

<p>2015 REGIONAL IMMUNIZATION WORKSHOP</p>	<p>W E L C O M E</p>
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<p>Susan Reeser RN, BSN Montana Immunization Program</p> <p>INFLUENZA VACCINATION: ONE SEASON AT A TIME</p>	 <p>MONTANA DPHHS Healthy People. Healthy Communities. Partners in Health Advancement.</p>
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OVERVIEW

- **The Influenza Season Cycle**
- **Influenza Vaccination**
- **Current Vaccine Recommendations**
- **The Vaccine**
- **Questions & Answers**
- **Summary**

THE INFLUENZA SEASON CYCLE



THE CHANGING SEASONS OF INFLUENZA

Flu Season

Change

- Brace for change
 - or
- Embrace change
 - because
- The only thing that stays the same is change

INFLUENZA SEASONAL TABLE

Spring	Summer	Autumn	Winter
<ul style="list-style-type: none"> -Continue to vaccinate -Meet with vaccine partners to plan strategies for next influenza season 	<ul style="list-style-type: none"> -June 30 all flu vaccine expires -July, private new season vaccine begins to arrive -Vaccinate -Order VFC flu vaccine -September VFC vaccine shipments begin 	<ul style="list-style-type: none"> -Vaccine shipments both VFC and private arrive at clinics -IZ Program loads NDC codes into imMTrax inventory -Vaccinate 	<ul style="list-style-type: none"> -Continue to vaccinate -Replace LAIV as needed -Pre-book your private vaccine -VFC pre-books flu vaccine for next season

<h1>INFLUENZA VACCINATION</h1>	<p>What Who Why When Where</p>
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<h2>INFLUENZA</h2>
<ul style="list-style-type: none">■ Flu and the common cold are both respiratory illnesses■ Similar symptoms, can be difficult to tell apart■ Colds are usually milder than flu■ Flu can result in serious problems<ul style="list-style-type: none">▪ Pneumonia▪ Bacterial infections▪ Hospitalizations■ Adults <u>rarely</u> get nausea, vomiting abdominal cramps with influenza

INFLUENZA

- Influenza is the most frequent cause of death from a vaccine-preventable disease in the United States
- Annual average influenza-associated deaths 23,607
- Seasonal influenza is responsible for more than 200,000 hospitalizations per year

WHEN TO VACCINATE

- CDC recommends that people get vaccinated against flu soon after vaccine becomes available, preferably by October.
 - Scheduling large clinics
- Continue to vaccinate throughout the flu season

WHO TO VACCINATE

Routine annual influenza vaccination recommendation

- all persons aged ≥ 6 months who do not have contraindications

PEOPLE AT HIGH RISK FOR DEVELOPING FLU-RELATED FLU COMPLICATIONS

- Children younger than 5 but especially children younger than 2 years old
- Adults 65 years of age and older
- Pregnant women
- Residents of long-term care facilities
- American Indians and Alaskan Natives

RISK: PEOPLE WHO HAVE MEDICAL CONDITIONS

- Asthma
- Chronic lung disease
- Heart disease
- Blood disorders
- Endocrine disorders (such as diabetes)
- Kidney disorders
- Liver disease
- Metabolic disorders

RISK (CONTINUED)

- Neurological and neurodevelopmental conditions
- Weakened immune system (HIV or AIDS, or cancer)
- People younger than 19 years of age who are receiving long term aspirin therapy
- People who are morbidly obese (BMI of 40 or greater)

WHERE ARE PEOPLE GETTING VACCINATED?

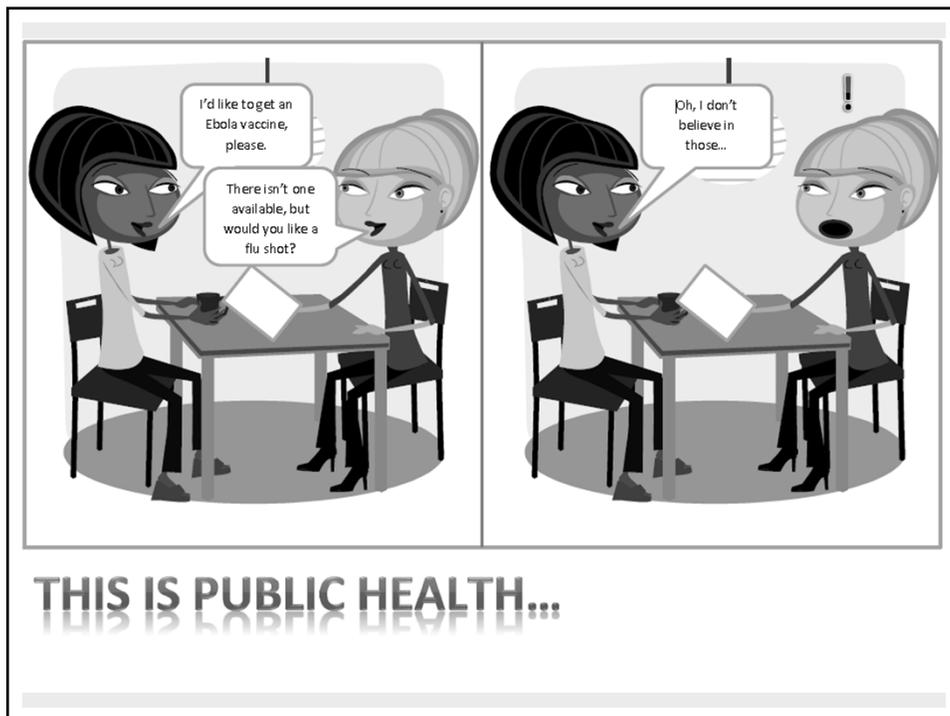
- Healthcare providers
- Public health
- Pharmacies
- Specialty clinics
 - Worksites
 - School located sites
 - Community centers
 - Other

