Maryland Influenza Plan

2013-2014 Flu Season

Table of Contents

I. Introduction 3

II. Purpose 3

III. Definitions 4

IV. Pre Flu Activity 5

Tips for Maryland Residents 5
State and Local Health Department Actions 5
Healthcare Systems and Provider Actions 6
High Impact and Pandemic Threat Indicators 6

V. Early Flu Activity 7

Tips for Maryland Residents 7
State and Local Health Department Actions 7
Healthcare Systems and Provider Actions 8
High Impact and Pandemic Threat Indicators 8

VI. Peak Flu Activity 9

Tips for Maryland Residents 9
State and Local Health Department Actions 9
Healthcare Systems and Provider Actions 10
High Impact and Pandemic Threat Indicators 10
Severe Flu Impact Factors and Threshold 11
Additional Considerations for Mitigating a Severe Flu Impact 12

VII. Late Flu Activity 13

Tips for Maryland Residents 13
State and Local Health Department Actions 13
Healthcare Systems and Provider Actions 13
High Impact and Pandemic Threat Indicators 13

VIII. Conclusion 14

Annex A: Local Health Department Contact Information 15
Annex B: Summary of 2013-2014 Recommendations from the Advisory Committee on Immunization Practices (ACIP) 16

I. Introduction

Influenza ("flu") is a contagious respiratory illness caused by the influenza virus. Influenza virus strains perennially circulate throughout the world. In the northern hemisphere, flu season can begin as early as October and last as late as May. The flu virus can cause mild to severe illness and at times can lead to death. Older people, young children, and people with certain health conditions are at higher risk for serious flu complications. **The best way to prevent the flu is by getting vaccinated each year.**

Influenza is spread by airborne droplets made when an infected person coughs, sneezes, or talks. Less often, a person might also get flu by touching a surface or object that has flu virus on it and then touching their own mouth, eyes, or nose.

You may be able to pass on the flu to someone else even before you know you are sick, as well as while you are sick. Most healthy adults may be able to infect others beginning 1 day before symptoms develop and up to 5-7 days after becoming sick. Some people, especially children and people with weakened immune systems, might be able to infect others for an even longer time.

Flu seasons occur each year with varying severity. Estimates of flu-associated deaths range from a low of about 3,000 to a high of about 49,000 people in the United States per year between 1976 and 2006.

During 2009-2010, a new and very different flu virus called 2009 H1N1 spread worldwide causing the first flu pandemic in more than 40 years. It is estimated that the 2009 H1N1 pandemic resulted in more than 12,000 flu-related deaths in the U.S. In contrast to typical flu seasons, nearly 90 percent of the deaths occurred among people younger than 65 years of age.

Additional Resources

CDC Flu Information: http://www.cdc.gov/flu/
Maryland Flu Information: http://flu.maryland.gov
Maryland Flu Surveillance: http://phpa.dhmh.maryland.gov/influenza/fluwatch/SitePages/Home.aspx

II. Purpose

The Maryland Department of Health and Mental Hygiene (DHMH) developed the Maryland Influenza Plan in order to prepare for, prevent, and mitigate the number and severity of influenza cases within the state. Residents, healthcare providers, and public health personnel can all help minimize the impact of seasonal influenza. This plan acts as a guide for Maryland residents, public health departments, and the healthcare community. The Maryland Influenza Plan will categorize flu activity by stages and include information for each audience type. Additionally, this document includes high impact and pandemic threat triggers that can aid in the identification of outlier influenza activity potentially caused by an unusual flu season or a pandemic.

III. Definitions

Antiviral medications are prescription medications that can be used to prevent or treat the flu.

Community prevention and mitigation are tactics used by public health officials and the general public to reduce the effects of the flu.

Early flu activity is a period characterized by the presence of some confirmed cases of influenza after flu has been confirmed in Maryland during the flu season. Geographic spread of influenza in Maryland is either sporadic or local and ILI intensity is minimal or low.

