disease prevention news

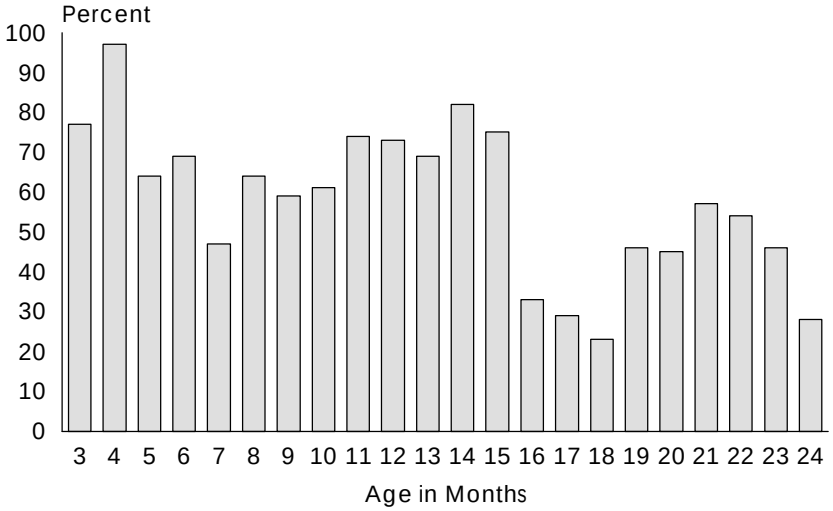
DPN

Vol. 56, No. 7 April 1, 1996

Vaccination Coverage of Texas Children Under 2 Years, 1994

Underimmunization in children under 24 months of age is a serious health problem in Texas. Retrospective surveys conducted before 1993 showed that Texas had some of the lowest immunization coverage in the nation. In 1993 the Texas Department of Health (TDH) initiated a coordinated campaign, with private and public partners, to get all children fully immunized by age 2 years. By summer of 1994, immunization strategies were being widely and effectively carried out, but the state still had no accurate and current estimate of the immunization status of Texas children under 2 years old. In 1994 TDH commissioned the Public Policy Research Institute at Texas A&M University to conduct a statewide household survey of children aged 3 to 24 months. This report presents state estimates of vaccination coverage among children under 2 years of age; comparisons are made with national estimates and with the national goal.

Vaccination Levels Among Texas Children Under Age 2 Years, 1994



Percent up-to-date defined as follows: age 3 to 4 months, 1 DTP:1 OPV age 5 to 6 months, 2 DTP:2 OPV age 7 to 15 months, 3 DTP:2 OPV age 16 to 24 months, 4 DTP:3 OPV:1 MMR.

The population-based survey employed a 3-stage cluster sampling design. To find children age 2 to 24 months, 116,446 households were screened. Trained interviewers solicited immunization histories from a parent or legal guardian. There was an estimated response rate of 85% for the 4,832 interviews that were completed. Seventy-two percent of respondents had vaccination records from which the interviewer copied dates for each diphtheria/tetanus/pertussis (DTP), polio, and measles/mumps/rubella (MMR) dose administered. For respondents without records, interviewers recorded the number of vaccinations and the age at each vaccination, based on parental recall. Overall, 5% of respondents did not know how many doses of DTP or polio vaccinations a child had received or even whether they had received any doses at all. Nine percent did not know if or at what age the child had received an MMR vaccination. These respondents were excluded in calculations of percent coverage for each vaccine. Percentages reported were weighted to account for individual sample selection probabilities and to adjust for the state's population distribution.

Continued ☞

Also in this issue:

The preceding figure shows by age the percentage of Texas children who were up-to-date at the time of interview. Up-to-date means having 1 DTP and 1 OPV for ages 3 to 4 months, 2 DTP and 2 OPV for ages 5 to 6 months, 3 DTP and 2 OPV for ages 7 to 15 months, and 4 DTP, 3 OPV, and 1 MMR for ages 16 to 24 months. Very young children, children aged 3 and 4 months, and children close to 1 year old (11 to 15 months) had vaccination levels above 70%. Children older than 15 months had vaccination levels below 50%.