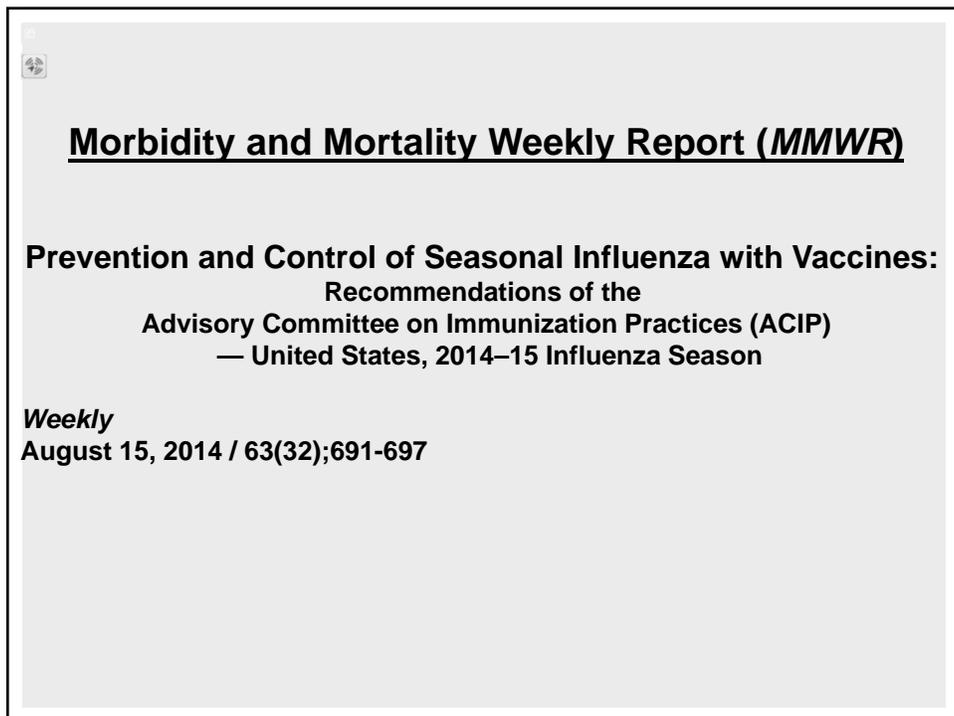
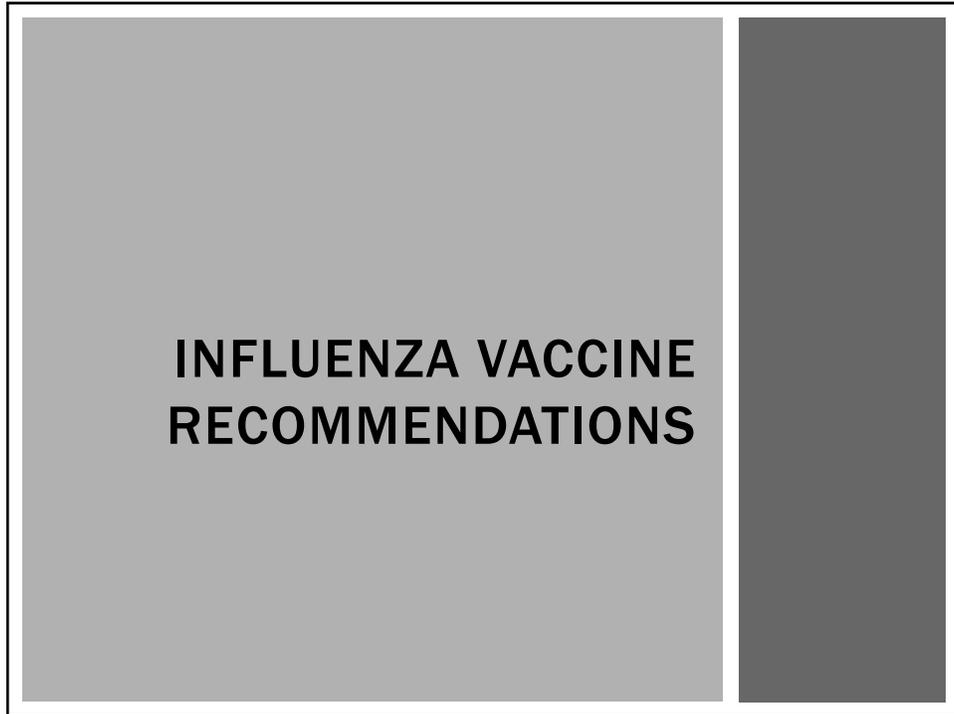
VACCINE PARTNERS

- With recommendations for vaccination for everyone 6 months of age and older...vaccine partners are needed.
- Flu-prevention vaccine partners
 - Host a flu vaccination clinic at their worksite
 - Promote vaccination in the community
 - Toolkit available

WHO, WHAT, WHY, WHERE, WHEN...

