Mississippi State Department of Health

Mississippi Morbidity Report

Volume 27, Number 10 October 2011

Review of the 2010-2011 Influenza Season and Overview of Current Recommendations for Influenza Vaccine

2010-2011 Influenza Season: The Mississippi State Department of Health (MSDH) monitors influenza activity in the state through a network of sentinel outpatient clinics, hospital emergency departments and student health centers throughout the state. Each week during the influenza season, the providers report the number of non-trauma visits consistent with an influenza-like illness (ILI), defined as fever >100°F and cough and/or sore throat. In Mississippi, influenza activity for the 2010-2011 season peaked in mid-December, with 12.25% of non-trauma visits to sentinel providers being for an ILI, then gradually declined the remainder of the season. Sentinel providers also submit samples for influenza PCR testing to the Mississippi Public Health Laboratory. The predominant subtype for the 2010-2011 season was influenza A (H3N2), followed closely by influenza B, which was the predominant type in the early part of the season. Influenza A (H1N1), the pandemic strain, accounted for only a few samples during the season. Mississippi reported no influenza-related pediatric deaths during the 2010-2011 season. Nationally, the season peaked during mid-February with an ILI rate of 4.6%. The predominant subtype for the U.S. season was influenza A (H3N2), though influenza B and influenza A (H1N1) were also detected. There were 105 laboratory confirmed influenza-associated pediatric deaths in the U.S. for the 2010-2011 season.

Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2011

What follows is adapted from Centers for Disease Control and Prevention (CDC) report outlining the updated recommendations from the Advisory Committee on Immunization Practices (ACIP) for the prevention and control of influenza with vaccines for the 2011-2012 influenza season. In 2010, the ACIP first recommended annual influenza vaccination for all persons aged ≥6 months in the United States. Vaccination of all persons aged ≥6 months continues to be recommended. Availability of a new Food and Drug Administration (FDA)-approved intradermally administered influenza vaccine formulation for adults aged 18 through 64 years is reported. For details not covered in this summary, please see the references.

Vaccine Strains for the 2011-12 Influenza Season: The 2011-12 U.S. seasonal influenza vaccine virus strains are identical to those contained in the 2010-11 vaccine. These include A/California/7/2009 (H1N1)-like, A/Perth/16/2009 (H3N2)-like, and B/Brisbane/60/2008-like antigens. The influenza A (H1N1) vaccine virus strain is derived from a 2009 pandemic influenza A (H1N1) virus.

Recommendations for Vaccination: Routine annual influenza vaccination is recommended for all persons aged ≥6 months. To permit time for production of protective antibody levels, vaccination should optimally occur before onset of influenza activity in the community, and providers should offer vaccination as soon as vaccine is available. Vaccination also should continue to be offered throughout the influenza season and annual vaccination is recommended for optimal protection against influenza.

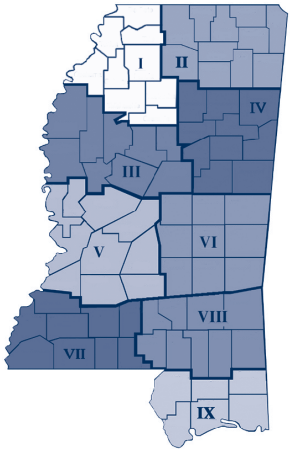
Normally, **children aged 6 months through 8 years** who received only 1 dose of influenza vaccine in their first year of vaccination required 2 doses the following season. However, because the 2011-12 vaccine strains are unchanged from the 2010-11 season, **children in this age group who received at least 1 dose of the 2010-11 seasonal vaccine will require only 1 dose of the 2011-12 vaccine**. **Children in this age group who did <u>not</u> receive at least 1 dose of the 2010-11 seasonal influenza vaccine**, or for whom it is not certain whether the 2010-11 seasonal vaccine was received, **should receive 2 doses of the 2011-12 seasonal influenza vaccine** (Figure). Recommendations regarding the number of doses for this age group might change for the 2012-13 season if vaccine antigens change.

