Texas Preventable Disease
NEWS
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Contents:

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Influenza Vaccine Recommendations: 1992-93 Influenza Season

The influenza vaccine is strongly recommended for anyone six months of age or older who, because of age or underlying medical condition, is at increased risk for complications from influenza. Health-care workers and others (including household members) in close contact with high-risk persons should also be vaccinated. The trivalent influenza vaccine prepared for the 1992-93 season will include A/Texas/36/91 (H1N1)-like, A/Beijing/353/89 (H3N2)-like, and B/Panama/45/90-like hemagglutinin antigens. Recommended doses are listed in Table 1.

Current recommendations indicate that influenza vaccination should be given annually. This prevention strategy is dictated by two very important factors. First, vaccine-induced immunity to influenza wanes during the year following vaccination. Second, and perhaps more important, new strains of influenza viruses appear every year in response to selective pressures exerted by increasing levels of immunity within a population. Consequently, the components of the vaccine are changed on an annual basis in anticipation of the different virus(es) expected to circulate in each new season. Therefore, the 1992-93 vaccine differs in composition from the previous year's; supplies of the 1991-92 vaccine should not be used this season.

One dose of influenza vaccine given intramuscularly to adults and children twelve years or older will generally produce an adequate immune response. Adults and older children should be vaccinated in the deltoid muscle, infants and young children in the anterolateral aspect of the thigh. Among previously unvaccinated children younger than nine, two doses administered at least one month apart may be required for satisfactory antibody response. In adults, studies with vaccines similar to those currently used have shown little or no improvement in antibody response when a second dose was administered during the same season. Therefore, a second dose is not indicated within the same flu season for healthy adults, including those over sixty-five. Because of the lower potential for causing febrile reactions, only split virus vaccines should be used among children. These vaccines may be labeled "split," "subvirion," or "purified-surface-antigen." Immunogenicity and side effects of split and whole virus vaccines are similar among adults when vaccines are administered at the recommended dosage.

Target Groups for Special Vaccination Programs

To maximize protection of high-risk persons, medical professionals should vaccinate the groups listed in Table 2. Vaccination programs should be scheduled sometime between mid-October and the end of November. As was previously mentioned, children under the age of nine who have not previously been vaccinated should receive two doses at least one month apart, with the second dose being administered before December.

Some high-risk persons may have low antibody responses to the vaccine. Protecting these individuals against influenza may be improved by reducing the chances of exposure from their care providers and other close contacts. Even if they are asymptomatic, people with influenza virus who live with or attend to unvaccinated, high-risk persons can transmit the disease to them. For these reasons, care providers and other close contacts to high-risk persons should be vaccinated.

Continued...

Table 1. Influenza vaccine* dosage, by age group: United States, 1992-93 season

Age Group	Product	Dosage	Doses	Route
6–35 mos.	Split virus only	0.25 ml	1 or 2	IM
3–8 yrs.	Split virus only	0.50 ml	1 or 2	IM
9–12 yrs.	Split virus only	0.50 ml	1	IM
>12 yrs.	Whole or split virus	0.50 ml	1	IM

* *Contains 15 µg each of A/Texas/36/91-like, A/Beijing/353/89-like (H3N3), and B/Panama/45/90-like hemagglutinin antigens in each 0.5 ml.*

Vaccination of Other Groups

It may be wise to provide the influenza vaccine to other segments of the population. These include:

- those who provide essential community services (e.g., teachers, public safety workers, clergy)
- students or other persons in institutional settings (e.g., dormitories)
- pregnant women with medical conditions that may increase the risk of complications
- persons infected with HIV
- individuals traveling outside the United States

People from the first two categories are included so as to avoid disruption of essential and routine activities during epidemics. Although the vaccine has been safely used during pregnancy, physicians may want to delay influenza vaccination of healthy pregnant women until their second trimester as a reasonable precaution to minimize concern over a theoretical risk of teratogenicity. It may also be desirable, however, to immunize pregnant women with high-risk conditions before the influenza season begins, regardless of trimester.

Little information exists regarding the frequency and severity of influenza illness among persons with HIV, but recent reports suggest that symptoms may be prolonged and the risk of complications increased. Vaccination is a prudent precaution and will result in protective antibody levels in many recipients, although the antibody response to the vaccine may be poor in individuals with advanced HIV-related illnesses. Booster doses have not been shown to improve the immune response in such cases.

