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Seroprevalence of HIV Among Childbearing Women Texas, 1988-91

Since AIDS case documentation began in the 1980s, 828 (4.8%) of the 17,353 reported adult/adolescent cases of AIDS in Texas were women. Two hundred seventy-nine (34%) of the women acquired AIDS through heterosexual contact and 311 (38%) through intravenous drug use. However, 242 (29%) of the 828 cases among Texas women were reported in 1992 alone and represent 8% of the 2,952 AIDS cases reported in Texas in calendar year 1992.¹ Those figures suggest that HIV is taking an increasing toll on Texas women.

Because the median incubation period for HIV infection and AIDS diagnosis is 10 to 11 years, current AIDS case exposure groups represent HIV transmission exposure groups of a decade ago. This characteristic underscores the importance of identifying current HIV transmission patterns so that prevention efforts and treatment can be targeted toward population groups who are at risk now.

Several studies funded by the Centers for Disease Control and Prevention (CDC) have monitored trends of HIV infection among different segments of the U.S. population. Seroprevalence studies typically have focused on high risk groups (persons seeking drug treatment or seen in sexually transmitted disease clinics) and the general public (patients admitted to select sentinel hospitals, blood donors, persons entering military service)². The Massachusetts Department of Health conducted the first seroprevalence studies among childbearing women, and, since 1987, 43 states and U.S. territories have implemented similar studies.³

Since 1988 the Texas Department of Health (TDH) has conducted a CDC funded seroprevalence survey of HIV among childbearing women in the state. This report profiles the results of this TDH survey for the period 1988-91. It includes overall rates in Texas, rates by race/ethnicity for the state, and rates for the three largest counties: Harris (Houston), Dallas, and Bexar (San Antonio).

The HIV seroprevalence survey among childbearing women uses blood specimens which are routinely collected from the heels of Texas newborns as part of the state's genetic disease screening program. After the genetic screening is completed, personal identification information is stripped from the specimen. Then a random survey number is assigned before HIV testing is done. For each of the 1988-1991 surveys, all non-duplicate heel-stick blood specimens submitted for genetic screening during April through July were tested. The number of specimens tested statewide gradually increased from approximately 86,000 in 1988 to 97,000 in 1991.

Continued ➤

Also in this issue:

Errata
Acute Respiratory Illness
TB Associated Deaths in Texas
Projected AIDS Cases for 1992-1995
Alpha-Interferon Treatment of
Chronic Hepatitis B
Vaccine-Preventable Disease Update
Monthly Statistical Summary

Table 1 shows the HIV prevalence rates between 1988 and 1991 per 1,000 women tested for Harris, Dallas, and Bexar Counties and the state as a whole. Harris County has the highest prevalence rates, followed by Dallas County. Differences in HIV prevalence among sub-populations should be kept in mind when Table 1 and the following tables are examined. When the prevalence of disease is relatively low, as HIV is among many sub-populations of Texas women, sample rates (even those derived from fairly large samples) fluctuate more around the underlying true rates than they would if the prevalence were higher. In such situations, small increases or decreases in the number of positive samples found can lead to wide, but statistically insignificant, changes in sample rates. As prevalence increases, sample rates become more reliable.

HIV prevalence rates, grouped by race/ethnicity for the entire state, are shown in Table 2. Overall, African-American women have the highest prevalence rate, followed by white women. Tables 3, 4 and 5 show the respective HIV seroprevalence rates by race/ethnicity, for Harris, Dallas, and Bexar Counties. In each county, African-American women have the highest prevalence rates, and Harris County has the highest rates in that racial/ethnic group.

Seroprevalence rates from the Texas childbearing women survey do not reflect the exact prevalence of HIV among women in their reproductive years because women giving birth each year differ in some respects from other women of childbearing age for that year. In 1989, for example, only about 7% of the women in their reproductive years (aged 15 to 44) gave birth.⁴ In addition, women giving birth to live children are more likely to be young, members of minority groups, and of lower socioeconomic status, when compared to all women of reproductive age.² Nevertheless, this serosurvey provides the least biased view of HIV seroprevalence among women in Texas.