Available Vaccine Products and Indications: Multiple influenza vaccines are expected to be available during the 2011-12 season. All contain the same antigenic composition. In addition to the standard dose intramuscular vaccines, three other vaccine preparations are available this season: a new intradermally administered trivalent influenza vaccine (TIV) preparation licensed in May 2011 (for individuals aged 18 through 64 years), a high-dose vaccine preparation as an alternative TIV (for persons aged ≥65 years), and intranasally administered live attenuated influenza vaccine (for healthy, non-pregnant persons aged 2 through 49 years). No preference is indicated for or against any of these preparations for their respective indicated population. Package inserts should be consulted for information regarding additional components of various vaccine formulations and for specific age groups and indications/contraindications for each vaccine.

Recommendations Regarding Persons with Egg Allergy: All currently available influenza vaccines are prepared by inoculation of virus into chicken eggs. Hypersensitivity to eggs has been listed as a contraindication to receipt of influenza vaccine on most package inserts. However, several recent studies have documented safe receipt of TIV in persons with egg allergy, and **recent revisions of some TIV package inserts note that only a severe allergic reaction (e.g., anaphylaxis) to egg protein is a contraindication.** In general, these studies include relatively fewer persons reporting a history of anaphylactic reaction to egg, compared with less severe reactions. Several documents providing guidance on use of influenza vaccine in persons with egg allergy have been published recently.

Each of the following recommendations applies when considering influenza vaccination of persons who have or report a history of egg allergy. (For more detail and references see the full CDC report.[1])

- **A previous severe allergic reaction to influenza vaccine, regardless of the component suspected to be responsible for the reaction, is a contraindication to receipt of influenza vaccine**.
- Persons who have experienced only hives following exposure to egg 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 a health-care provider who is familiar with the potential manifestations of egg allergy.
    - Vaccine recipients should be observed for at least 30 minutes for signs of a reaction following administration of each vaccine dose.
- Other measures, such as dividing and administering the vaccine by a two-step approach and skin testing with vaccine, are not necessary.
- Persons who report having had reactions to egg involving angioedema, respiratory distress, lightheadedness, or recurrent emesis, or persons who required epinephrine or other emergency medical intervention, particularly those that occurred immediately or within minutes to hours after egg exposure are more likely to have a serious systemic or anaphylactic reaction upon reexposure to egg proteins. Before receipt of vaccine, such persons should be referred to a physician with expertise in the management of allergic conditions for further risk assessment.
- All vaccines should be administered in settings in which personnel and equipment for rapid recognition and treatment of anaphylaxis are available.
- Some persons who report allergy to egg might not be egg allergic. Those who are able to eat lightly cooked egg (e.g., scrambled eggs) without reaction are unlikely to be allergic. Conversely, egg-allergic persons might tolerate egg in baked products (e.g., bread or cake); tolerance to egg-containing foods does not exclude the possibility of egg allergy. Egg allergy can be confirmed by a consistent medical history of adverse reactions to eggs and egg-containing foods, plus skin and/or blood testing for immunoglobulin E antibodies to egg proteins.