Table 2. Target groups for influenza vaccination

High-Risk Groups

- Persons 65 and over
- Persons with chronic medical conditions who reside in nursing homes & other chronic-care facilities
- Persons with chronic pulmonary or cardiovascular system disorders (includes children with asthma)
- Individuals who needed regular medical follow-up or hospitalization during previous year due to one of the following:
  1. chronic metabolic diseases (including diabetes mellitus)
  2. renal dysfunction
  3. hemoglobinopathies
  4. immunosuppression (includes ones caused by medications)
- Children & teenagers (6 months - 18 yrs) receiving long-term aspirin therapy*

Transmittal Groups (have contact with high-risk persons)

- Medical personnel in hospitals & outpatient-care settings
- Employees of nursing homes & chronic-care facilities
- Providers of home care (e.g., nurses, volunteers)
- Household members (includes children)

* *may be at risk of developing Reye syndrome*

The risk of exposure to influenza during foreign travel varies, depending on season and destination. Influenza can occur year-round in the tropics, but the season of greatest activity in the southern hemisphere is from April to September. Because of influenza's short incubation period, a person who is exposed to the virus during travel can become clinically ill while still on the road. Anyone preparing to travel in these areas during the periods mentioned should review his or her influenza vaccination history. If not vaccinated the previous fall or winter, he or she should consider vaccination. Individuals in the high-risk categories should be especially encouraged to receive the most currently available vaccine.

Persons Who Should Not Be Vaccinated

This category includes persons with known anaphylactic hypersensitivity to eggs or other components of the vaccine and adults with acute febrile illnesses.

A physician should be consulted when these cases arise (see the sidebar on side effects and adverse reactions). Amantadine hydrochloride is an option for prevention of influenza A in persons with anaphylactic hypersensitivities to influenza vaccine.* Individuals who have a history of such hypersensitivities but who are also at a higher risk for complications from influenza infections may benefit from vaccination after appropriate allergy evaluation and desensitization is conducted. Package inserts should be consulted for specific information about vaccine components, warnings, and contraindications.

Vaccination of adults with acute febrile illnesses should be delayed until their symptoms have abated. However, persons with minor illnesses or without fever (particularly children with mild respiratory tract infections or allergic rhinitis) can be vaccinated without delay.

* ***Editor's Note:*** Current recommendations on the use of amantadine hydrochloride will appear in a forthcoming issue.

Adapted from: Prevention and control of influenza: Recommendations of the Immunizations Practices Advisory Committee (ACIP). *MMWR* 1992; **41**:No. RR-9.

This flu season, the Texas Department of Health and most participating local health departments will offer influenza vaccine at low cost or without charge to those who are unable to pay for immunization.

If interested in further information regarding specific vaccines, you may contact the following manufacterers:

- Connaught Laboratories (distributed by E. R. Squibb & Sons, Inc.):
  Fluzone® whole or split
  1-800-822-2463
- Evans Medical Ltd.-Lederle Laboratories (distributed by Lederle Laboratories):
  Flu-Imune® purified-surface-antigen vaccine
  1-800-533-3753
- Parke-Davis: Fluogen® split
  1-800-223-0432
- Wyeth-Ayerst Laboratories: Influenza Virus Vaccine, Trivalent® split
  1-800-950-5099

Side Effects and Adverse Reactions

Because influenza vaccine contains only noninfectious viruses, it cannot cause influenza. In addition, the vaccine may require a few days to produce adequate immunity. Persons who delay immunization until the flu season begins may become infected with the influenza virus around the time of vaccination and incorrectly attribute the disease to the vaccine. Side effects and adverse reactions usually fall into one of three categories.

- Soreness at the site of vaccination. Can last for up to two days. Reported for less than one-third of vaccinees.
- Systemic reaction, with symptoms of fever, malaise, myalgia, and other symptoms. Infrequent, most often found in those with no exposure to the virus antigens. Begins six to twelve hours after vaccination; can persist for up to two days.
- Immediate, probably allergic, reactions (such as hives, angioedema, allergic asthma). Occur rarely. Most likely result from hypersensitivity to a vaccine component (in most cases, the residual egg protein).

Although current influenza vaccines contain only a small quantity of egg protein, this may induce immediate hypersensitivity reactions among people with severe egg allergies. Symptoms include hives, swelling of the lips or tongue, or acute respiratory distress or collapse after eating eggs. Anyone who has had one of these reactions should consult a physician for appropriate evaluation to determine whether vaccination should be done. Individuals with documented immunoglobulin E (IgE)-medicated hypersensitivity to eggs — including those who have had occupational asthma or other allergic responses from exposure to egg protein — may also be at increased risk for reactions from the vaccine and should also consult a physician. The protocol for influenza vaccination developed by Murphy and Strunk[1] may be considered for patients who have egg allergies or medical conditions that put them at an increased risk for influenza infection or its complications.