- Everyone older than 6 months without contraindications
- Educate patients on what the flu is (or is not)
- Influenza can be serious, especially for high risk individuals
- Vaccine partners are needed to get the population vaccinated
- Vaccinate as soon as you have vaccine





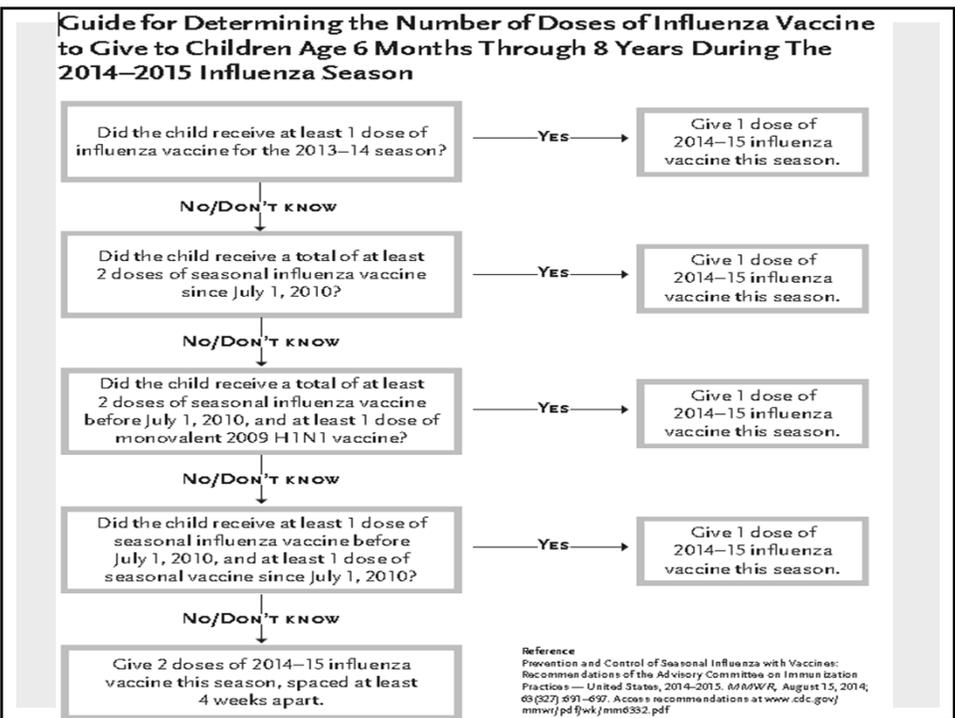
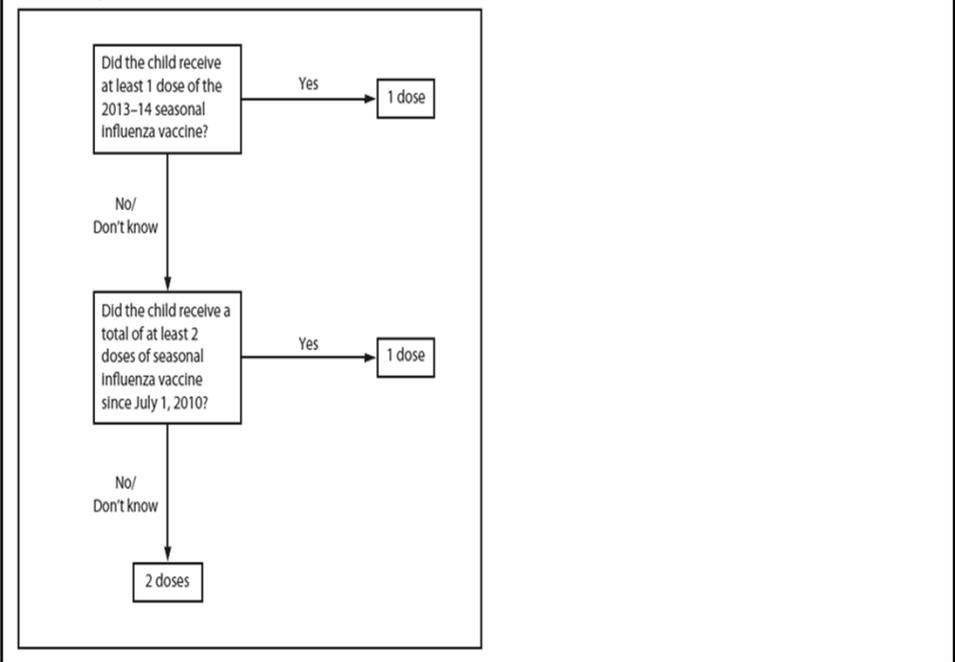
ANNUAL MMWR-SEASONAL INFLUENZA

- **Updates the recommendations from the last year**
- **Antigenic composition of U.S. seasonal influenza vaccines**
- **Groups recommended for vaccination and timing**
- **Available products and indications**
- **And more...**