The finding that African-American women in Texas have the highest seroprevalence rate of

any racial/ethnic group is comparable to findings for similar studies done in California and Connecticut.^{5,6} In both of those states, however, Hispanic women had the second highest seroprevalence rates, while reported rates for Hispanic women and white women in Texas were statistically similar.

A preliminary evaluation of the 1988-91 seroprevalence results in childbearing women has prompted state funding for education projects in Harris, Dallas, and Bexar Counties. These three projects began in December 1992 and will continue through August 1993.

A \$62,022 grant to the Houston Institute for the Protection of Youth will focus on adolescent women who are either homeless, runaways, and/or earning their living through sexual activity. Peer counselors will work with these adolescents, educating them about high-risk behaviors for acquiring HIV and helping them to gain needed social services.

The Dallas County Health Department was awarded \$59,102 to work with Hispanic and African-American women who attend the Young Adult Clinic at Parkland Memorial Hospital, reside in women's shelters, or live in a southeast Dallas area that has high STD/HIV rates. This project is aimed at increasing the number of women using condoms and seeking STD/HIV services.

In San Antonio, the Mujeres Project has been awarded \$53,782 to serve Hispanic women who live in the East Side district or are incarcerated in the Bexar County jail. Peer education is targeting toward three groups: women who are drug abusers, women who seek medical care in Mexico, and women who have high-risk sex partners. The goals of the program are to help women identify their own high-risk behaviors, change those behaviors, and be referred for HIV testing.



Seroprevalence Rates* for Childbearing Women, 1988-91

Table 1. Region

	Harris	Dallas	Bexar	Statewide
1988	2.05	1.20	.94	.94
1989	1.35	.96	.85	.74
1990	1.79	1.42	.16	.69
1991	2.04	.86	.44	.90

Table 2. Texas

	White	Hispanic	African-American
1988	.59	.49	3.54
1989	.42	.42	2.94
1990	.37	.26	3.46
1991	.42	.32	4.38

Table 3. Harris County

	White	Hispanic	African-American
1988	1.08	.87	6.17
1989	.34	.46	5.12
1990	1.16	.56	5.78
1991	.58	.90	6.79

Table 4. Dallas County

	White	Hispanic	African-American
1988	1.07	.41	2.50
1989	.57	.45	1.75
1990	1.08	.00	4.26
1991	.17	.38	3.26

Table 5. Bexar County

	White	Hispanic	African-American
1988	.44	1.06	2.92
1989	.55	1.15	3.39
1990	.00	.55	.00
1991	1.47	.00	.00

* Per 1,000 tested

References:

1. Texas Department of Health. Texas AIDS Cases: Surveillance Report. January 1, 1993.
2. Pappaioanou M, et al. The family of HIV seroprevalence surveys: Objectives, methods and uses of sentinel surveillance in the United States. *Public Health Reports* 1990; **105**:113-9.
3. Pappaioanou M, et al. HIV Seroprevalence surveys of childbearing women: Objectives, methods and uses of the data. *Public Health Reports* 1990; **105**:147-152.
4. National Center for Health Statistics. Births, marriages, deaths and divorces for 1989. *Monthly Vital Stat Rep* 1990; **38(S)**:147-52.
5. Capell FJ, et al. Distribution of HIV Type 1 Infection in childbearing women in California. *Am J Public Health* 1992; **82**:254-6.
6. Checko PJ, et al. HIV seroprevalence among childbearing women in Connecticut. *Connecticut Medicine* 1992; **55**:9-14.

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Errata

❖ Vol. 52, No. 24, dated October 28, 1992, should have been dated November 28. On the Monthly Statistical Summary, the following errors should be corrected:

Congenital Syphilis, Public Health Region 4, the number of cases should be 3, not 31. The monthly total for 1992, Tuberculosis Disease, Children, should be 11, not 17; Adults, should be 258, not 252.

❖ Vol. 53, No. 1, page 6, "1993 Case Definition for AIDS," second paragraph, first sentence should read, "The new surveillance definition represents an effort that began in May 1991 when the CDC and the Council of State and Territorial Epidemiologists (CSTE) recommended expanding AIDS surveillance to include all HIV-infected persons with CD4+ T-lymphocyte counts <200 cells/ μ L."