ESSENCE is the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE), a system used to gather, manage, and analyze health-related data to identify early warning of public health threats, hazards, and incidents.

Influenza-like illness (ILI) is a syndrome characterized by fever and cough and/or sore throat. ILI indicates a possible influenza infection but has not been confirmed by a laboratory test.

Influenza vaccination is a preventive medical intervention administered through an injectable or nasal spray that reduces the likelihood of an individual being infected by seasonal flu.

Late flu activity is a period characterized by decreasing levels of influenza in Maryland.

MRITS is the Maryland Resident Influenza Tracking Survey (MRITS), an online system designed to measure ILI in Maryland based on illness reported directly by residents each week.

Pandemic influenza occurs when a novel influenza A virus emerges for which there is no or little immunity in the human population. In the past, pandemic strains have caused serious illness and have spread easily from person-to-person worldwide.

Peak flu activity is a period characterized by an increase in confirmed cases of influenza in Maryland. Geographic spread of influenza in Maryland is either regional or widespread and ILI intensity is moderate or high.

Pre flu activity is a period characterized by the absence or minimal presence of influenza throughout Maryland prior to the beginning of flu season.

Seasonal influenza is annual outbreaks of flu that typically occur during the late fall through early spring. A seasonal flu vaccine is available each year. In a typical year, approximately 5 to 20 percent of the population gets the seasonal flu.

Social Distancing is a set of nonpharmaceutical intervention tactics with the purpose of reducing the number of close interpersonal contacts and the spread of influenza.

Surveillance is epidemiological activities of gathering and analyzing data to provide situational awareness, track health trends, and help guide actions.

IV. Pre Flu Activity

DEFINITION: ***Pre flu activity is characterized by the absence or minimal presence of influenza throughout Maryland prior to the beginning of flu season.***

TIME PERIOD: ***Prior to the first laboratory-confirmed case of influenza in Maryland; typically June through September***

Tips for Maryland Residents

- The best way to prevent influenza is by being vaccinated. Vaccination will be most effective if you receive a flu shot or intranasal mist in the late summer or fall.
- Identify the best location to receive your annual flu vaccination. Many primary-care physicians have the vaccine available. Vaccine is also available at pharmacies and health clinics and can be found here: http://flushot.healthmap.org/.
- Live a healthy lifestyle. This includes regularly washing your hands, avoiding touching your eyes, nose, and mouth, and avoiding close contact with sick people.
- Register for the Maryland Resident Influenza Tracking Survey to help us track flu in Maryland: http://flusurvey.dhmh.md.gov/.

State and Local Health Department Actions

Epidemiological and Laboratory

- Review the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunizations Practices (ACIP) vaccine recommendations for the upcoming flu season.
- Monitor flu activity in other parts of the world to identify likely flu strains that could affect Maryland during the next flu season.
- Monitor any disease outbreaks with patients exhibiting upper-respiratory infections or symptoms of influenza-like illness (ILI).
- Monitor ILI-activity in hospital emergency departments in the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) for statistically significant warnings and threats.
- Monitor hospitalizations in persons with laboratory-confirmed influenza
- Monitor MRITS reports
- Monitor sentinel provider and sentinel lab reports
- Conduct laboratory testing to identify and confirm any flu cases prior to the beginning of flu season or early flu activity stage.
- Monitor flu activity in the southern hemisphere to inform decision-making.

Communication and Public Information

- Develop materials and coordinate public health messaging; encourage vaccination.
- Provide information for healthcare community, including recommendations on vaccine ordering and availability and current vaccine information sheets (VIS).
- Provide update on vaccine supplies and distribution.
- Announce seasonal flu clinics at schools and local health departments.
- Provide media with preventive measures including hand washing and cough etiquette.
- Hold a flu vaccination kick-off event with senior DHMH leadership.