The potential exists for hypersensitivity reactions to any vaccine component. Although exposure to vaccines containing thimerosal can lead to induction of hypersensitivity, most patients do not develop reactions to thimerosal when it is a component of a vaccine, even when patch or intradermal tests indicate such a hypersensitivity. When it has been reported, hypersensitivity to this component has usually consisted of local delayed-type reactions. Influenza vaccination can inhibit the clearance of warfarin and theophylline, but studies have failed to show any clinical effects attributable to these drugs among patients receiving influenza vaccine.

Adapted from: Prevention and control of influenza: Recommendations of the Immunizations Practices Advisory Committee (ACIP). *MMWR* 1992; **41**:No. RR-9.

Reference

1. Murphy KR, Strunk RC. Safe administration of influenza vaccine in asthmatic children hypersensitive to egg proteins. *J Pediatr* 1985; **106**:931-3.

CDC Seeks Reports of Persons with Low CD4 Counts but No Evident HIV Infection

Cases of individuals with idiopathic CD4-positive cell lymphopenia (ICL) and AIDS-defining illnesses but without laboratory evidence of HIV infection have been reported recently in several states, including California, New Hampshire, and New York. Fourteen persons with this condition have been confirmed in the United States as of August 7. In addition, approximately 40 other cases are being investigated. One possible case in Texas has been reported to the CDC. Some of the identified cases have had AIDS-defining clinical conditions (e.g., *Pneumocystis carinii* pneumonia), whereas others have had less severe diseases.

A recent issue of *MMWR*[1] reviewed 5 of these U. S. cases and 21 international cases. No epidemiologic links could be demonstrated. Of the 26 cases, five had had transfusions before the onset of illness, five were homosexual men, and the rest had demonstrated no known risk factors for HIV infection. For one of the transfusion cases discussed in the *MMWR* article, a follow-up of blood donors was conducted. The results indicated that all were HIV-seronegative, immunologically normal, and in good health.

The CDC is calling for additional reports of persons with the above-named conditions. CDC considers these cases to be of the highest priority and is requesting notification within 24 hours from the time local or state health departments are informed by a physician. CDC is asking health-care providers to notify the AIDS surveillance sections of their local or state health departments of patients who have the following:

- CD4-positive T-lymphocyte depletion (absolute CD4-positive T-cell level <300 cells/μL or $<20\%$ on more than one determination),
- no serologic evidence of HIV infection, and
- no defined immunodeficiency or therapy associated with T-cell depletion.

