disease prevention news

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Disease Reporting and Surveillance in Texas

Disease surveillance may be defined as the organized assembly, review, explanation, and distribution of data describing the occurrence of disease in a population. Its ultimate purpose is reduction of disease frequency. In the past, disease surveillance was limited to analysis of mortality records. Though still important, mortality records provide only superficial information about fatal events. The main purpose of surveillance has always been disease control and prevention. Prior to the advent of the antibiotic era, prevention often meant quarantine—a crude, but often effective, measure. Currently, prevention usually takes the form of chemoprophylaxis, which forms a solid but imperceptible barrier between the ill individual and the community.

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There are three basic forms of disease surveillance: **active, passive,** and **sentinel**. Active surveillance involves the routine collection of diagnostic information directly from health care facilities (ie, hospitals, birthing centers, laboratories). Active surveillance yields the most reliable data about the actual prevalence of disease in a community, but it is prohibitively expensive in most settings. Passive surveillance is relatively inexpensive to conduct but often yields drastic undercounts of disease occurrence. Sentinel surveillance typically focuses on only one or a few conditions in persons seeking care at selected health facilities. Often used as an adjunct to the other types of surveillance, it is better at identifying the existence rather than the magnitude of disease.

Texas primarily relies upon a passive system for surveillance of infectious disease. Physicians, other health care providers, hospitals, laboratories, blood banks, school officials, and others who diagnose or are aware of cases of notifiable disease are required by law to report those cases appropriately. Specific regulations covering the reporting process are included in the Communicable Disease Prevention and Control Act (Section 81 of the Health and Safety Code), and the Texas Administrative Code (Article 97, Title 25).

The benefits of an effective disease surveillance system are substantial, for both the community as a whole and for practicing physicians. Among these benefits are

- Control of disease outbreaks. Prompt reporting is essential to identifying and eliminating sources of infection, whether foodborne, waterborne, vector-borne, etc.
- Early initiation of prophylaxis.
- Identification of high-risk groups. For example, populations at highest risk of developing AIDS were defined well before the etiology of the disease was understood.
- Identification of emerging infections. The cause and distribution of hantavirus pulmonary syndrome in North America might not have been recognized if not for the astute observations of an individual physician.
- Assessment of vaccine effectiveness.
- Analysis of antimicrobial resistance.
- Measurement of rising and falling trends in disease incidence.
- Identification of unique disease problems within particular regions or counties.
- Providing basic data for health care planning, policy analysis, and biomedical research.

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A modern disease surveillance system may derive data from a variety of advanced immunologic, molecular, and microscopic techniques, and it can transmit these data throughout the world instantaneously. However, no part of such a system is more important than the contribution made by physicians and other health professionals in promptly reporting notifiable diseases as they are identified. Although the overall significance of a given case of disease is not always immediately obvious, it may prove to be the case that alerts a surveillance worker to a food-borne outbreak, defines the geographical limit of a vector-borne disease, or provides the critical piece of information in an epidemiologic study. Health professionals remain essential to disease surveillance in Texas.

No disease surveillance system is practical unless it returns information to the community in a usable form. The Texas Department of Health publishes a wide range of surveillance data through everal sources. One of the primary purposes of this newsletter, *DPN*, is to make epidemiologic data available to health professionals throughout Texas. Also, the *Epidemiology in Texas Annual Report* is available from the Bureau of Communicable Disease Control, 1100 W. 49th Street, Austin TX, 78756. Annual *Texas Vital Statistics* reports are available from the Bureau of Vital Statistics. The Centers for Disease Control (CDC) publishes national and international surveillance information in *Morbidity and Mortality Weekly* reports, accessible at **http://www.cdc.gov/epo/mmwr/mmwr.html**.

Also in this issue are articles that summarize major changes that affect reporting of traumatic brain injuries and sexually transmitted diseases, including HIV infection.

The current list of reportable diseases in Texas is provided on page 7. Certain antimocrobial resistant organisms also have been made reportable. See *DPN* Vol. 58, No. 21 for details. *These diseases should be reported by calling the toll-free number that automatically accesses the proper local health authority:*

(800) 705-8868

For more information on reporting procedures or any other aspect of disease surveillance or epidemiology in the state, please call the Infectious Diseases Program at the Texas Department of Health in Austin, at **(512) 458-7228.**

Prepared by Richard Campman, PhD, Epidemiology Division, PHR 11.