Vaccination Levels Among Texas Children 19-24 Months Compared with US Children 19-35, 1994

	Texas		United States	
Vaccine	%	95% CI	%	95% CI
DTP				
3 Doses	82.3	76.8-87.8	87.0	83.2-90.8
4 Doses	55.9	48.7-63.1	67.2	62.8-71.7
Polio				
3 Doses	72.0	64.1-79.8	76.0	71.9-80.2
MMR	70.7	64.1-77.2	89.6	87.0-92.2
3 DTP/3 Polio/1 MMR	58.7	51.2-66.2	75.5	71.1-80.0
4 DTP/3 Polio/1 MMR	49.5	41.5-57.5	66.0	61.4-70.6

Comparing the vaccination levels among Texas children age 19 to 24 months with national levels indicates that Texas children lag behind (table above). The best coverage (82.3%) is achieved for the 3 doses of DTP. However, nearly half of the children have not received the fourth DTP shot by age 2 years. Vaccination levels for polio appear comparable to the national levels, but there is considerable underimmunization for MMR in Texas. For the combined series of 4 doses of DTP, 3 doses of polio vaccine, and 1 dose of MMR, coverage in Texas children age 19 to 24 months was 50% compared with 66% nationally.

Editorial Note

Findings from this large survey show how far Texas children are from achieving the 1996 national goal of 90% coverage for the recommended series. Although most children under 1 year old are being vaccinated, there is considerable loss in coverage in the second year of life. Many Texas children are not receiving the fourth dose of DTP or the critical MMR vaccine in the second year of life. Even if providers are waiting until 18 months of age to give the fourth DTP booster and the MMR, up-to-date levels never reach what they were in the first year. The prevention of outbreaks of measles and other diseases requires that all parents strictly adhere to the recommended schedule for their children. These results suggest that state intervention efforts such as the *Shots Across Texas* immunization initiative need to continue and focus on motivating parents and providers to complete the vaccination series.

Prepared by Lucina Suarez, MS, Biostatistician, TDH Associateship of Disease Control and Prevention; Diane Simpson, PhD, MD, Associate Commissioner of Disease Control and Prevention; and David Smith, MD, Commissioner of Health

Rules and Regs Revisions

The Infectious Disease Epidemiology and Surveillance Division (IDEAS) has prepared a set of proposed revisions to Chapter 97 of the *Communicable Disease Rules and Regulations, Title 25, Texas Administrative Code.* Published in the March 8, 1996, issue of *The Texas Register* (Vol. 21, pp 1845-1849), these revisions address changes to the list of reportable diseases and the recommendations for managing potential exposures of emergency medical staff. Please send comments to Kate Hendricks, MD, MPH&TM, IDEAS Division, Texas Department of Health, 1100 W. 49th Street, Austin, Texas 78756-3199 (FAX512/458-7616). The comment period extends through April 8, 1996.

1994 TDH Survey Profiles Risk Factors for Sedentary Lifestyle

Along with smoking and poor nutrition, a sedentary lifestyle is one of the major causes of coronary heart disease, the leading cause of death in Texas. A Texas Department of Health Behavioral Risk Factor Surveillance System (BRFSS) survey of Texas households in 1994 revealed the following:

◆ Age is directly related to the physical activity profile. Among Texans aged 65 years and older, 67% were sedentary, compared with 51% among those aged 18 to 24 years.

◆ Education showed a strong correlation with a sedentary lifestyle. Among survey respondents, 69% of those with less than a high school education were sedentary, compared with 45% of those who graduated from college.

◆ Household income and a sedentary lifestyle are inversely related. Of those earning less than $15,000 yearly, 69% reported a sedentary lifestyle, compared with only 46% of those earning more than $35,000 per year.

◆ Obese Texans tend to be more sedentary than those who are not obese. Of respondents who were obese, 63% reported a sedentary lifestyle, compared with 53% of those who were not obese.

◆ Health insurance status was a significant predictor of physical activity levels. Seventy-one percent of uninsured Texans who participated in the survey reported a sedentary lifestyle, compared with 53% of those who had health insurance coverage.

Only 13% of the Texans who participated in this survey reported physical activity levels classified as regular and vigorous. Thirty-one percent were physically active on a regular basis, 29% had an irregular physical activity profile, and 28% were physically inactive.