Community Prevention and Mitigation

- Assess cache of medical countermeasures and equipment.
- Update antiviral medications distribution plan and Maryland Influenza Plan.
- DHMH issues a letter to clinicians to encourage the promotion of seasonal flu vaccination in patients.
- DHMH receives and distribute vaccine to local providers and local health departments within the vaccines for children (VFC) program.

Healthcare Systems and Providers Actions

- Vaccinate beginning as soon as flu vaccine is available.
- Vaccinate healthcare workers and staff.
- Review plans and prevention strategies for seasonal influenza in the healthcare setting, including implementation of respiratory hygiene, appropriate management of ill staff, and infection control precautions. CDC guidance can be found: http://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm.

High Impact and Pandemic Threat Indicators

- The detection of a novel influenza strain through routine year-round surveillance, case investigation, or outbreak investigation.
- Monitor ESSENCE data to detect any potential increase in ILI outside of typical flu season.
- Track data to detect potential outbreaks of ILI outside of typical flu season.

V. Early Flu Activity

DEFINITION: ***Early flu activity is characterized by the presence of one or more confirmed cases of influenza in Maryland. Geographic spread of influenza in Maryland is either sporadic or local and ILI intensity is minimal or low.***

TIME PERIOD: ***Beginning after the first laboratory-confirmed case of influenza in Maryland has been identified and lasting until influenza increases in intensity and spread.***

Tips for Maryland Residents

- Get vaccinated against the flu if you have not done so already. Vaccination is the best way to prevent influenza.
- Continue to practice hand hygiene and cough etiquette, such as coughing into your sleeve.
- Stay home from work or school if you are sick or have flu-like symptoms
- Stay informed by monitoring DHMH's influenza surveillance reporting website: http://phpa.dhmh.maryland.gov/influenza/fluwatch/SitePages/Home.aspx.

State and Local Health Department Actions

Epidemiological and Laboratory

- Examine data obtained from ILINet sentinel providers.
- Examine data obtained from clinical laboratories.
- Monitor the Maryland Resident Influenza Tracking Survey (MRITS).
- Monitor and review ESSENCE hospital emergency department ILI data.
- Investigate influenza / ILI outbreaks.
- Monitor severity of virus including number of hospitalizations and deaths.
- Monitor reportable conditions related to flu including pneumonia cases in healthcare workers, hospitalizations, pediatric flu deaths, and novel strains of Type A influenza.
- Monitor ILI-activity in hospital emergency departments in ESSENCE for statistically significant warnings and threats.
- Monitor hospital emergency department status, intensive care units, and hospital bed capacities.
- Provide confirmatory testing of viral specimens in DHMH laboratory.
- Monitor characterization of virus including subtypes and resistance to antiviral medications.
- Monitor vaccine supply and availability.
- Provide recommendations regarding the use of antiviral medications.
- Post weekly surveillance summaries on the DHMH website and distribute to partners.

Communication and Public Information

- Issue a press release and blog post announcing the first case of influenza in Maryland.
- Provide educational messages including vaccine promotion and steps to take if you get sick.
- Announce seasonal flu clinic dates and locations.
- Communicate disease severity and monitor news coverage.
- DHMH coordinates information sharing between healthcare partners and health departments.

Community Prevention and Mitigation

- DHMH reports first confirmed flu case to healthcare and preparedness partners, including the Maryland Joint Operations Center (MJOC).
- Issue information on first cases of influenza to local public health and healthcare partners. Consider conducting a conference call for more specific information sharing needs.
- Follow CDC guidance and recommendations for use of antiviral medications.

Healthcare Systems and Providers Actions

- Continue to vaccinate all residents, including children, adults, and high-risk patients.
- Healthcare systems should continue to vaccinate healthcare workers.
- Clinicians should encourage seasonal flu vaccine for every patient, especially any in risk categories for complications due to influenza.
- Implement infection control practices in the healthcare settings. This may include adherence to standard precautions for hand hygiene and use of personal protective equipment.