CHILDREN AND 2ND DOSE OF VACCINE

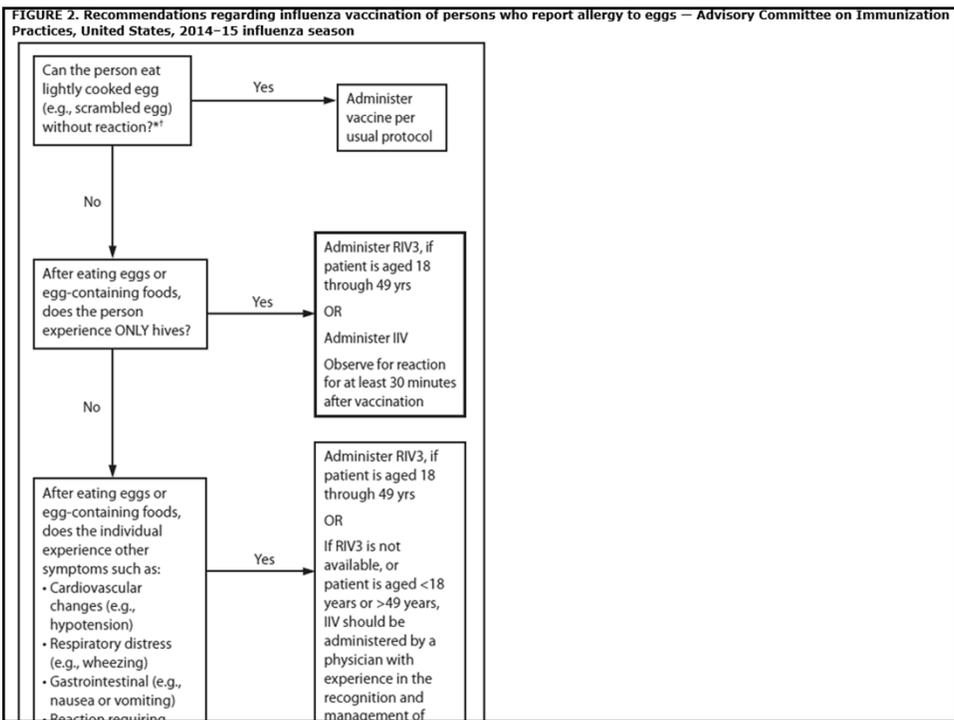
- **Children age 6 months - 8 years should received a second dose of flu vaccine 4 or more weeks after the 1st dose if they...**
 1. **Are receiving influenza vaccine for the first time**
 2. **Did not get a total of at least 2 doses of seasonal influenza vaccine since July 1, 2010**

FIGURE 1. Influenza vaccine dosing algorithm for children aged 6 months through 8 years – Advisory Committee on Immunization Practices, United States, 2014–15 influenza season*



RECOMMENDATIONS

■ **Influenza vaccination of persons who report allergy to eggs**



Influenza Vaccination of People with a History of Egg Allergy

- People with a history of egg allergy who have experienced only hives after exposure to egg should receive influenza vaccine. Because relatively few data are available for use of LAIV in this setting, inactivated influenza vaccine (IIV) or recombinant influenza vaccine (RIV) should be used. RIV is egg-free and may be used for people age 18 through 49 years who have no other contraindications. However, IIV (egg- or cell-culture based) also may be used, with the following additional safety measures (see figure in column to right)
 - a) Vaccine should be administered by a healthcare provider who is familiar with the potential manifestations of egg allergy; and
 - b) Vaccine recipients should be observed for at least 30 minutes for signs of a reaction after administration of each vaccine dose.
- People who report having had reactions to egg involving such symptoms as angioedema, respiratory distress, lightheadedness, or recurrent emesis; or who required epinephrine or another emergency medical intervention, may receive RIV, if they are age 18 through 49 years and there are no other contraindications. If RIV is not available or the recipient is not within the indicated age range, IIV should be administered by a physician with experience in the recognition and management of severe allergic conditions (see figure in column to right).
- All vaccines should be administered in settings in which personnel and equipment for rapid recognition and treatment of anaphylaxis are available. ACIP recommends that all vaccination providers should be familiar with the office emergency plan.²
- People who are able to eat lightly cooked egg (e.g., scrambled egg) without reaction are unlikely to be allergic. 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.³ 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 directed against egg proteins.
- For people who have no known history of exposure to egg, but who are suspected of being egg-allergic on the basis of previously performed allergy testing, consultation with a physician with expertise in the management of allergic conditions should be obtained before vaccination (see figure in column to right). Alternatively, RIV may be administered if the recipient is age 18 through 49 years.
- 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.

Recommendations regarding influenza vaccination of persons who report allergy to eggs: ACIP, United States, 2014–15 influenza season.

Can the person eat lightly cooked egg (e.g., scrambled egg) without reaction?^a

YES → Administer vaccine per usual protocol.

NO ↓

After eating eggs or egg-containing foods, does the person experience ONLY hives?^b

YES → Administer RIV (if patient is age 18 through 49 years); or administer IIV to any patient for whom IIV is indicated and observe for reaction for at least 30 minutes after vaccination.

NO ↓

After eating eggs or egg-containing foods, does the person experience other symptoms such as:

- Cardiovascular changes (e.g., hypotension)?
- Respiratory distress (e.g., wheezing)?
- Gastrointestinal symptoms (e.g., nausea/vomiting)?
- Reaction requiring epinephrine?
- Reaction requiring emergency medical attention?

YES → Administer RIV (if patient is age 18 through 49 years) or, if RIV is not available, or if patient is younger than age 18 years or older than age 49 years, IIV should be administered by a physician with experience in the recognition and management of severe allergic conditions. Observe for reaction for at least 30 minutes after vaccination.

^a People with egg allergy might tolerate egg in baked products (e.g., bread or cake). Tolerance to egg-containing foods does not exclude the possibility of egg allergy. For people who have no known history of exposure to egg, but who are suspected of being egg-allergic on the basis of previously performed allergy testing, consultation with a physician with expertise in the management of allergic conditions should be obtained prior to vaccination. Alternatively, RIV may be administered if the recipient is age 18 through 49 years.