Research has shown that regular physical activity has a protective influence not only against coronary heart disease, but also against diabetes mellitis, osteoporosis, the effects of aging, anxiety and depression, and some cancers. Given the positive effect of physical activity on health, the Healthy People 2000 report recommends numerous activity-related objectives which all address increasing frequency, duration, and intensity of physical activity for children, adults, and older Americans alike.

The BRFSS survey results suggest that more effort is needed to meet the Healthy People 2000 objectives for physical activity. Resources directed toward increasing physical activity among all segments of the Texas population can reduce future health and welfare costs in this state. TDH recommends the following preventive measures:

◆ Educate older Texans regarding the health benefits of a physically active lifestyle, especially in reducing the risk of coronary heart disease.

◆ Target public health interventions toward less educated and lower socioeconomic status Texans.

◆ Assure that interventions reach Texans who have inadequate access to health care.

Summarized from: Condon KW, Diamond R, Huang, PP. Physical Activity 1994 Survey Data. Texas Risk Factor Report 1995; 2(1):1-6.

For further information regarding the TDH Behavioral Risk Factor Surveillance System, contact Kenneth Condon or Roger Diamond at (512) 458-7200

Postexposure Rabies Prophylaxis in Cases Involving Possible Exposure to Bats

On March 8, a 4-year-old girl who resided in Washington was hospitalized after a 2-day history of drowsiness, listlessness, abdominal pain, anorexia, sore throat, and pain on the left side of her neck. The emergency room records documented observation of nasal congestion and drooling; rhinitis and bilateral conjunctivitis were diagnosed, antibiotics and symptomatic treatment were prescribed, and she was discharged.

She was readmitted March 9 when her signs and symptoms worsened, including hallucinations, fever, and elevated white blood cell count. Later that morning, following a seizure and intubation for hypoventilation, she was transported by air to the intensive care unit of a regional hospital. In transit she became bradycardic and required cardiopulmonary resuscitation. By March 10 she was comatose. A nuchal skin biopsy obtained on March 13 was positive for rabies by direct fluorescent antibody (DFA) testing. The child died on March 15.

Bats have been increasingly implicated as wildlife reservoirs for variants of rabies virus that have been transmitted to humans.

The family members reported that they had found a bat in the girl's bedroom on February 18. When they found no evidence of a bite on the child, they destroyed the bat and buried it. Following exhumation of the bat on March 14, DFA and nucleotide sequence analysis determined that the brain was positive for rabies[1].

Bats have been increasingly implicated as wildlife reservoirs for variants of rabies virus that have been transmitted to humans. Among the 14 indigenously-acquired human rabies cases in the United States since 1990, 12 are attributable to bat strains of rabies virus (including 8 that are associated with the silver-haired bat strain). Of these 12 cases, a known bite was reported in only 1. In 3 other cases, a bat(s) had been found in the house or office, but no bite was detected; in another 3 cases the person had physical contact with a bat, but no bite was noted. In the remaining 5 cases, there was no history of contact. The lack of a reported bite in these rabies cases could be because of limited recall in some of the cases, as 3 were in children 13 years of age or younger, or because of minor, undetectable injury being inflicted by a bat bite. Only 3 of the cases involved occupations or hobbies that are considered at high risk for exposure to rabies, including a trapper, a spelunker, and a person who removed bats from an office area.

These findings have prompted a need for the reevaluation of postexposure rabies prophylaxis (PEX) recommendations. The Centers for Disease Control and Prevention (CDC) have advised that the following recommendations[1] be followed in conjunction with the guidelines of the Advisory Committee on Immunization Practices[2]:

In situations in which a bat is physically present and the person(s) cannot exclude the possibility of a bite, postexposure treatment should be considered unless prompt testing of the bat has ruled out rabies infection.

References

1. CDC. Human rabies -Washington, 1995. MMWR 1995;44:Sept. 1.
2. ACIP. Rabies prevention - United States, 1991: recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40 (no. RR-3).