Acute Respiratory Illness Linked to Aerosol Leather Conditioner Use

From December 23 through December 31, 1992, poison control centers in at least 17 states reported approximately 550 cases of illness associated with the use of Wilsons Leather Protector, an aerosol leather conditioner. By December 27, the manufacturer, Wilsons, had issued a voluntary recall of this product.

Symptoms typically began within a few minutes to several hours after use of the product. Reported manifestations of the illness included prolonged non-productive cough, shortness of breath, pleuritic chest pain, headache, malaise, chills, and fever as high as 104°F. Pulmonary infiltrates have been reported in some cases. The most commonly reported symptoms suggest an acute chemical pneumonitis or a hypersensitivity pneumonitis. For many persons, the symptoms appeared to resolve in less than 24 hours.

The Centers for Disease Control and Prevention (CDC) is conducting an epidemiologic investigation to further define the association between illness and use of this product, and the specific cause of illness. CDC also is working

with the Consumer Product Safety Commission (CPSC) regarding the CPSC-administered Federal Hazardous Substances Act, which requires hazardous household products to bear appropriate cautionary labeling.

CDC has requested that state health departments report to CDC cases that involve persons being hospitalized for conditions related to the use of this product. The standardized case form may be obtained from:

Centers for Disease Control and Prevention
Air Pollution and Respiratory Health Branch
Division of Environmental Hazards
and Health Effects
National Center for Environmental Health
1600 Clifton Road
Atlanta, Georgia 30333
(404) 448-7320

Further information regarding this product is available from the CPSC Hotline at 1-800-638-2772.

Condensed from CDC *MMWR* January 8, 1993, Vol. 41, No. 52/53.

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Tuberculosis Associated Deaths in Texas Reported from January - August, 1992

Bureau of Vital Statistics, Tuberculosis Elimination Division, and regional and local health department staff, reviewed 138 death certificates for which tuberculosis contributed to the persons' death. Five had inactive tuberculosis. One hundred thirty-three were reported to have had active tuberculosis. Of these, 71 (53.4%) were born in Texas, and another 36 (27.1%) were born in the US outside of Texas. Ten (7.5%) had diabetes mellitus; 22 (16.5%) had Human Immunodeficiency Virus (HIV) infection. Twenty of these 22 HIV-infected tuberculosis cases were male and ranged in age from 22 to 61 years with an average of 36.6 years. In comparison, 77 (69%) of the 111 not HIV-infected were males; they ranged in age from less than one to 97 years with an average of 64.4 years.

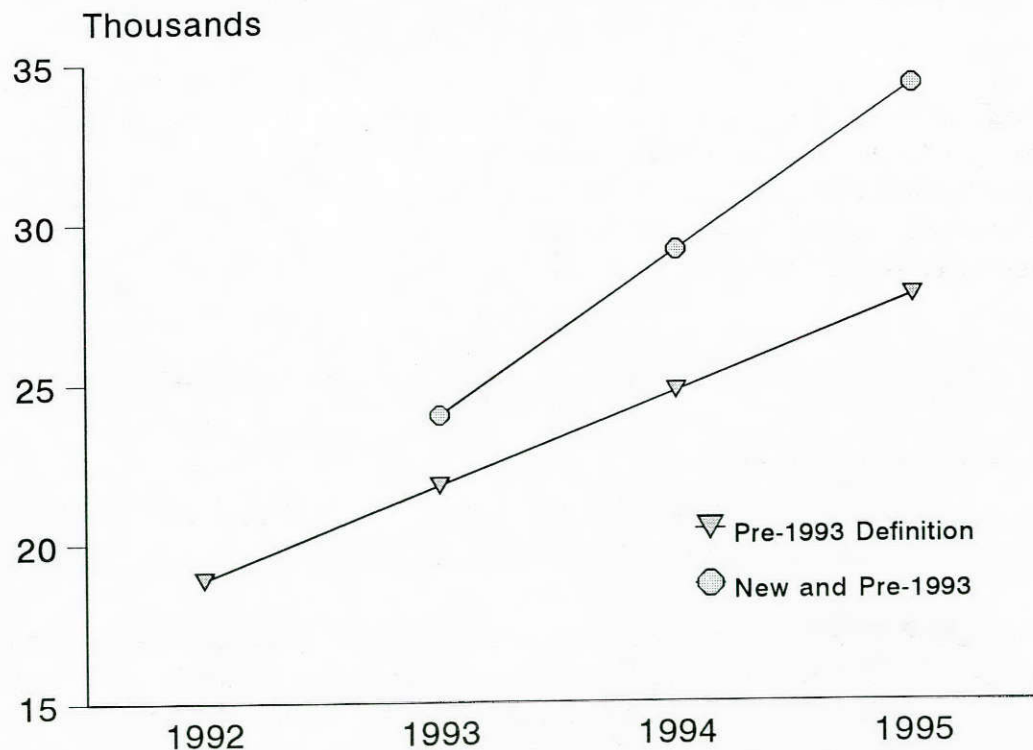
Projected AIDS Cases for the Years 1992 Through 1995