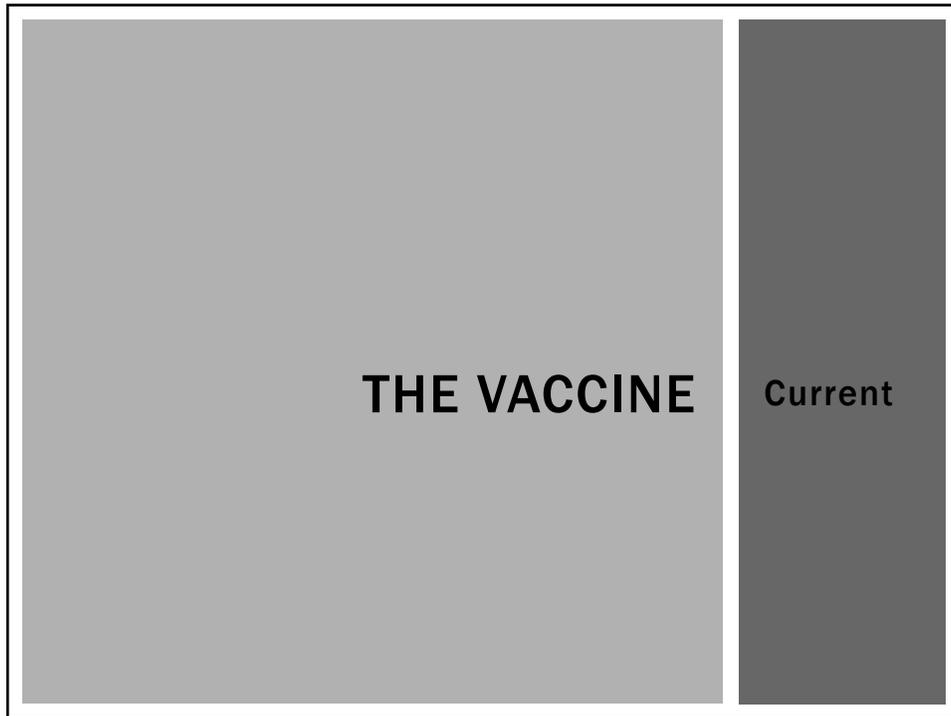
REFERENCES

1. Katz JM, Greenhawt M, Li JT, Hicks RA, Fendley DL, Bousheg-Masouh, et al. Adverse reactions to vaccines: practice parameter 2012 update. [Clin Allergy 2012; 44(12):25-42].
2. CDC. General immunization information system: immunization of the ACIP. MMWR 2011; 60(No. 33-2).
3. Eberhart-Keener M, Buehler M, Linn S, Warner O. Recommendations for the administration of influenza vaccine to children with egg allergy. BMJ 2009; 339:1360.

Adapted from CDC. "Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP)."

■ Job Aids Available

- Immunization Action Coalition
 - www.immunize.org
- Children-number of doses
 - <http://www.immunize.org/catg.d/p3093.pdf>
- Egg allergy
 - <http://www.immunize.org/catg.d/p3094.pdf>



THE VACCINE

- All of the 2014-2015 influenza vaccine is made to protect against the following three viruses:
 - A/California/7/2009 (H1N1)pdm09-like virus
 - A/Texas/50/2012 (H3N2)-like virus
 - B/Massachusetts/2/2012-like virus
- Some of the 2014-2015 flu vaccine also protects against an additional B virus (B/Brisbane/60/2008-like virus).

TRIVALENT VACCINE (IIV3)

- Standard-dose trivalent
- Shots manufactured using virus grown in eggs
- Different manufacturers vaccines are approved for people of different ages, but there are flu shots that are approved for use in people as young as 6 months of age and up.

IIV3

Intradermal trivalent

- Shot which uses a much smaller needle than the regular flu shot
- Injected into the skin (not the muscle)
- Smaller volume and less antigen (40%)
- It is approved for people 18 through 64 years of age.

IIV3

High-dose trivalent

- Shot approved for people 65 and older
- Contains 4x the amount of antigen of other flu vaccines

CCIIV3

Trivalent shot containing virus grown in cell culture

- Approved for people 18 and older
- Grown in animal cells instead of hen's eggs
- Faster start up of vaccine manufacturing process (esp. in the event of a pandemic)

RIV3

Recombinant trivalent shot that is egg-free

- Approved for people 18 through 49 years of age
- Does not use influenza virus or chicken eggs in the manufacturing process
- Suitable for vaccinating people with egg allergies
- Faster manufacturing process
- Shorter shelf-life (6 months from production date)

QUADRIVALENT (IIV4)

Quadrivalent flu shot

Quadrivalent nasal spray vaccine (LAIV)

- approved for people 2 through 49 years of age

LAIV SHOULD NOT BE USED IN THE FOLLOWING POPULATIONS:

- Persons aged <2 years or >49 years;
- Those with contraindications listed in the package insert
- Pregnant women
- Immunosuppressed persons
- Persons with a history of egg allergy
- Children aged 2 through 4 years who have asthma or who have had a wheezing ...
- Persons who have taken influenza antiviral medications within the previous 48 hours

LAIV WARNINGS AND PRECAUTIONS

- Indicates that persons of any age with asthma might be at increased risk for wheezing after administration of LAIV
- Persons who care for severely immunosuppressed persons who require a protective environment should not receive LAIV, or should avoid contact with such persons for 7 days after receipt, given the theoretical risk for transmission of the live attenuated vaccine virus.

SCREENING QUESTIONNAIRES

Help is available to screen your patients

Patient name: _____ Date of birth: ____/____/____
(mo.) (day) (yr.)