Prepared by Pam Wilson, MEd, CHES, Zoonosis Control Division (512) 458-7255

Diabetes - A Costly Killer

Diabetes is sometimes referred to as a silent killer. As the number of Texans with diabetes continues to escalate, however, the monetary costs come across loud and clear. A study of diabetes costs released in December 1995 revealed that the probable cost of diabetes in Texas in 1992 exceeded $4 billion. These costs include $1.6 billion for direct medical care and $2.4 billion in lost productivity due to short-term illness, long-term disability, and premature mortality.

Many of the diabetes complications also occur independently of diabetes. Therefore, diabetes costs were classified as follows: cost clearly attributable to diabetes, cost probably attributable to diabetes, and total cost of care regardless of cause.

Costs clearly attributable to diabetes amounted to about $2 billion, including $500 million for direct medical care and $1.5 billion in indirect costs. Total costs for persons with diabetes, without consideration of cause, were formidable - $3.2 billion in medical care, including care for conditions which may or may not be attributable to the disease. Total indirect costs without regard to cause or limitation of death, were estimated at $4.3 billion.

In this study, direct medical costs included Medicare spending for inpatient, hospital outpatient, and physician services; and Medicaid spending for inpatient and outpatient care and for prescriptions. The estimate also included expenditures for diabetes by four of the larger Veterans Administration hospitals, certain public hospitals, private insurance programs, certain projects and programs administered by the State of Texas such as the Kidney Health Program and Texas Commission for the Blind, and some expenditures by migrant and community health centers.

Among direct medical costs probably attributable to diabetes, Medicare expenditures were by far the largest: more than $659 million spent for inpatient and outpatient care. Costs of pharmaceuticals used by Medicare and privately insured patients were estimated at $277 million. Private insurance and associated out-of-pocket expenses for those under age 65 totaled $253 million. Other significant costs were deductibles and coinsurance associated with Medicare that exceeded $142 million, Medicaid outlays of $96 million, and VA costs of $36 million.

State and local costs of diabetes were not inconsequential. Three state agencies spent about $18 million as a consequence of diabetes. Costs identified at the public hospitals studied (excluding patients covered by Medicare, Medicaid, state programs and private insurance) and the County Indigent Care Programs totalled $36 million.

. . . the probable cost of diabetes in Texas in 1992 exceeded $4 billion.

Indirect costs probably attributable to diabetes in 1992 accounted for 60% of the total cost estimate; 60% ($1.43 billion) of indirect costs were due to long-term disability. It was estimated that around 72,200 Texans were totally disabled, and another 47,200 partly disabled, as a probable consequence of diabetes. Approximately 7,100 persons died prematurely as a probable consequence of diabetes, at an estimated cost of $853 million. Short term illness was estimated to have cost about 4,700 person-years of productivity.

These estimates are probably far below the actual costs because they do not include nursing home, home health, or many ambulatory surgery costs. The researchers in this ongoing study continue to refine and update these estimates as new data are gathered.

Adapted from Direct and Indirect Costs of Diabetes in Texas, 1992. Report to the Texas Diabetes Council by the Texas Diabetes Cost Project.

For further information contact the Texas Diabetes Council at (512) 458-7490.

HIV/STD Phone Numbers

Texas Department of Health Bureau of HIV/STD Prevention:

Main Number ..... (512) 490-2500*
Bureau Central Office ..... (512) 490-2505
* Gives callers the option of dialing direct extensions or selecting the Central Office, Epidemiology Division, or Health Resources Division.

HIV/STD Medication Program ..... (512) 490-2510
HIV/STD Medication Program Hotline ..... (800) 255-1090
Texas AIDSLINE ..... (800) 299-AIDS
En Espanol ..... (800) 299-2437
TDD-Hearing Impaired ..... (800) 252-8012

HIV/STD Health Resources Division: ..... (512) 490-2515
Field Operations ..... (512) 490-2520
Planning and Policy ..... (512) 490-2525
Grants and Contracts ..... (512) 490-2530
Training and Public Education ..... (512) 490-2535

HIV/STD Epidemiology Division: (512) 490-2545
Data and Technical Support ..... (512) 490-2550
Epidemiology and Evaluation ..... (512) 490-2555
Surveillance ..... (512) 490-2560

State Organizations:

TDH Film Library ..... (512) 458-7260
HIV Funding Information Center ..... (512) 458-7684
AIDS Legal Assistance Line ..... (800) 828-6417
Texas Information Service for Health Professionals ..... (800) 548-4659
Coalition of Texans with Disabilities ..... (512) 478-3366
Texas Commission On Alcohol & Drug Abuse ..... (512) 463-5510

National Organizations:

National AIDS Hotline ..... (800) 342-AIDS
En Espanol ..... (800) 344-SIDA
TDD-Hearing Impaired .....(800) AIDS-TTY
National STD Hotline ..... (800) 227-8922
HIV/AIDS Treatment Information Service ..... (800) HIV-0440
AIDS Clinical Trials Information ..... (800) 874-2575
Minority Health Resource Center ..... (800) 444-MHRC
National AIDS Information Clearinghouse ..... (800) 458-5231*
* For CDC education Materials, MMWR's and CDC Updates
National Association of People with AIDS ..... (202) 898-0414
Pediatric AIDS Coalition ..... (800) 336-5475
People with AIDS Coalition Hotline ..... (800) 828-3280

Vaccine Preventable Disease Update
Confirmed cases with onset from 1/1/96-2/29/96

Condition	County	Number of Cases	Date of Onset	Condition	County	Number of Cases	Date of Onset
Mumps	Midland	1	1/3	**Pertussis**	Nueces	1	1/12
	Harris	1	1/9			1	1/20
	Williamson	1	1/18		Hill	1	2/5
	Deaf Smith	1	1/27			1	2/6
	Bexar	1	1/28				
	Brazoria	1	2/11	**Rubella**	Cass	1	1/15
					Galveston	1	1/18
Pertussis	Jefferson	1	1/6			1	2/5
	Bexar	1	1/10		Harris	1	2/5
	Coryell	1	1/10		Dallas	1	2/6

YTD	Measles	Mumps	Pertussis	Rubella
	0	6	7	5

Jan/Feb 1996

Bimonthly Statistical Summary of Selected Reportable Diseases

Selected Diseases/Conditions	HHSC Region 1	2	3	4	5	6	7	8	9	10	11	Selected Texas Counties Bexar	Dallas	El Paso	Harris	Hidalgo	Nueces	Tarrant	Travis	This Period 1995	1996	Cumulative[1] 1995	1996
Sexually Transmitted Diseases[2]																							
Syphilis, primary and secondary	14	2	48	2	23	53	13	5	0	0	3	0	29	0	50	1	3	13	10	186	179	186	179
Congenital Syphilis	0	0	2	0	0	23	0	1	0	0	1	0	3	0	23	0	0	0	0	31	27	31	27
Resistant Neisseria gonorrhoeae	2	0	3	0	0	1	2	1	0	0	2	0	3	0	0	1	2	0	2	12	11	12	11
Enteric Diseases																							
Salmonellosis	5	3	19	8	4	3	18	5	12	4	9	0	13	4	0	0	7	0	6	170	90	170	90
Shigellosis	1	0	14	5	1	15	17	11	11	5	12	0	7	5	4	4	2	0	8	338	92	338	92
Hepatitis A	12	3	48	23	0	74	17	6	4	42	75	1	22	42	67	31	4	8	9	483	304	483	304
Campylobacteriosis	12	3	7	4	4	4	11	1	3	2	5	0	4	2	1	2	1	1	7	133	56	133	56
Bacterial Infections																							
H. influenzae, invasive	*0	*0	*0	*0	*0	*0	*0	*0	*0	*0	*1	*0	*0	*0	*0	*0	*0	*0	*0	*42	*1	*42	*1
Meningococcal, invasive	3	1	34	8	2	5	4	3	4	2	1	2	12	2	3	0	1	15	2	57	67	57	67
Lyme disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	15	0
Vibrio species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
Other Conditions																							
AIDS[4]	3	8	134	11	14	218	44	49	6	20	23	47	83	19	201	0	13	45	30	729	590	729	590
Hepatitis B	2	3	20	5	2	21	6	3	2	4	7	0	16	4	17	0	5	1	6	233	75	233	75
Adult elevated blood lead levels	0	0	4	0	1	0	0	23	0	0	3	23	1	0	0	0	0	1	0	101	31	101	31
Animal rabies - total	1	2	1	1	0	3	13	18	16	1	9	1	0	0	1	1	1	0	1	132	65	132	65
Animal rabies - dogs and cats	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	27	4	27	4
Tuberculosis Disease[2]																							
Children (0-14 years)	2	0	2	0	0	9	3	0	0	0	1	0	0	0	7	0	0	2	1	14	17	14	17
Adults (>14 years)	4	2	26	6	1	103	13	20	4	10	15	11	14	10	83	6	3	9	7	193	204	193	204
Injuries[2]																							
Spinal Cord Injuries	1	1	23	0	0	12	6	7	0	7	0	5	1	7	7	0	0	9	4	21	57	21	57