The projected number of AIDS cases diagnosed in Texas for 1992 through 1995 are provided in the following figure. For the years 1993 through 1995 there are two estimates: one based on the number of cases diagnosed in the past under the pre-1993 definition and one based on the number of cases expected to be diagnosed as a result of the definition that went into effect January 1, 1993 plus the cases projected under the pre-1993 definition.

CDC estimates that the new definition will result in 30,000 to 40,000 cases nationwide in 1993, in addition to the cases reported under the pre-1993 definition. Based on the steady proportion of Texas cases to national cases (7.3%), TDH estimates that the new definition will result in approximately 2,200 additional Texas cases each year for 1993, 1994, and 1995. The projections of new cases in 1994 and 1995 under the new definition are not as firm as for 1993.

Submitted by: Emily Townsend, PhD, Epidemiologist, Bureau of HIV and STD Control.

Projected Cumulative AIDS Cases, Texas



Pre-1993 Definition	18.862	21.804	24.747	27.689
New and Pre-1993		24.004	29.147	34.289

Prepared December 1992 based on cases as of November 1, 1992

Alpha-Interferon Treatment of Chronic Hepatitis B

The U.S. Food and Drug Administration (FDA) in September 1992, approved the use of alpha-interferon for the treatment of chronic hepatitis B. The approval comes after reviewing the results from extensive clinical trials conducted in major medical centers throughout the country. Alpha-interferon therapy is recommended for the treatment of advanced liver diseases such as chronic active hepatitis or cirrhosis, which are caused by chronic hepatitis B infection. Patients receiving this therapy over the course of several months show significant long-term improvement in liver function.

Earlier, the FDA had approved the use of alpha-interferon for the treatment of chronic hepatitis C.

As with chronic hepatitis B, alpha-interferon is recommended for patients with advanced liver disease due to chronic hepatitis C infection. Unlike the results achieved with chronic hepatitis B, chronic hepatitis C patients treated with alpha-interferon may experience a relapse after completion of therapy, indicated by elevations in their liver function tests.