High Impact and Pandemic Threat Indicators

- Laboratory suspected or confirmed test showing a novel strain of influenza
- Initial severe flu cases (hospitalizations or deaths) in atypical population, such as healthy adults

VI. Peak Flu Activity

DEFINITION: ***Peak flu activity is characterized by an increase in confirmed cases of influenza in Maryland. Geographic spread of influenza in Maryland is either regional or widespread and ILI intensity is moderate or high.***

TIME PERIOD: ***Peak flu activity typically occurs during the winter; however, each flu season is different. Peak flu activity is occurring when greater than 15% of influenza tests from sentinel laboratories are positive for the virus.***

Tips for Maryland Residents

- Avoid direct contact with ill people whenever possible. Continue to practice hand hygiene by washing your hands often.
- Remain at home and avoid contact with other people if you have flu-like symptoms or do not feel well. Use proper cough and sneeze etiquette if you are sick.
- Know the warning signs that require urgent medical attention including high or prolonged fever, shortness of breath, dehydration, chest pain, and fainting.
- Stay informed by monitoring DHMH's influenza surveillance reporting website: http://phpa.dhmh.maryland.gov/influenza/fluwatch/SitePages/Home.aspx.

State and Local Health Department Actions

Epidemiological and Laboratory

- Monitor changes in viral characteristics, including antiviral resistance.
- Monitor adverse reactions to vaccine.
- Continue to investigate influenza outbreaks.
- Monitor geographic spread and intensity of influenza.
- Monitor information that could indicate a severe flu impact, such as influenza hospitalization rate, school absenteeism rate, and morbidity and mortality rate.
- Monitor vaccine coverage.

Communication and Public Information

- Continue to provide educational messages including vaccine promotion, disease characteristics, and steps to take if you get sick.
- Communicate disease severity and alerts and monitor news coverage.
- Guidance on avoiding hospital emergency departments unless illness is severe.
- Provide information regarding mitigating medications, if applicable.

Community Prevention and Mitigation

- Conduct a conference call with healthcare partners and health departments to provide guidance and assess the status of seasonal influenza in Maryland.
- Monitor the status of antiviral medications in the commercial supply chain on a weekly basis.
- Monitor statewide hospital bed availability through the Maryland Institute for Emergency Medical Services System (MIEMSS) and communicate with local EMS about any significant increases in patient transports with ILI as chief complaint.
- If necessary, activate MD Responds professional volunteers to provide support to local health departments' vaccination clinics.

Healthcare Systems and Providers Actions

- Use caution when performing aerosol-generating procedures and only perform these procedures on patients with confirmed or suspected influenza if they are medically necessary.
- Manage visitor access and movement within the facility, including altering visitor policies if necssary.
- Implement environmental infection control and ensure standard disinfection procedures are occurring in patient-care areas.
- Continue vaccinating patients and focus vaccination efforts on high risk, underserved, and healthcare worker populations.

High Impact and Pandemic Threat Indicators

- Laboratory suspected or confirmed test showing a novel strain of influenza
- Significantly higher severity in flu cases in comparison to previous years
- Emergence of antiviral medications resistance

SEVERE FLU IMPACT

Peak seasonal flu activity is characterized by an increase in the spread and/or intensity of influenza. Particularly severe seasons may cause a severe flu impact. A severe flu impact is characterized by flu activity that greatly affects health systems and the community.

State health officials regularly review a number of factors that might trigger a severe flu impact. The following are primary factors for determining a severe flu impact.