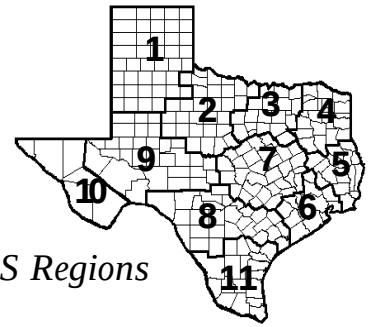
1. Cumulative to this month. 2. Data for the STD's, Tuberculosis, and spinal cord injuries are provided by date of report, rather than date of onset. 3. Voluntary reporting. 4. AIDS totals include reported cases from Texas Department of Corrections, which are not included in the regional and county totals. *Tentative totals

Call 1-800-705-8868 to report

1994 POPULATION ESTIMATES

HHSC REGIONS							
1	751,822	4	931,379	7	1,844,240	10	684,580
2	530,445	5	680,001	8	1,919,939	11	1,499,969
3	4,724,463	6	4,184,163	9	537,820		
STATEWIDE TOTAL 18,286,827							

SELECTED TEXAS COUNTIES			
Bexar	1,268,744	Hidalgo	442,346
Dallas	1,987,680	Nueces	306,499
El Paso	658,498	Tarrant	1,314,613
Harris	3,004,010	Travis	605,804



DHHS Regions

Disease Prevention News (ISSN 1068-7920) is a free, biweekly publication of the Texas Department of Health, Public Health Professional Education, 1100 West 49th Street, Austin, TX 78756-3199, (512) 458-7677. Second-class postage paid at Austin, TX.

POSTMASTER: Send address changes to Disease Prevention News, 1100 West 49th Street, Austin, TX 78756-3199.

Disease Prevention News
Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3199

Second Class Postage Paid at Austin, TX

Return Postage Guaranteed

Subscription Renewal / Change of Address Form

Subscriptions to state publications must be renewed annually. To remain on the DPN mailing list, please return this completed form NO LATER THAN May 31, 1996. ***Please type or print clearly. Place this entire page in a stamped envelope and mail to:*** **Disease Prevention News, Texas Department of Health, 1100 West 49th Street, Austin, TX 78756-3199.**

Name _____ ❑ **New** ❑ **Renewal** ❑ **Change of Address**
First MI Last

Business _____ **Title** _____
(if applicable) (Dir., Offics Mgr., etc.)

Address _____ **County** _____
Street/Box #, Apt//Suite #

_____ **Daytime Phone** ( ) _____
City, State ZIP+4

Vocation

1. ❑ MD ❑ DO ❑ PA
Specialty _____
❑ FP ❑ GP ❑ IM
❑ PD ❑ OBG ❑ PH
❑ ER ❑ ID ❑ Other _____
2. ❑ RN ❑ LVN _____
Specialty _____
❑ 3. DDS/DDM
❑ 4. DVM
❑ 5. Other discipline/certification _____
(e.g. PHD, EMT, MT ASCP, RPH etc.)
❑ 6. University student
❑ 7. None of the above

Primary Employment Setting

❑ 1. Public health
❑ 2. Priv/Grp/HMO practice
❑ 3. Hospital
❑ 4. Student health center
❑ 5. Higher education/research
❑ 6. Library
❑ 7. Correctional Facility Health Center
❑ 8. Long term care facility
❑ 9. Healthcare agency
❑ 10. Other

Please indicate below if you are:

❑ 1. Director: Texas local health district, department, or unit
❑ 2. State or territorial epidemiologist
❑ 3. Infection control practitioner
❑ 4. Laboratory director
❑ 5. None of the above