Mississippi State Department of Health

Mississippi Morbidity Report

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Influenza Vaccine Recommendations, 2012-2013 Season

Introduction: The 2012-2013 influenza season has begun and the Centers for Disease Control and Prevention (CDC) and the Advisory Committee on Immunization Practices (ACIP) have issued guidelines for the prevention and control of influenza with vaccines. What follows is an overview of the Mississippi State Department of Health (MSDH) influenza surveillance activities, a review of the 2011-2012 influenza season, an excerpt from ACIP's updated vaccine recommendations for the current 2012-2013 influenza season and a brief discussion of the new MSDH employee influenza vaccine policy.

Surveillance Activities: Each year MSDH monitors influenza activity in the state through the Influenza-like Illness (ILI) Sentinel Surveillance System. The sentinel system is comprised of providers throughout the state representing hospital emergency departments, urgent care and primary care clinics, and college and university student health centers. Each week during the influenza season, the providers report the number of non-trauma visits consistent with an ILI, defined as fever > 100ºF and cough and/or sore throat in the absence of another known cause. MSDH uses this information to estimate the magnitude and geographic distribution of the state's weekly influenza activity. ILI providers also submit samples for influenza PCR testing to the Mississippi Public Health Laboratory to monitor for the types of influenza causing illness. For the 2012-2013 season there are 44 providers enrolled in the ILI surveillance system, covering 36 counties.

2011-2012 Influenza Season: Influenza activity usually occurs from December through March in Mississippi, but influenza can be seen earlier or later. Peak activity typically occurs in February and March. In Mississippi, influenza activity for 2011-2012 gradually increased over the season to a peak in early March, when 5.5% of all non-trauma patients seen by sentinel providers had an illness consistent with ILI. Influenza activity gradually declined for the remainder of the season. The predominant influenza subtype for the 2011-2012 season was influenza A H3N2. There were no reported influenza-related pediatric deaths during the past season. Nationally, influenza activity peaked in mid-March at 2.4% of all non-trauma visits to sentinel providers consistent with an ILI. As in Mississippi, The predominant subtype for the U.S. season was influenza A H3N2. For 2011-2012, 26 laboratory-confirmed influenza associated pediatric deaths were reported in the U.S.

ACIP Influenza Vaccine Recommendations for the 2012-2013 Season: What follows is adapted from the CDC report **"Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP)—United States, 2012-2013 Influenza Season"** available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a3.htm. In 2010, ACIP first recommended annual influenza vaccination for all persons aged ≥6 months in the United States. This document describes the influenza strains included in the 2012-2013 influenza vaccine, provides guidance for the use of influenza vaccines during the 2012–13 season, including an updated vaccination schedule for children aged 6 months through 8 years and a description of available vaccine products and indications, and provides vaccination recommendations for persons with a history of egg allergy.

Vaccine Strains for the 2012–2013 Influenza Season: U.S. influenza vaccines for 2012–13 contain A/California/7/2009 (H1N1)-like, A/Victoria/361/2011 (H3N2)-like, and B/Wisconsin/1/2010-like (Yamagata lineage) antigens. The influenza A (H3N2) and B antigens differ from the respective 2010–11 and 2011–12 seasonal vaccine antigens. The influenza A (H1N1) vaccine virus strain is derived from an influenza A (H1N1)pdm09 (2009[H1N1]) virus and was included in the 2009(H1N1) monovalent pandemic vaccine as well as the 2010–11 and 2011–12 seasonal vaccines.

Recommendations for Vaccination: Routine annual influenza vaccination is recommended for all persons aged ≥6 months, though there are individuals at higher risk for influenza related complications (or in contact with individuals at higher risk) in whom vaccination is strongly encouraged. See the back flap of this report for a summary of influenza vaccination recommendations adapted from the "Prevention and Control of Influenza with Vaccines, Recommendations of the Advisory Committee on Immunizations Practices (ACIP), 2010" available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5908a1.htm

To permit time for production of protective antibody levels vaccination optimally should occur before onset of influenza activity in the community, and providers should offer vaccination as soon as vaccine is available. Vaccination should be offered throughout the influenza season (i.e., as long as influenza viruses are circulating in the community).