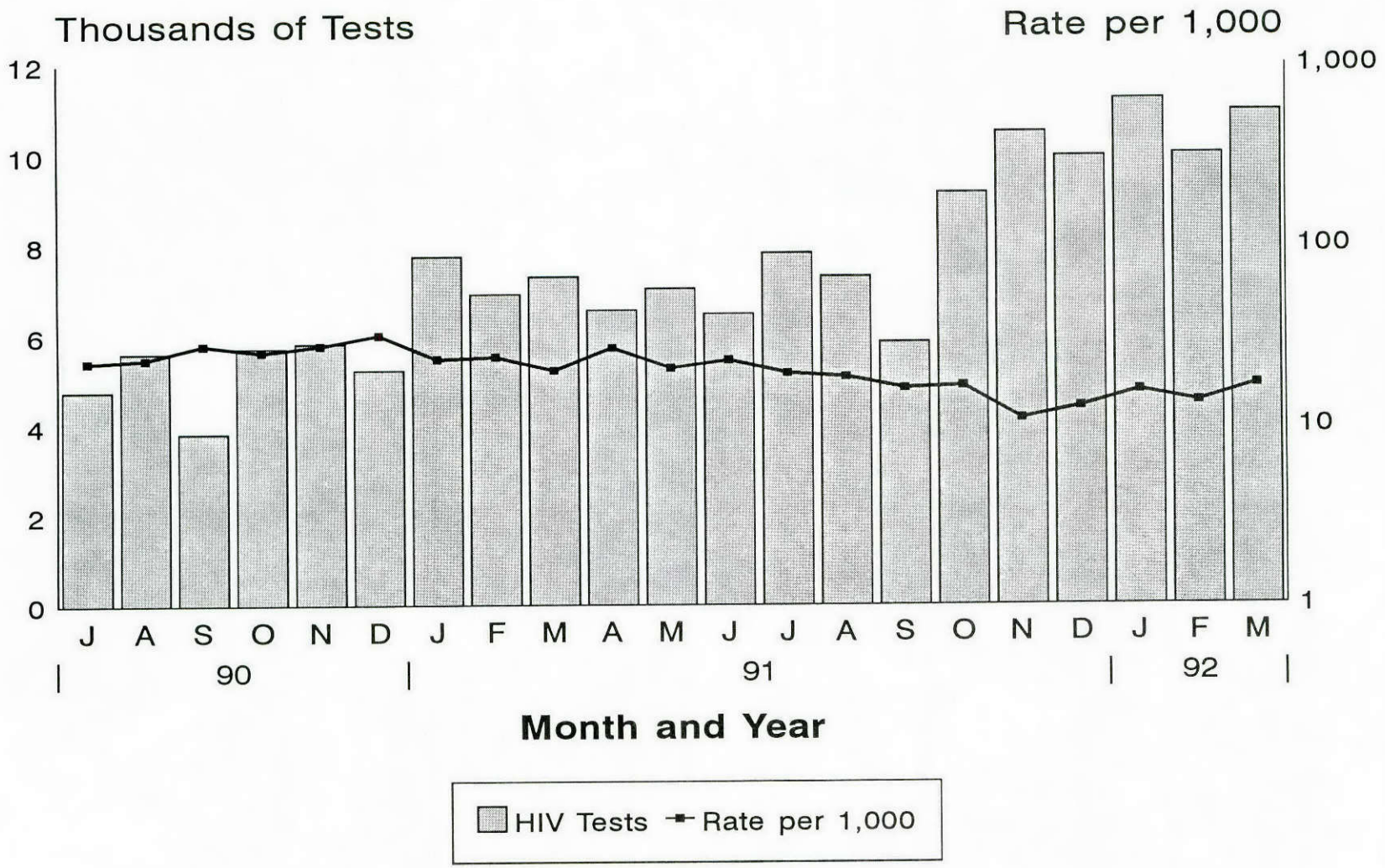
Children with unexplained CD4 cell depletion (as defined by age-adjusted normal CD4 counts) and who are HIV-negative should also be reported. (CDC has not yet received notification of any cases within this population.)

For additional information and/or reporting instructions, please contact Douglas Hamaker or George Ragsdale, Texas Department of Health/HIV Surveillance Program, at (512) 458-7504.

Reference

1. Unexplained CD4+ T-Lymphocyte Depletion in Persons without Evident HIV Infection — United States. *MMWR* 1992; **41**:541-5.

Texas HIV Prevention Program Counseling and Testing
Number of HIV Tests and Positive Rate per 1,000
By Month and Year



These rates are not incidence or prevalence rates. Those tested are self-selected; they may have duplicate tests. Private sector tests are not included. Rates declined as demand from the general population rose; demand for testing rose in Oct. 91 before Magic Johnson's Nov. announcement.

* Does not include tests from separately-funded Houston area.

MONTHLY STATISTICAL SUMMARY OF SELECTED REPORTABLE DISEASES

August, 1992

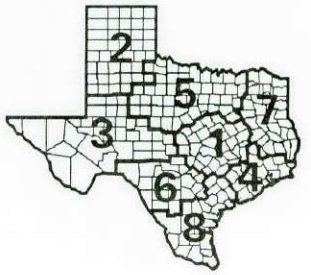
SELECTED DISEASES/CONDITIONS	PUBLIC HEALTH REGION								SELECTED TEXAS COUNTIES								THIS MONTH		CUMULATIVE (to this month)	
	1	2	3	4	5	6	7	8	Bexar	Dallas	El Paso	Harris	Hidalgo	Nueces	Tarrant	Travis	1991	1992	1991	1992
SEXUALLY TRANSMITTED DISEASES*																				
Syphilis, primary and secondary	38	1	2	127	110	12	17	4	12	70	2	93	2	2	20	10	361	311	3,312	2,289
Congenital Syphilis	0	0	0	9	2	3	3	0	1	0	0	9	0	0	2	0	36	17	140	210
Penicillinase-producing Neisseria gonorrhoeae (PPNG)	21	1	1	60	17	15	0	1	15	7	1	5	0	0	8	2	258	63	1,778	927
ENTERIC DISEASES																				
Salmonellosis	8	5	13	3	6	0	6	3	0	2	11	2	0	0	1	7	273	44	1,449	831
Shigellosis	15	0	8	6	6	4	0	8	0	3	5	0	1	2	1	13	270	47	1,512	1,663
Hepatitis A	2	0	7	1	6	1	0	7	0	2	2	0	0	0	2	2	192	24	1,990	937
Campylobacteriosis	6	1	3	0	5	0	2	1	0	3	3	0	0	0	0	6	105	18	594	571
BACTERIAL INFECTIONS																				
H. influenzae, invasive	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	115	26
Meningococcal, invasive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	64	69
Lyme disease	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	6	1	45	53
Vibrio species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	19	7
OTHER CONDITIONS																				
Influenza & flu-like illness	5	933	14	179	18	32	78	230	20	0	0	179	0	218	0	0	936	1,489	130,578	35,911
Hepatitis B	6	0	1	0	8	1	1	1	0	6	1	0	0	0	2	4	179	18	1,324	973
Adult elevated blood lead levels	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	0	417	262
Animal rabies - dogs and cats	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	35	40
Animal rabies - total	6	0	5	0	1	4	4	7	4	0	1	0	1	1	0	2	22	27	311	327
TUBERCULOSIS DISEASE*																				
Children (0-14 years)	2	4	1	19	1	1	1	2	1	0	1	15	1	0	1	0	17	31	136	131
Adults (>14 years)	13	4	11	109	35	18	2	18	9	28	9	107	6	5	5	7	221	210	1,354	1,290
INJURIES*¶																				
Spinal cord injuries	2	1	1	5	1	1	1	3	0	0	1	5	0	1	0	1	N/A	15	N/A	112

