5 (42%)	96 (35%)
Age ≥ 65	1 (33%)	2 (17%)	30 (11%)
Total	3 (100%)	12 (100%)	272 (100%)

Clinical Laboratory Influenza Testing

There were 48 clinical laboratories reporting 2,651 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 441 (16.6%) were positive for influenza. Of those testing positive, 88 (20%) were influenza Type A and 353 (80%) 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.

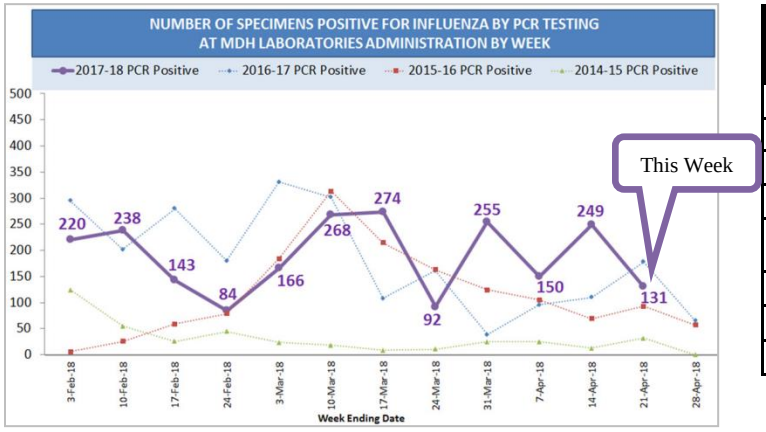


Positive Rapid Flu Tests by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A	88 (20%)	129 (22%)	21,633 (65%)
Type B	353 (80%)	445 (78%)	11,638 (35%)
Total	441 (100%)	574 (100%)	33,271 (100%)



State Laboratories Administration Influenza Testing

The MDH Laboratories Administration performed a total of 233 PCR tests for influenza and 131 (56.2%) were positive for influenza. Of those testing positive, 40 (30.5%) were positive for Type A (H3), 19 (14.5%) were positive for Type A (H1), 52 (39.7%) were positive for Type B (Yamagata), 19 (14.5%) were positive for Type B (Victoria), and there was 1 (0.8%) dual infection with Type A(H1/H3). 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)	19 (15%)	33 (13%)	596 (18%)
Type A (H3)	40 (31%)	74 (30%)	1,951 (57%)
Type B (Victoria)	19 (15%)	26 (10%)	120 (4%)
Type B (Yamagata)	52 (40%)	116 (47%)	720 (21%)
Dual Type A (H1/H3)	1 (1%)	--	4 (<1%)
Dual Type A(H3)/B	--	--	11 (<1%)
Type A (H3N2v)	--	--	3 (<1%)
Total	131 (100%)	249 (100%)	3,405 (100%)

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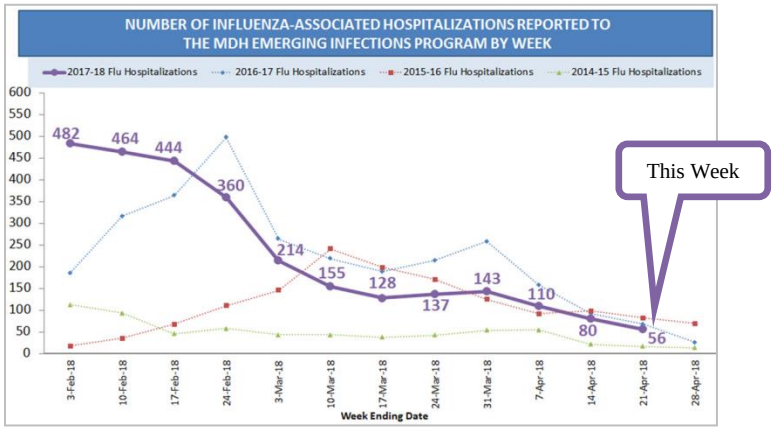
Influenza-associated Hospitalizations

A total of 56 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.

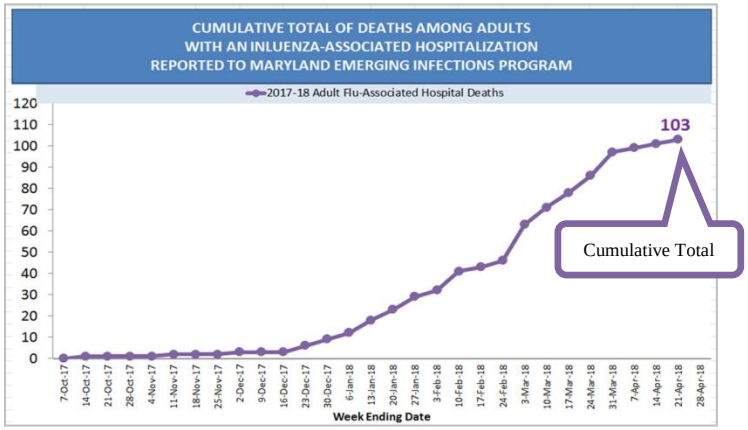


Influenza-Associated Hospitalizations by Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	2 (4%)	3 (4%)	285 (6%)
Age 5-17	4 (7%)	2 (3%)	220 (5%)
Age 18-24	3 (5%)	1 (1%)	121 (3%)
Age 25-49	6 (11%)	10 (13%)	574 (12%)
Age 50-64	11 (20%)	27 (34%)	1,000 (21%)
Age ≥ 65	30 (54%)	37 (46%)	2,464 (53%)
Total	56 (100%)	80 (100%)	4,664 (100%)