Mississippi
Provisional Reportable Disease Statistics
September 2011

		Public Health District									State Totals*			
		I	II	III	IV	V	VI	VII	VIII	IX	Sept 2011	Sept 2010	YTD 2011	YTD 2010
Sexually Transmitted Diseases	**Primary & Secondary Syphilis**	1	1	0	0	8	1	0	0	5	**16**	12	132	160
	Total Early Syphilis	3	1	2	0	18	3	2	2	9	**40**	35	387	432
	Gonorrhea	66	47	53	44	168	49	16	53	74	**570**	524	4,590	4,600
	Chlamydia	214	213	206	235	510	212	103	164	229	**2,086**	1,777	16,730	16,337
	HIV Disease	0	4	6	1	14	4	1	1	7	**38**	48	481	394
Myco-bacterial Diseases	**Pulmonary Tuberculosis (TB)**	0	1	3	0	5	0	0	0	0	**7**	9	55	72
	Extrapulmonary TB	0	0	0	0	0	0	0	0	0	**0**	2	10	8
	Mycobacteria Other Than TB	5	4	6	1	12	3	2	2	3	**38**	30	252	305
Vaccine Preventable Diseases	**Diphtheria**	0	0	0	0	0	0	0	0	0	**0**	0	0	0
	Pertussis	0	0	0	0	0	0	0	0	0	**0**	7	24	59
	Tetanus	0	0	0	0	0	0	0	0	0	**0**	0	0	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	3	0
	Hepatitis B (acute)	0	0	0	0	1	0	1	0	1	**3**	4	35	27
	Invasive *H. influenzae* b disease	0	0	0	0	0	0	0	0	0	**0**	0	3	0
	Invasive Meningococcal disease	0	0	0	0	0	0	0	0	0	**0**	0	3	3
Enteric Diseases	**Hepatitis A (acute)**	0	0	0	0	0	0	1	0	0	**1**	0	7	2
	Salmonellosis	33	49	5	27	42	9	15	12	12	**205**	227	1039	917
	Shigellosis	1	1	0	1	19	2	0	3	3	**30**	5	137	40
	Campylobacteriosis	2	1	1	1	3	0	0	1	1	**10**	12	60	105
	E. coli O157:H7/HUS	0	0	0	0	1	0	0	0	0	**1**	1	8	10
Zoonotic Diseases	**Animal Rabies (bats)**	0	0	0	0	0	0	0	0	0	**0**	0	1	0
	Lyme disease	0	0	0	0	0	0	0	0	0	**0**	0	3	0
	Rocky Mountain spotted fever	0	0	0	0	0	0	0	0	0	**0**	0	12	19
	West Nile virus	0	0	3	1	9	1	0	2	0	**16**	2	47	7

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

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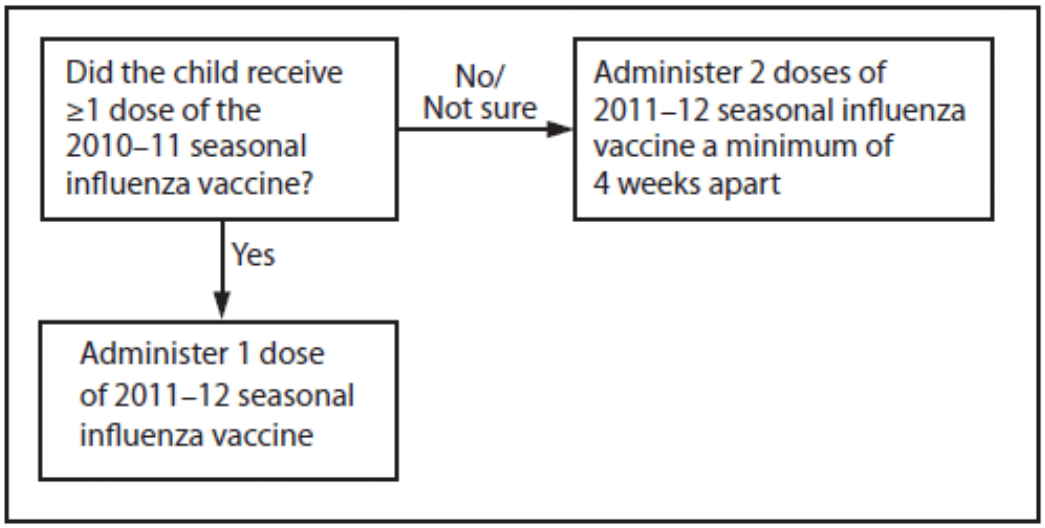
FIGURE 1. Influenza vaccine dosing algorithm for children aged 6 months through 8 years — Advisory Committee on Immunization Practices (ACIP), 2011-12 influenza season



References:

- CDC. FluView, 2010-2011 Influenza Season Week 34 ending August 27, 2011. http://www.cdc.gov/flu/weekly/weeklyarchives2010-2011/weekly34.htm
- CDC. Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2011MMWR 60(33); 1128-1132; August 26, 2011. http://www.cdc.gov/mmwr/PDF/wk/mm6033.pdf
- CDC. Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010. MMWR 59(rr08); 1-62; August 6, 2010. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5908a1.htm