HIV/STD Reporting Changes

At the end of 1998, the Texas Board of Health approved reporting changes for certain common sexually transmitted diseases (STDs). The Texas Department of Health implemented these changes January 1, 1999. Reporting requirements were changed for HIV, AIDS, chancroid, *Chlamydia trachomatis* infection, gonorrhea, and syphilis. This report primarily focuses on the most notable change–HIV reporting by name. Other key provisions remove the definitions of HIV and AIDS from the general communicable disease definition section to eliminate redundancy, consistently define STD to include HIV and AIDS, and consistently list all the reportable STDs together. Definitions of HIV, AIDS, and STDs were amended to be consistent with those used by the Centers for Disease Control and Prevention (CDC).

Name-based HIV reporting is the change that is most significant and required considerable effort on the part of TDH. To solicit input from health professionals, HIV/AIDS patients, and the community at large, TDH conducted extensive meetings throughout the past year. Detailed descriptions of the information

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gathering and decision making processes involved in these changes are available on the Internet at http://www.tdh.state.tx.us/hivstd/input.htm.

Starting January 1, 1999, laboratories and health care providers began reporting confirmed cases of HIV infection by name to the local surveillance authority. **To report cases, providers can call (800) 705-8868**, which automatically connects the caller to the proper health authority.

Need for Reporting HIV by Name

AIDS, the late stage of infection with HIV, has been reportable by name in Texas since 1983. Recent advances in the treatment and prevention of HIV infection have resulted in a decrease in AIDS mortality and a longer time to the development of AIDS after HIV infection. Thus, reliable reporting of AIDS no longer provides adequate information for understanding the epidemiology of HIV in Texas.

National, state, and local advocacy groups agree that it is critical to have better monitoring of HIV infection. Accurate data are essential to ensure that HIV prevention and service resources are directed to the communities and groups bearing the greatest burden of HIV disease. It also allows resource allocations to be more sensitive to shifts in the HIV epidemic.

From 1994 through 1998, Texas used a reporting system based on assigning each HIV case a unique number. However, HIV reporting systems that use names produce more reliable information about the epidemic than do non-named systems. States that have HIV reporting by name report that their systems miss only 3% to 26% of the diagnosed HIV cases in those states. By comparison, the non-named system used to report HIV in Texas missed about 74% of the cases diagnosed from July 1994 through December 1996. This poor level of reporting does not allow for adequate monitoring nor for understanding the changing demographics of the epidemic. The missed cases may also cause shortfalls in funding that is allocated according to disease incidence.

In addition to incomplete reporting, non-named systems do not allow adequate TDH follow-back to the provider and the patient to ensure that the patient is offered appropriate referral for available services and partner notification. Follow-back by trained public health professionals means that all individuals with confirmed HIV infection receive the following services:

- Notification that they are infected with HIV
- Appropriate referral to health and social services
- Assistance in telling their sex and/or drug use partners of their possible exposure to HIV

Procedure

The following information is required for the morbidity report on each confirmed HIV infection:

- Name, address, birthdate, sex, and race/ethnicity of the infected person
- Test type, date, and result
- Name and address of the provider making the HIV diagnosis

The local surveillance authority will follow back with local providers to fill out a complete HIV infection case reporting form. They will also work with providers to ensure that the infected individual

- knows his/her test result,
- has been referred to medical and social services, and
- has been offerred assistance in notifying sex and/or drug-use partners of their possible exposure to HIV.

The local surveillance authority will send case reports to the central TDH office (Austin), which will remove identifying information and send aggregate reporting data to CDC.

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TDH will accept case reports identified by name only if the test date falls on or after January 1, 1999. A case for which the last positive HIV test falls before that date should not be reported to TDH until the person develops AIDS.

Anonymous HIV Testing

People who do not want to have their real names placed on their HIV tests can choose to be tested anonymously. TDH is committed to making this option available in all areas of the state. By Texas law, all public health clinics must offer anonymous testing or give referrals to sites that do. Additionally, all HIV testing sites that get funds from TDH must offer anonymous HIV testing on site. The names of persons who test positive with anonymous tests will not be reported. However, most HIV service providers require a confidential positive test result—one with the client's real name—before they will provide services. *Anyone can call* **(800) 299-AIDS** *to find out the closest location where anonymous HIV testing is available.*

Security Measures for Confidentiality

Surveillance information is **not** public information. By law, all surveillance information, including HIV reporting information, is confidential and privileged. This means that no one can find out a person's HIV status by filing an open records request or a Freedom of Information Act request. There are very limited circumstances under which surveillance information containing a name might be released (eg, to protect the health of a spouse, health care workers, first responders, emergency personnel, peace officers, fire fighters, and victims of sexual assault).