**Screening Checklist for Contraindications to
Inactivated Injectable Influenza Vaccination**

For patients (both children and adults) to be vaccinated: The following questions will help us determine if there is any reason we should not give you or your child inactivated injectable influenza vaccination today. If you answer "yes" to any question, it does not necessarily mean you (or your child) should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it.

	Yes	No	Don't Know
1. Is the person to be vaccinated sick today?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the person to be vaccinated have an allergy to eggs or to a component of the vaccine?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Has the person to be vaccinated ever had a serious reaction to influenza vaccine in the past?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Has the person to be vaccinated ever had Guillain-Barré syndrome?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Form completed by: _____ Date: _____

Form reviewed by: _____ Date: _____

Information for Health Professionals about the Screening Checklist for Contraindications to Inactivated Injectable Influenza Vaccination

Are you interested in knowing why we included a certain question on the screening checklist? If so, read the information below. If you want to find out even more, consult the sources listed at the bottom of this page.

1. Is the person to be vaccinated sick today?

There is no evidence that acute illness reduces vaccine efficacy or increases vaccine adverse events. People with an acute febrile illness usually should not be vaccinated until their symptoms have improved. Minor illnesses with or without fever do not contraindicate use of influenza vaccine. Do not withhold vaccination if a person is taking antibiotics.

2. Does the person to be vaccinated have an allergy to eggs or to a component of the vaccine?

Allergic reactions to any vaccine component can occur. The majority of reactions probably are caused by residual egg protein. Although most current influenza vaccines contain only a limited quantity of egg protein, this protein can induce immediate allergic reactions among people who have severe egg allergy.

An egg-free recombinant hemagglutinin vaccine (RIV) may be used in people age 18 through 49 years with egg allergy of any severity who have no other contraindications. If RIV is not available, or if the person does not meet the age criteria for RIV and has experienced a serious systemic or anaphylactic reaction (e.g., hives, swelling of the lips or tongue, acute respiratory distress, or collapse) after eating eggs, that person should have IIV administered by a physician with experience in the recognition and management of severe allergic conditions.

Some people who report allergy to egg might not be egg-allergic. If a person can eat lightly cooked eggs (e.g., scrambled eggs), they are unlikely to have an egg allergy. However, people who can tolerate egg in baked products (e.g., cake) might still have an egg allergy. If the person develops hives only after

people. Check the package inserts at www.immunize.org/packaginserts for information on which vaccines are affected, or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/latex-table.pdf.

3. Has the person to be vaccinated ever had a serious reaction to influenza vaccine in the past?

Patients reporting a serious reaction to a previous dose of inactivated influenza vaccine should be asked to describe their symptoms. Immediate—presumably allergic—reactions are usually a contraindication to further vaccination against influenza.

Fever, malaise, myalgia, and other systemic symptoms most often affect people who are first-time vaccinees. These mild-to-moderate local reactions are not a contraindication to future vaccination. Also, red eyes or mild upper facial swelling following vaccination with inactivated injectable influenza vaccine is most likely a coincidental event and not related to the vaccine; these people can receive injectable vaccine without further evaluation.

4. Has the person to be vaccinated ever had Guillain-Barré syndrome?

It is prudent to avoid vaccinating people who are not at high risk for severe influenza complications (see source 3) but who are known to have developed Guillain-Barré syndrome (GBS) within 6 weeks after receiving a previous influenza vaccination. As an alternative, physicians might consider using influenza antiviral chemoprophylaxis for these people. Although data are limited, the established benefits of influenza vaccination for the

Patient name: _____ Date of birth: ____/____/____
(mo.) (day) (yr.)

Screening Checklist for Contraindications to Live Attenuated Intranasal Influenza Vaccination

For use with people age 2 through 49 years: The following questions will help us determine if there is any reason we should not give you or your child live attenuated intranasal influenza vaccine (FluMist) today. If you answer "yes" to any question, it does not necessarily mean you (or your child) should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it.

	Yes	No	Don't Know
1. Is the person to be vaccinated sick today?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the person to be vaccinated have an allergy to eggs or to a component of the influenza vaccine?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Has the person to be vaccinated ever had a serious reaction to intranasal influenza vaccine (FluMist) in the past?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is the person to be vaccinated younger than age 2 years or older than age 49 years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Does the person to be vaccinated have a long-term health problem with heart disease, lung disease, kidney disease, neurologic or neuromuscular disease, liver disease, metabolic disease (e.g., diabetes), or anemia or another blood disorder?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. If the person to be vaccinated is a child age 2 through 4 years, in the past 12 months, has a healthcare provider told you the child had wheezing or asthma?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Does the person to be vaccinated have cancer, leukemia, HIV/AIDS, or any other immune system problem; or, in the past 3 months, have they taken medications that weaken the immune system, such as cortisone, prednisone, other steroids, or anticancer drugs; or have they had radiation treatments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Is the person to be vaccinated receiving antiviral medications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Information for Health Professionals about the Screening Checklist for Contraindications to Live Attenuated Intranasal Influenza Vaccination

Are you interested in knowing why we included a certain question on the screening checklist? If so, read the information below. If you want to find out even more, consult the sources listed at the bottom of this page.

1. Is the person to be vaccinated sick today?

There is no evidence that acute illness reduces vaccine efficacy or increases vaccine adverse events. People with an acute febrile illness usually should not be vaccinated until their symptoms have improved. Minor illnesses with or without fever do not contraindicate use of influenza vaccine. Do not withhold vaccination if a person is taking antibiotics.