* Data for the STD's, Tuberculosis, and spinal cord injuries are provided by date of report, rather than date of onset.
¶ Voluntary reporting.

1991 POPULATION ESTIMATES

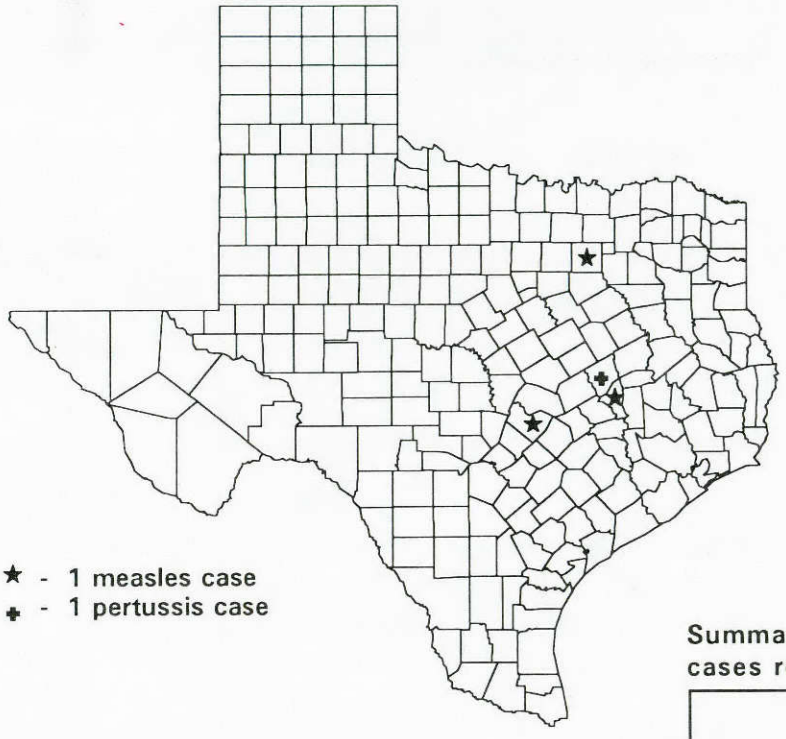
PUBLIC HEALTH REGIONS			
1	1,760,924	5	4,848,688
2	741,857	6	1,640,610
3	1,148,201	7	1,224,653
4	4,343,872	8	1,550,883

SELECTED TEXAS COUNTIES			
Bexar	1,195,510	Hidalgo	395,398
Dallas	1,870,753	Nueces	293,965
El Paso	604,389	Tarrant	1,177,915
Harris	2,872,645	Travis	584,682



Vaccine-Preventable Disease Update*

Suspected/Confirmed Cases Reported With
Onsets from 8/23/92 - 9/5/92
(Weeks 35-36)



★ - 1 measles case
✚ - 1 pertussis case

Measles
&
Pertussis

* Total cases with onset dates during reporting period

Summary of suspected/confirmed cases reported YTD:

	Latest Onset Date	Total This Period	YTD Total
MEASLES	9/ 1/92	3	1,440
RUBELLA	8/21/92	—	103
PERTUSSIS	8/29/92	1	75

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