Surveillance workers who inappropriately release or disclose surveillance information face various legal sanctions; intentional or criminally negligent breaches of confidentiality are Class A misdemeanors (Health and Safety Code, §81.103).

Surveillance workers cannot be deposed or subpoenaed to release surveillance information about an individual. They cannot be questioned in a civil, criminal, special, or other proceeding about the existence or contents of the surveillance records of a person examined or treated for a reportable disease without that person's consent (Health and Safety Code §81.046). Surveillance workers do not give law enforcement agencies, immigration agencies, insurance companies, employers or families access to the databases which contain surveillance information. Local, regional, and state surveillance workers have successfully guarded the names of more than 46,000 AIDS patients for 15 years without a known breach of confidentiality in the surveillance system.

State and local surveillance sites use the following security measures to insure confidentiality:

- Staff are required to sign confidentiality agreements and are subject to criminal and civil penalties, and loss of employment if they breach confidentiality. Staff members receive training in how to conduct case investigations and handle information while maintaining data security and confidentiality.

- Physical barriers separate the public from all areas where the information is kept. Computers that hold the data are not accessible to the public nor to other public health workers outside the surveillance unit. These computers are stand-alone systems and cannot be accessed through modems or the Internet. A limited number of surveillance workers at each site can access the databases.

- The surveillance system is electronically secured through passwords and encryption.

- The TDH conducts regular security audits of local surveillance sites—often with unannounced visits—to insure that strict security measures are observed.

Summarized from Bureau of HIV/STD Prevention materials.

For more information, contact Sharilyn Stanley, MD, Chief, TDH Bureau of HIV/STD Prevention, at (512) 490-2505.

Changes in Reporting of Traumatic Brain Injuries

Traumatic brain injury (TBI) is a major public health problem in the United States and in Texas. It is among the most catastrophic of injuries and, unfortunately, among the most common. Nationally, an estimated 260,000 hospitalizations and 51,000 deaths occur each year; 70-90,000 survivors are permanently disabled. Of these, 2,000 exist in a persistent vegetative state. The direct and indirect costs of TBI are estimated at $37 billion annually. The leading causes of TBI are motor vehicle crashes, falls, and violence.

It is estimated that every year 108,000 Texans will sustain a TBI (1 every 5 minutes); 6,500 Texans will be permanently disabled (18 every day); 20,000 will be hospitalized (2 every hour); and 3,000 will die (1 every 3 hours). Although these figures are currently accepted as reasonable estimates, only population-based studies can properly characterize the nature and extent of TBIs in Texas.

During the 75th Legislative Session (1997), a state law was passed mandating the reporting of TBI to the Texas Department of Health. The first step toward assessing the magnitude of TBI was completed with the final adoption of reporting rules by the Board of Health in July 1998. Implementation of the rules began in October 1998.

TBI is defined as "an acquired injury to the brain, including brain injuries caused by anoxia due to near drowning." The term includes skull fractures and intracranial injury but does not include brain dysfunction caused by congenital or degenerative disorders or birth trauma. The following International Classification of Diseases 9th Revision Clinical Modifications (ICD-9-CM) diagnostic codes are used to identify TBI: 800.0-801.9, 803.0-804.9, and 850.0-854.1. (The ICD - 9 - CM diagnostic code to be used to identify TBI caused by anoxia due to near drowning is 348.1.)

Any TBI that results in hospital admission or death must be reported. A hospital that admits a patient with a TBI is required to report, through electronic transmission via modem, to the department's Texas Trauma Registry on at least a quarterly basis. An "admission" is a patient who stays in the hospital for 24 hours or longer. Deaths due to TBI should be certified as such on the death certificate and do not need to be reported separately to TDH.

Those TBIs that are a result of anoxia due to near-drowning are to be reported within 10 days to the local health authority, or where there is no local health authority, the regional health authority. The local health authority or regional health authority shall transmit the paper reporting forms to the Injury Epidemiology and Surveillance Program. In addition, the new rules state that patients being treated or admitted in an acute care or post acute rehabilitation hospital for a TBI are to be reported to the state. The required reporting data elements and the mechanism for reporting are being discussed with rehabilitation facilities and will be finalized in the near future. The surveillance data will be analyzed and reports will be disseminated to participating sentinels and posted on the Injury Epidemiology and Surveillance Program's website **(http://www.tdh.state.tx.us/injury/)**.

For more detailed information contact the Injury Epidemiology and Surveillance Program at 512-458-7266.