(1) **Factor 1: Hospitals experiencing reported surge in emergency departments or diminishing bed availability**
Established by: MIEMSS monitoring and Emergency Department Overload Mitigation Plan
Threshold: Hospitals within one region are on "yellow" alert status greater than 35% of the collective daily time for several days

(2) **Factor 2: Flu surveillance data suggest a number of hospitalizations out of proportion with previous flu seasons due to the influenza virus**
Established by: DHMH Influenza-associated Hospitalizations report
Threshold: Hospitalization rate higher than typical flu seasons

(3) **Factor 3: Increased virulence of circulating strains causing an increase in morbidity and mortality, especially in atypical populations**
Established by: DHMH Laboratory testing and Influenza-associated Hospitalizations and Deaths Reports
Threshold: Identified pandemic strain of influenza (such as 2009-2010 H1N1); increased morbidity in previously healthy, aged 18-24 and 25-49 individuals

(4) **Factor 4: Circulating strains of influenza are novel or do not match available seasonal vaccine and/or are resistant to antiviral medications**
Established by: CDC Morbidity and Mortality and Flu Surveillance Weekly Reports
Threshold: Seasonal vaccine significantly less than 50% effective

(5) **Factor 5: School absenteeism is significantly higher than typical levels**
Established by: DHMH ESSENCE
Threshold: 50% or more of Maryland local jurisdictions report greater than 15% absenteeism for three consecutive weekdays

The impact of seasonal influenza can be severe when it is both widespread geographically and high in intensity. The disease circulates throughout Maryland and can cause many residents to become ill and seek hospital treatment, increasing the number of patients in healthcare settings. Influenza simultaneously infects healthcare workers which reduces the workforce at these hospitals and community health centers. This dual impact might be severe and can greatly affect the community.

Additional Considerations for Mitigating a Severe Flu Impact

Non-pharmaceutical Intervention and Communications

- Conduct weekly assessment conference calls with healthcare partners and local health departments to provide situational awareness and initiate mitigation tactics.
- Increase the number of public press releases and information on seasonal flu and/or novel influenza or respiratory viruses.
- Operationalize portions of the State Pandemic Influenza Annex including recommendations regarding social distancing and travel restrictions as necessary.
- Review potential declarations under the Catastrophic Health Emergencies (CHE) Act.
- Consider enacting Pandemic Flu Attendance and Leave Policy and Advanced Sick Leave Policy.
- Review policies and procedures for potential school closures with the Maryland State Department of Education (MSDE) and local public school systems.
- Issue guidance and manage visitor access to patients in healthcare settings. Consider screening visitors for symptoms of acute respiratory illness before entering hospitals.
- Hospitals should consider designing and installing engineering controls to reduce exposures by shielding healthcare personnel and other patients from infected individuals.

Medical Countermeasures

- Encourage universal vaccination effort and increase the number of vaccine clinics.
- If necessary, allocate and distribute antiviral medications to local community partners for potential dispensing.
- Request medications from the CDC Strategic National Stockpile (SNS) if a shortage of antivirals or equipment is identified in the commercial supply chain or State stockpile.

VII. Late Flu Activity

DEFINITION: ***Late flu activity is characterized by decreasing levels of influenza in Maryland.***

TIME PERIOD: ***Late flu activity is occurring when less than 15% of influenza tests from sentinel laboratories are positive. Additionally, the predominant strain of circulating influenza virus typically shifts to Type B.***

Tips for Maryland Residents

- Continue to practice hand hygiene and cough etiquette.
- Stay home if sick with flu-like symptoms.
- Stay informed by monitoring DHMH's influenza surveillance reporting website: http://phpa.dhmh.maryland.gov/influenza/fluwatch/SitePages/Home.aspx.

State and Local Health Department Actions

Epidemiological and Laboratory

- Continue to investigate influenza outbreaks throughout Maryland.
- Continue to conduct surveillance for influenza, including MRITS, outpatient sentinel providers and laboratories, emergency departments, and hospitals.
- Publish epidemiological data and flu season summary at end of season.

Community Prevention and Mitigation

- Review and update Maryland Influenza Plan at end of season.

Healthcare Systems and Providers Actions

- Assess medications and personal protective equipment caches and refill stocks as necessary.
- Review and update seasonal influenza plans and medical surge plans.