Influenza-associated Deaths

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

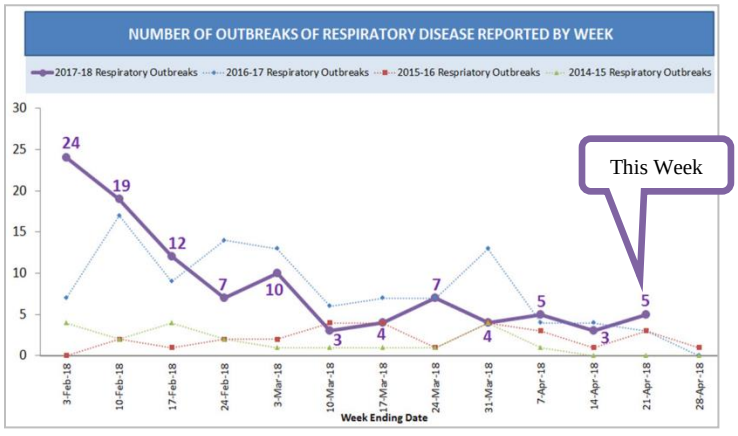
Pediatric Deaths: The total number of pediatric (< 18 years of age) deaths reported this influenza season is 3.
Influenza-associated pediatric mortality is a reportable condition in Maryland. Pediatric deaths are tracked without regard to hospitalization.
Adult Deaths Among Hospitalized Patients: A total of 103 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, adult mortality surveillance is conducted as a component of the Maryland Emerging Infections Program's influenza-associated hospitalization surveillance.



Influenza-Associated Deaths	Cumulative Season Total
Pediatric Deaths (Age < 18)	3
Adult Deaths (in hospitalized cases)	103

Outbreaks of Respiratory Disease

There were five 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	4 (80%)	3 (100%)	149 (80%)
Influenza-like Illness	--	--	24 (13%)
Pneumonia	1 (20%)	--	14 (7%)
Other Respiratory	--	--	--
Total	5 (100%)	3 (100%)	187 (100%)

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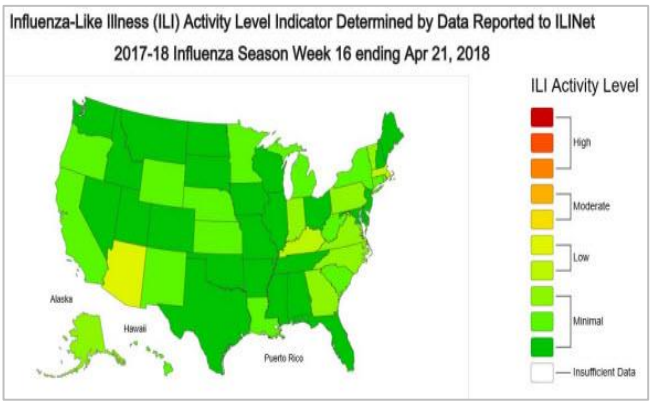
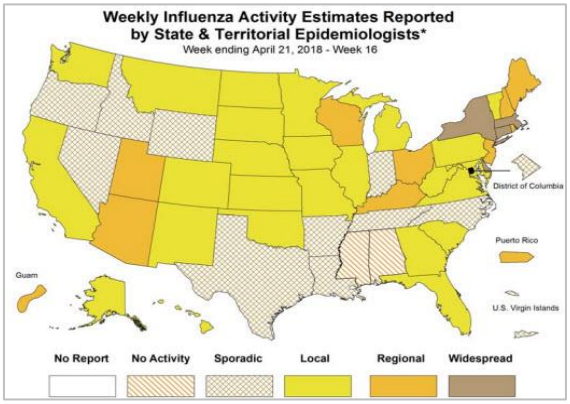
National Influenza Surveillance (CDC)

During week 16 (April 15-21, 2018), influenza activity decreased in the United States.

- **Viral Surveillance:** Overall, influenza A(H3) viruses have predominated this season. Since early March, influenza B viruses have been more frequently reported than influenza A viruses. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased.
- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- **Influenza-associated Pediatric Deaths:** Four influenza-associated pediatric deaths were reported.
- **Influenza-associated Hospitalizations:** A cumulative rate of 105.3 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 1.7%, which is below the national baseline of 2.2%. One of 10 regions reported ILI at or above their region-specific baseline level. Three states experienced low ILI activity; and New York City, the District of Columbia, Puerto Rico, and 47 states experienced minimal ILI activity.
- **Geographic Spread of Influenza:** The geographic spread of influenza in four states was reported as widespread; Guam, Puerto Rico and nine states reported regional activity; 25 states reported local activity; the District of Columbia, the U.S. Virgin Islands and 10 states reported sporadic activity; and two states reported no influenza activity.





Where to get an influenza vaccination

Interested in getting a flu vaccine for the 2017-18 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.