2. Does the person to be vaccinated have an allergy to eggs or to a component of the influenza vaccine?

A history of anaphylactic or non-anaphylactic reaction—such as hives, wheezing, or difficulty breathing, or circulatory collapse or shock (not fainting)—after eating eggs or receiving any component of the intranasal live attenuated influenza vaccine (LAIV, tradename FluMist) usually means no further doses. An egg-free recombinant hemagglutinin vaccine (RIV) may be used in people age 18 through 49 years with egg allergy of any severity who have no other contraindications. People with egg allergies who do not meet the age criteria for RIV can usually be vaccinated with inactivated influenza vaccine (IIV); consult ACIP recommendations (see source 3). For a complete list of vaccine components (i.e., excipients and culture media) used in the production of the vaccine, check the package insert (at www.immunize.org/packageinserts/) or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/b/excipient-table-2.pdf.

3. Has the person to be vaccinated ever had a serious reaction to intranasal influenza vaccine (FluMist) in the past?

Patients reporting a serious reaction to a previous dose of LAIV should be asked to describe their symptoms. Immediate—presumably allergic—reactions are usually a contraindication to further vaccination with LAIV.

4. Is the person to be vaccinated younger than age 2 years or older than age 49 years?

LAIV is not licensed for use in people younger than age 2 years or older than age 49 years.

5. Does the person to be vaccinated have a long-term health problem with heart disease, lung disease, kidney disease, neurologic or neuromuscular disease, liver disease, metabolic

8. Is the person to be vaccinated receiving antiviral medications?

Receipt of certain influenza antivirals (e.g., amantadine, rimantadine, zanamivir, oseltamivir) could reduce LAIV vaccine efficacy; therefore, providers should defer vaccination with LAIV in people who took these antivirals within the previous 48 hours and to advise avoiding use of these antivirals for 14 days after vaccination, if feasible.

9. Is the child or teen to be vaccinated receiving aspirin therapy or aspirin-containing therapy?

Because of the theoretical risk of Reye's syndrome, children age 2 through 17 years on aspirin therapy should not be given LAIV. Instead they should be vaccinated with the inactivated injectable influenza vaccine.

10. Is the person to be vaccinated pregnant or could she become pregnant within the next month?

Pregnant women or women planning to become pregnant within a month should not be given LAIV. All pregnant women should, however, be vaccinated with the inactivated injectable influenza vaccine.

11. Has the person to be vaccinated ever had Guillain-Barré syndrome?

It is prudent to avoid vaccinating people who are not at high risk for severe influenza complications but who are known to have developed Guillain-Barré syndrome (GBS) within 6 weeks after receiving a previous influenza vaccination. As an alternative, physicians might consider using influenza antiviral chemoprophylaxis for these people. Although data are limited, the established benefits of influenza vaccination for the majority of people who have a history of GBS, and who are at high risk for severe complications from influenza, justify yearly vaccination.

12. Does the person to be vaccinated live with or expect to have close contact with a person whose immune system is severely compromised and who must be in protective isolation (e.g., an isolation room of a bone marrow transplant unit)?

Inactivated injectable influenza vaccine is preferred for people who anticipate close contact with a severely immunosuppressed person during periods in which the immunosuppressed person requires care in protective isolation (e.g.,

■ Job Aids Available

■ Immunization Action Coalition

■ www.immunize.org

■ Handouts for Patients and Staff

■ Screening questionnaires (influenza)

- <http://www.immunize.org/catg.d/p4066.pdf>
- <http://www.immunize.org/catg.d/p4067.pdf>

TABLE OF APPROVED VACCINES FOR THE U.S. 2014-2015 SEASON

Influenza Vaccine Products for the 2014–2015 Influenza Season

Manufacturer	Trade Name (vaccine abbreviation) ¹	How Supplied	Mercury Content (µg Hg/0.5mL)	Age Group	Product Code	
bioCSL, Inc.	Afluria (HIV3)	0.5 mL (single-dose syringe)	0	9 years & older ^{2,3}	90656	
		5.0 mL (multi-dose vial)	24.3		90658 • Q2035 (Medicare)	
GlaxoSmithKline	Fluarix (HIV3)	0.5 mL (single-dose syringe)	0	3 years & older	90656	
		Fluarix (HIV4)	0.5 mL (single-dose syringe)		0	3 years & older
ID Biomedical Corp. of Quebec, a subsidiary of GlaxoSmithKline	FluLaval (HIV3)	0.5 mL (single-dose syringe)	0	3 years & older	90656	
		5.0 mL (multi-dose vial)	<25		3 years & older	90658 • Q2036 (Medicare)
	FluLaval (HIV4)	0.5 mL (single-dose syringe)	0	3 years & older	90686	
		5.0 mL (multi-dose vial)	<25		3 years & older	90688
MedImmune	FluMist (LAIV4)	0.2 mL (single-use nasal spray)	0	2 through 49 years	90672	
Novartis Vaccines and Diagnostics, Inc.	Fluvirin (HIV3)	0.5 mL (single-dose syringe)	≤1	4 years & older	90656	
		5.0 mL (multi-dose vial)	25		4 years & older	90658 • Q2037 (Medicare)
	Flucelvax (cdHIV3)	0.5 mL (single-dose syringe)	0	18 years & older	90661	
Protein Sciences Corp.	Flublok (RIV3)	0.5 mL (single-dose vial)	0	18 through 49 years	90673	
		0.5 mL (single-dose syringe)	0		3 years & older	90656
Sanofi Pasteur, Inc.	Fluzone (HIV3)	5.0 mL (multi-dose vial)	25	6 through 35 months	90657	
		5.0 mL (multi-dose vial)	25	3 years & older	90658 • Q2038 (Medicare)	
		0.25 mL (single-dose syringe)	0	6 through 35 months	90685	
	Fluzone (HIV4)	0.5 mL (single-dose syringe)	0	3 years & older	90686	
		0.5 mL (single-dose vial)	0		3 years & older	90686
		5.0 mL (multi-dose vial)	25		6 through 35 months	90687
			5.0 mL (multi-dose vial)	25	3 years & older	90688
		Fluzone High-Dose (HIV3)	0.5 mL (single-dose syringe)	0	65 years & older	90662
		Fluzone Intradermal (HIV3)	0.1 mL (single-dose microinjection system)	0	18 through 64 years	90654