Vaccine Dose Considerations for Children Aged 6 Months Through 8 Years: Children aged 6 months through 8 years require 2 doses of influenza vaccine (administered a minimum of 4 weeks apart) during their first season of vaccination to optimize the immune response. Children who last received seasonal (trivalent) influenza vaccine before the 2010–11 season but did not receive a vaccine containing 2009 (H1N1) antigen (either seasonal vaccine since July 2010 or monovalent 2009[H1N1] vaccine) will not have received this antigen. These children are recommended to receive 2 doses this season, even if 2 doses of seasonal influenza vaccine were received before the 2010–11 season. For full guidance and an influenza vaccine dosing algorithm for children in the age group see the full report at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a3.htm

Available Vaccine Products and Indications: Multiple influenza vaccines are expected to be available during the 2012–13 season. All contain the same antigenic composition. In addition to the standard intramuscularly administered trivalent inactivated vaccine (TIV), there is also an intradermally administered TIV available for individuals 18-64 years of age, an alternative TIV high-dose vaccine preparation for persons aged ≥65 years, and the intranasally administered live-attenuated influenza vaccine (LAIV) recommended for healthy, nonpregnant persons aged 2 through 49 years.

Influenza Vaccination of Persons with a History of Egg Allergy: Severe allergic and anaphylactic reactions can occur in response to a number of influenza vaccine components, but such reactions are rare. All currently available influenza vaccines are prepared by means of inoculation of virus into chicken eggs. The use of influenza vaccines for persons with a history of egg allergy has been reviewed recently by ACIP. For the 2011–12 influenza season, ACIP recommended that persons with egg allergy who report only hives after egg exposure should receive TIV, with several additional safety measures, as described in this document. Recent examination of VAERS (vaccine adverse event reporting system) data indicated no disproportionate reporting of allergy or anaphylaxis after influenza vaccination during the 2011–12 season. For the 2012–13 influenza season, ACIP recommends the following (see full report for complete guidance):

- **A previous severe allergic reaction to influenza vaccine, regardless of the component suspected to be responsible for the reaction, is a contraindication to future receipt of the vaccine.**
- **Persons with a history of egg allergy who have experienced only hives after exposure to eggs should receive influenza vaccine, with the following additional measures:**

    - Because studies published to date involved use of TIV, TIV rather than LAIV should be used;
    - Vaccine should be administered by health-care provider who is familiar with the potential manifestations of egg allergy; and
    - Vaccine recipients should be observed for at least 30 minutes for signs of a reaction after administrations of each dose.

Healthcare Personnel Influenza Vaccination: In 2006, the ACIP and the Healthcare Infection Control Practices Advisory Committee (HICPAC) recommended that all Healthcare Personnel (HCP) be vaccinated annually against influenza. Vaccination of HCP can reduce morbidity and mortality from influenza and its potentially serious consequences among HCP, their family members, and their patients. In the 2011-2012 influenza season CDC conducted an internet survey to estimate the influenza vaccination coverage among HCP. Overall, 66.9% of HCP reported having had an influenza vaccination for the 2011-2012 season. This is compared to prior season's estimates of 63.5% for the 2010-2011 season and 63.4% for 2009-2010 season. In the 2011-2012 season survey, the vaccine coverage for HCP was 95.2% in hospitals that required influenza vaccination, compared to 68.2% in facilities that did not require influenza vaccination. See the full CDC report "Influenza Vaccination Coverage Among Health-Care Personnel—2011-2012 Influenza Season, United States" at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6138a1.htm?s_cid=mm6138a1_w .

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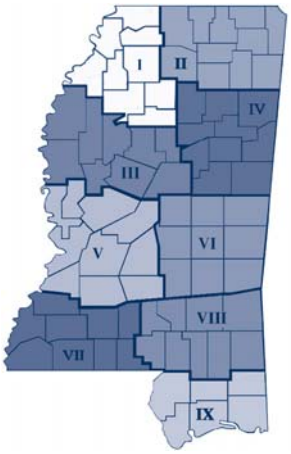