Reporting Scorecard

Last year, we compared 1995 and 1996 disease reporting data. In Public Health Regions (PHR) 4, 7, 8, and 11 reported cases of notifiable conditions increased, but the number of cases of notifiable conditions decreased in the remaining regions.

A challenge was issued: "Where in Texas will reporting be improved most next year?" The answer is PHR 1, where the number of reported cases of notifiable conditions more than doubled. (Map of regions is on the back page.)

Congratulations to PHR 1!

Thanks to everyone who reports.

HAPPY NEW YEAR!!!

Case Report Comparison Among Public Health Regions 1996-1997

PHR	1996	1997	No.	%	⇑/⇓
1	612	1372	760	124.2	⇑
2	226	282	56	24.8	⇑
3	2893	3114	221	7.6	⇑
4	557	636	79	14.2	⇑
5 North	105	109	4	3.8	⇑
5 South	160	228	68	42.5	⇑
6	2774	3000	226	8.1	⇑
7	1572	1746	174	11.1	⇑
8	1891	2084	193	10.2	⇑
9	346	341	-5	-1.4	⇓
10	638	603	-35	-5.5	⇓
11	2102	2478	376	17.9	⇑

Remember!! For the diseases listed on the following page, reporting is not voluntary--it is "the law." Maintaining patient confidentiality is also a legal requirement.

Reporting information is posted on the Infectious Disease Epidemiology and Surveillance website--**http://www.tdh.state.tx.us/ideas/ideasweb.htm**.

Reportable immediately by telephone

Botulism, foodborne
Cholera
Meningococcal infections, invasive
Plague
Rabies, human
Viral hemorrhagic fevers
Yellow fever
Diphtheria
Haemophilus influenzae type b, invasive
Measles (rubeola)
Pertussis
Poliomyelitis, acute paralytic

Reportable within one working day

Rubella
Tuberculosis

Reportable within one week

Acquired immune deficiency syndrome (AIDS)
Amebiasis
Anthrax
Asbestosis
Botulism (infant)
Brucellosis
Campylobacteriosis
Chancroid
Chlamydia trachomatis infection
Creutzfeldt-Jakob disease (CJD)
Cryptosporidiosis
Dengue fever
Drowning/near drowning
Ehrlichiosis
Encephalitis (specify etiology)
Escherichia coli O157:H7 infection
Gonorrhea
Hansen's disease (leprosy)
Hantavirus infection
Hemolytic uremic syndrome (HUS)
Hepatitis, acute viral (specify type)
HIV
Lead, adult elevated blood
Lead, childhood elevated blood
Legionellosis
Listeriosis
Lyme disease
Malaria
Meningitis (specify type)
Mumps
Pesticide poisoning, acute, occupational
Relapsing fever
Salmonellosis (including typhoid)
Shigellosis
Silicosis
Spotted fever group rickettsioses
Streptococcal disease, invasive
Syphilis
Tetanus
Trichinosis
Typhus
Vibrio infections
Yersiniosis

In addition, varicella (chickenpox) is reportable by number and age group of cases only. Previously, most HIV infection was reportable by the last four digits of the social security number. On January 1, 1999, name-based HIV reporting was implemented. See "HIV Reporting Changes" of this issue (page 2) for more information.

Complete and mail the order blank below to receive a complete set of the currently available forms.

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Request for Reporting Forms

Name_____ Organization_____

Address_____ Office Phone_____/_____
Street

_____ Email_____
City/State/Zip

Please mail to
Infectious Disease Epidemiology and Surveillance Division
1100 West 49th Street
Austin, Texas 78756-3199

For information call 512/458-7676 or 800/705-8868

Disease Prevention News (DPN)
Texas Department of Health
1100 West 49th Street
Austin, TX 78756-3199
Phone: (512) 458-7677
Fax: (512) 458-7616
Email: dpn@discon.tdh.state.tx.us

The electronic versions of *Disease Prevention News* are available at the following locations:
http://www.tdh.state.tx.us/phpep/dpnhome.htm
TDH Healthy Texans BBS: (800) 858-5833

Texas Department of Health Public Health Regions

Regional Offices*

PHR 1	**Lubbock**
	Canyon
2&3	**Arlington**
	Abilene
	Wichita Falls
4&5N	**Tyler**
6&5S	**Houston**
	Beaumont
7	**Temple**
	Austin
8	**San Antonio**
	Uvalde
9&10	**El Paso**
	Midland
	San Angelo
11	**Harlingen**
	Corpus Christi

*** Headquarters in bold**