High Impact and Pandemic Threat Indicators

- A sudden increase in reported cases of ILI late in flu season.

VIII. Conclusion

Influenza is a serious disease that affects many Maryland residents every year. The best way to prevent influenza is by being vaccinated. Vaccination will be most effective if you receive a flu shot or intranasal mist in the summer or fall. The Maryland Department of Health and Mental Hygiene has identified and published additional essential tips for Maryland residents to prevent and mitigate the spread of the flu. Additionally, this plan outlines the State's efforts in surveillance, communication, and community prevention and mitigation and guidance for healthcare systems and providers in order to dictate actions that reduce the effect the flu has on Maryland and its residents.

Appendix A: Local Health Department Contact Information

JURISDICTION	WEBSITE ADDRESS	PHONE NUMBER
Allegany	www.alleganyhealthdept.com	301-759-5000
Anne Arundel	www.aahealth.org/index.asp	410-222-7095
Baltimore City	www.baltimorehealth.org/	410-396-4398
Baltimore	www.baltimorecountymd.gov/Agencies/health/	410-887-2243
Calvert	www.calverthealth.org	410-535-5400
Caroline	www.carolinehd.org/	410-479-8030
Carroll	http://www.carrollhealthdepartment.dhmh.md.gov/	410-857-5000
Cecil	www.cecilcountyhealth.org	410-996-5550
Charles	www.charlescountyhealth.org/	301-609-6900
Dorchester	www.dorchesterhealth.org	410-228-3223
Frederick	www.frederickcountymd.gov/	301-600-1029
Garrett	www.garretthealth.org	301-334-7777
Harford	www.harfordcountyhealth.com	410-838-1500
Howard	www.hchealth.org	410-313-6300
Kent	www.kenthd.org	410-778-1350
Montgomery	www.montgomerycountymd.gov/hhstmpl.asp?url=/content/hhs/index.asp	240-777-3038
Prince George's	www.co.pg.md.us/government/agencyindex/health/index.asp	301-883-7879
Queen Anne's	www.qahealth.org/	410-758-0720
Saint Mary's	www.smchd.org	301-475-4330
Somerset	http://www.somersethd.org/	443-523-1700
Talbot	www.talbothealth.org/	410-819-5600
Washington	www.washhealth.org/	240-313-3200
Wicomico	www.wicomicohealth.org	410-749-1244
Worcester	www.worcesterhealth.org	410-632-1100

Appendix B: Summary of 2013-2014 Recommendations from the Advisory Committee on Immunization Practices (ACIP)[1]

2013-2014 Vaccine Recommendations

- Routine annual influenza vaccination of all persons aged 6 months and older continues to be recommended
- In general, health-care providers should begin offering vaccination soon after vaccine becomes available, and if possible, by October
- All children aged 6 months--8 years who are recommended for 2 doses should receive their first dose as soon as possible after vaccine becomes available; these children should receive the second dose ≥4 weeks later

Persons at Risk for Medical Complications Due to Influenza

- All children aged 6 through 59 months;
- All persons aged ≥50 years;
- Adults and children who have chronic pulmonary (including asthma) or cardiovascular (except isolated hypertension), renal, hepatic, neurological, hematologic, or metabolic disorders (including diabetes mellitus);
- Persons who have immunosuppression (including immunosuppression caused by medications or HIV infection);
- Women who are or will be pregnant during the influenza season;
- Children and adolescents (aged 6 months--18 years) who are receiving long-term aspirin therapy and who might be at risk for experiencing Reye's syndrome after influenza virus infection;
- Residents of nursing homes and other long-term care facilities;
- American Indians/Alaska Natives;
- Persons who are morbidly obese (BMI ≥40).

[1] Full summary can be found: http://www.cdc.gov/flu/professionals/acip/2013-summary-recommendations.htm