Mississippi
Provisional Reportable Disease Statistics
September 2012

		Public Health District									State Totals*			
		I	II	III	IV	V	VI	VII	VIII	IX	Sept 2012	Sept 2011	YTD 2012	YTD 2011
Sexually Transmitted Diseases	Primary & Secondary Syphilis	1	0	3	1	9	1	0	3	2	**20**	16	124	132
	Early Latent Syphilis	1	0	1	1	20	1	2	3	2	**31**	24	193	255
	Gonorrhea	48	48	87	47	190	48	22	40	62	**592**	570	5,136	4,590
	Chlamydia	190	186	230	103	396	128	74	139	179	**1,625**	2,086	17,626	16,730
	HIV Disease	4	2	1	1	19	4	1	3	3	**38**	38	415	481
Myco-bacterial Diseases	Pulmonary Tuberculosis (TB)	1	1	1	0	1	0	0	0	0	**4**	7	50	55
	Extrapulmonary TB	0	0	0	0	1	0	0	0	0	**1**	0	7	10
	Mycobacteria Other Than TB	0	1	1	2	9	3	3	3	1	**23**	38	226	252
Vaccine Preventable Diseases	Diphtheria	0	0	0	0	0	0	0	0	0	**0**	0	0	0
	Pertussis	0	1	0	0	0	1	0	0	1	**3**	4	65	30
	Tetanus	0	0	0	0	0	0	0	0	0	**0**	0	1	0
	Poliomyelitis	0	0	0	0	0	0	0	0	0	**0**	0	0	0
	Measles	0	0	0	0	0	0	0	0	0	**0**	0	0	0
	Mumps	0	0	0	0	0	0	0	0	0	**0**	0	1	3
	Hepatitis B (acute)	1	1	1	0	1	0	0	2	0	**6**	9	62	46
	Invasive *H. influenzae* disease	0	0	0	0	1	0	0	0	0	**1**	2	15	15
	Invasive Meningococcal disease	0	0	0	0	0	0	0	0	0	**0**	1	4	4
Enteric Diseases	Hepatitis A (acute)	0	0	0	0	0	0	0	0	0	**0**	1	4	7
	Salmonellosis	18	40	3	24	50	25	28	17	23	**228**	212	993	1041
	Shigellosis	1	2	1	2	32	0	3	0	0	**41**	31	214	137
	Campylobacteriosis	1	2	0	0	2	0	1	4	1	**11**	11	84	63
	E. coli O157:H7/shiga toxin-producing *E. coli* (STEC)/HUS	0	1	0	0	0	0	0	0	0	**1**	3	15	27
Zoonotic Diseases	Animal Rabies (bats)	0	0	0	0	0	0	0	0	0	**0**	1	1	2
	Lyme disease	0	0	0	0	0	0	0	0	0	**0**	0	1	4
	Rocky Mountain spotted fever	0	0	0	0	0	0	0	0	0	**0**	4	5	20
	West Nile virus	4	0	4	3	22	3	6	8	7	**57**	20	228	51

* Totals include reports from Department of Corrections and those not reported from a specific District.

MSDH Influenza Vaccination Mandate: In an effort to increase influenza vaccine coverage among HCP and to reduce the risk of influenza transmission to those we serve, the MSDH has instituted mandatory influenza vaccination for all MSDH employees for the upcoming 2012-2013 season. This policy applies to all contract, full time and part time employees, regardless of setting. Processes are in place for both medical and non-medical exemptions. Unvaccinated personnel will be required to wear a surgical mask in clinical settings during the period of peak influenza transmission as determined by the MSDH Office of Epidemiology.

Summary of Influenza Vaccination Recommendations

- **All persons aged ≥6 months should be vaccinated annually.**
- Emphasis is placed on individuals who are at higher risk for influenza-related complications, or those in contact with individuals at higher risk of influenza related complications, including but not limited to:
  - **Health-care personnel;**
  - **All woman who are or will be pregnant (in any trimester) during influenza season (inactivated vaccine only);**
  - Children aged 6 months—4 years (59 months);
  - Children aged 6 months-18 years who are receiving long-term aspirin therapy and who therefore might be at risk for developing Reye syndrome after influenza virus infection;
  - Adults aged ≥50 years;
  - Persons with chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus);
  - Persons who are immunosuppressed (including immunosuppression caused by medications or by human immunodeficiency virus);
  - Residents of nursing homes and other chronic-care facilities;
  - Household contacts and caregivers of children aged <5 years and adults aged ≥50 years, **with particular emphasis on vaccinating contacts of children <6 months**; and contacts or caregivers of individuals with medical conditions that put them at higher risk for severe complications from influenza.

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