FOOTNOTES

Pediatric/Adult Influenza Vaccine 2014-2015

For influenza vaccines licensed only for adults, see page 2.

Age	Manufacturer	Brand Name	Presentation	
6-35 months old	Sanofi Pasteur, Inc.	Fuzone[®] Quadrivalent	0.25 mL single-dose syringe	
Healthy Persons 2-49 years old	MedImmune Vaccines, Inc.	Fufluz[®] Quadrivalent	0.2 mL single-dose nasal sprayer	
36 months & Older	GlaxoSmith Kline Biologicals	Fuquity[®] Quadrivalent	0.5 mL single-dose syringe	
		Fulaval[®] Quadrivalent	5.0 mL ¹ multi-dose vial	
		Fulaval[®] Quadrivalent	0.5 mL single-dose syringe	
	ID Biomedical (GlaxoSmithKline)	Fulaval[®] Quadrivalent	0.5 mL single-dose syringe	
		Fulaval[®]	5.0 mL ¹ multi-dose vial	
		Fuzone[®] Quadrivalent	0.5 mL single-dose vial	
	Sanofi Pasteur, Inc.	Fuzone[®] Quadrivalent	0.5 mL single-dose vial	
	Sanofi Pasteur, Inc.	Fuzone[®]	0.5 mL single-dose vial	
	Sanofi Pasteur, Inc.	Fuzone[®] Quadrivalent	0.5 mL single-dose syringe	
Sanofi Pasteur, Inc.	Fuzone[®]	0.5 mL single-dose syringe		
Sanofi Pasteur, Inc.	Fuzone[®] Quadrivalent	5.0 mL ¹ multi-dose vial		
Sanofi Pasteur, Inc.	Fuzone[®]	5.0 mL ¹ multi-dose vial		
4 years & Older	Novartis Vaccines and Diagnostics Ltd.	Fuvinn[®]	5.0 mL ¹ multi-dose vial	
		Fuvinn[®]	0.5 mL single-dose syringe	

Adult Influenza Vaccine 2014-2015

For influenza vaccines licensed for both adults and children, see page 1.

Age	Manufacturer	Brand Name	Presentation	
18 years & Older	Novartis Vaccines & Diagnostics Ltd.	Fucehax[®]	0.5 mL pre-filled syringe	
18-64 years	Sanofi Pasteur, Inc.	Fuzone[®] Intradermal	0.1 mL pre-filled syringe	
18-49 years	Protein Sciences	FuBok[®]	0.5 mL single-dose vial	
65 years & Older	Sanofi Pasteur, Inc.	Fuzone[®] High-Dose	0.5 mL pre-filled syringe	

KNOW YOUR INVENTORY

- Product(s)
- Age range
- Dose
- Storage and handling
- Special issues

**2015 - 2016
INFLUENZA UPDATE**

FDA RECOMMENDATIONS FOR THE 2015-2016 INFLUENZA SEASON

- **A/California/7/2009 (H1N1)pdm09-like virus**
- **A/Switzerland/9715293/2013 (H3N2)-like virus**
- **B/Phuket/3073/2013-like virus (B/Yamagata lineage).**
 - **The A(H3N2) strain and the B/Yamagata lineage strain would replace the strains in the current vaccine.**
- **B/Brisbane/60/2008-like virus (B/Victoria lineage) for the second influenza B strain in the quadrivalent vaccine**

NEW ACIP RECOMMENDATION STARTING IN 2015-2016

- **ACIP did not renew the 2014-2015 preference for using the nasal spray flu vaccine (i.e., LAIV) instead of the flu shot (i.e., IIV) in healthy children 2 through 8 years of age when immediately available.**
- **Annual influenza vaccination for everyone 6 months and older with either LAIV or IIV, with no preference expressed for either vaccine when either one is otherwise appropriate.**

VACCINES ARE COMPLEX

- New updates and regulations each flu season
- New vaccines
- Storage and handling issues
 - (multidose vials, LAIV exp. dates,
- Age appropriate vaccines
- Contraindication and precautions

THE 3 TYPES OF KNOWLEDGE

- The things you know
 - You know
- The things you know
 - You don't know
- The things you don't know
 - You don't know



UPDATE: SUB-CATEGORIES OF KNOWLEDGE

- Things you don't know... anymore a.k.a.
 - The things you know you forgot
- And the things you think you know... but don't
 - Misknowledge
 - or the rules changed

SUMMARY

- Know your inventory
- Screen your patients
- Get your flu vaccination
- Stay home from work if you are sick
- If you complete all of the above –you can feel confident protecting you and your patients from the flu

Note to Self



CDC recommends a yearly flu vaccine as the first and most important step in protecting against influenza.

Note to Self:
Get a flu vaccine to protect me, my family, and my co-workers!



Even healthy people can get the flu, and it can be serious.

QUESTIONS

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