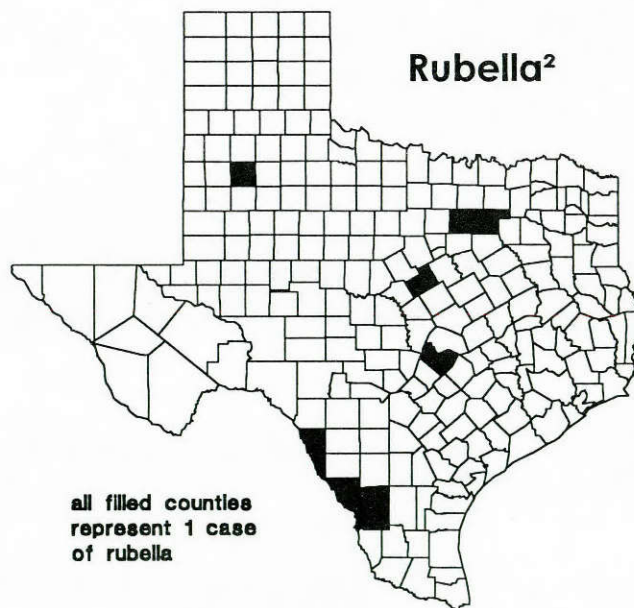
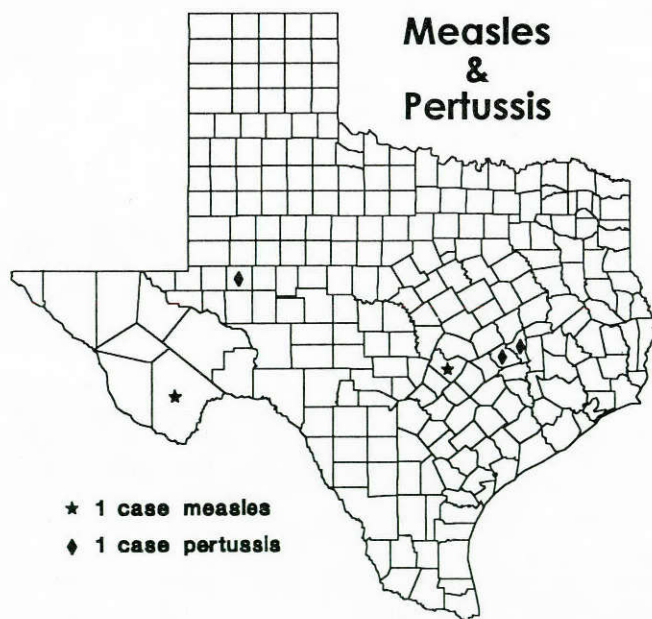
Patients with chronic hepatitis B or C should check with an internal medicine physician or gastroenterologist in their area.

Submitted by: Lynne Schulster, PhD, Infectious Diseases Program, TDH.



Vaccine-Preventable Disease Update

Suspected/confirmed cases reported with onsets
from 12/27/92 through 1/9/93¹
Weeks 1-2



Summary of Suspected/Confirmed Cases Reported YTD:

	Latest Onset Date	Total This Period	YTD Total ³
Measles	1/6/93	2	—
Rubella	1/8/93	8	—
Pertussis	1/9/93	3	—

¹ Total cases with onset dates during reporting period.

² All cases were reported as suspected measles/rubella and are being tested for each; however, they are counted as suspected rubella cases for reporting purposes.

³ The reporting period for this issue covers both 1992 and 1993. YTD totals will resume with the next issue of PDN.

MONTHLY STATISTICAL SUMMARY OF SELECTED REPORTABLE DISEASES

December 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 ¹																				
Syphilis, primary and secondary	25	1	3	92	100	8	49	3	8	49	1	51	1	7	32	1	524	281	4,970	3,316
Congenital Syphilis	4	0	0	25	13	1	1	2	1	7	0	22	1	0	5	0	65	46	260	338
Penicillinase-producing Neisseria gonorrhoeae (PPNG)	10	1	1	10	10	23	0	0	23	7	1	8	0	0	2	0	155	55	2,457	1,192
ENTERIC DISEASES																				
Salmonellosis	6	3	7	0	3	4	5	3	2	0	1	0	0	0	0	4	142	31	2,317	1,728
Shigellosis	78	6	9	5	7	12	0	14	4	2	2	2	0	3	0	42	99	131	2,178	3,177
Hepatitis A	2	0	8	20	9	8	3	5	6	5	5	13	1	0	3	1	115	55	2,663	1,694
Campylobacteriosis	10	1	0	0	2	2	3	0	2	1	0	0	0	0	0	8	28	18	810	929
BACTERIAL INFECTIONS																				
H. influenzae, invasive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	152	38
Meningococcal, invasive	1	0	0	1	2	0	1	0	0	0	0	0	0	0	2	0	18	5	100	104
Lyme disease	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	3	57	76
Vibrio species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	25	14
OTHER CONDITIONS																				
Influenza & flu-like illness	360	1,950	8,205	14,969	386	119	357	2,484	64	0	8,008	14,715	0	1,882	0	2	92,027	28,830	386,911	88,107
Hepatitis B	5	0	5	2	3	2	5	4	0	1	1	1	0	2	0	4	164	26	1,958	1,437
Adult elevated blood lead levels	1	0	0	0	3	11	0	0	11	2	0	0	0	0	0	0	15	52	624	452
Animal rabies - dogs and cats	1	0	1	0	1	0	0	12	0	0	0	0	1	0	0	0	4	15	53	72
Animal rabies - total	2	0	3	0	3	0	0	22	0	0	0	0	1	0	0	0	30	30	447	462
TUBERCULOSIS DISEASE ^{1 2}																				
Children (0-14 years)	1	1	1	9	5	1	0	7	0	1	1	7	4	1	4	1	17	25	187	205
Adults (> 14 years)	33	0	20	108	34	23	15	28	15	16	18	87	11	8	14	18	196	261	2,055	2,228
INJURIES ^{1 3}																				
Spinal cord injuries	6	3	0	1	4	4	4	0	4	0	0	0	0	0	1	2	N/A	22	N/A	235

¹ Data for the STD's, Tuberculosis, and spinal cord injuries are provided by date of report, rather than date of onset.

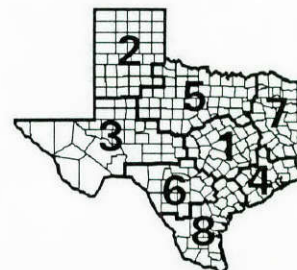
² Provisional data.

³ Voluntary reporting.

1991 POPULATION ESTIMATES

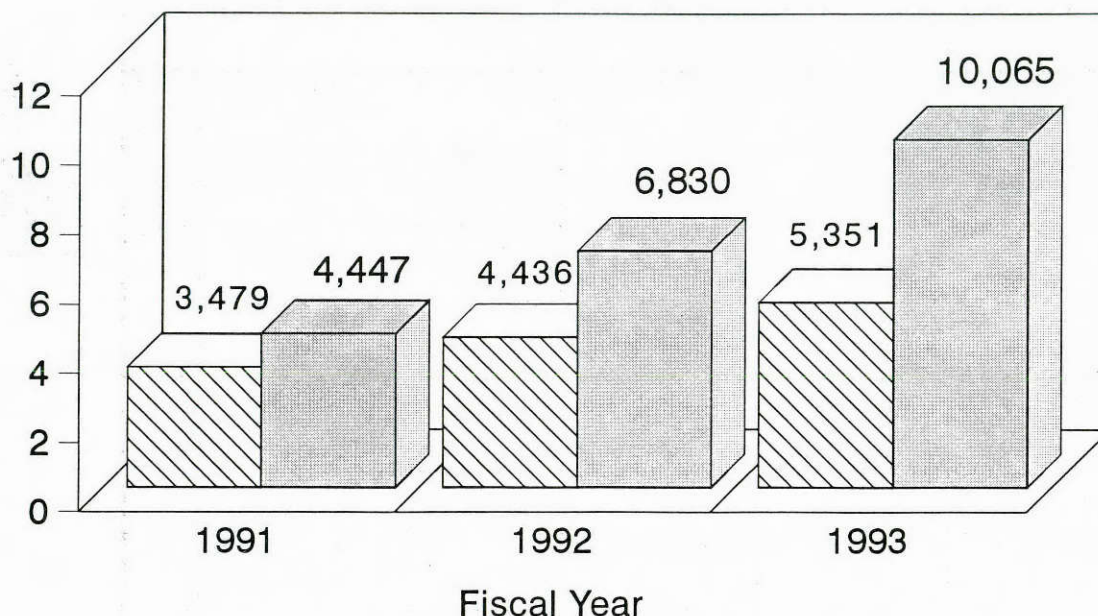
PUBLIC HEALTH REGIONS			
1	1,760,924	5	4,848,688
2	741,857	6	1,640,610
3	1,148,201	7	1,224,653
4	4,343,872	8	1,550,883

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



Indicators of Need for HIV Services Among Texans with HIV and AIDS

Number of persons potentially
in need of services (thousands)



▨ # Living AIDS cases* ■ Est. # of clients**

- * Cases living as of the beginning of the fiscal year
 ** Estimated unduplicated HIV Services Program clients served with state funds. Clients include people with HIV and people with AIDS. Numbers represent individuals served, not the number of services provided. Dependents of clients are also served but are not included in estimates. Additional clients may be served with federal funds.

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