



Texas Department of Health
 Zoonosis Control Division
 1100 West 49th Street
 Austin, Texas 78756

Rabies Biologicals 1999 Surveillance Summary

The Texas Health and Safety Code (§826.025) mandates that Texas Department of Health (TDH) supply rabies biologicals (vaccine and immune globulin) for persons who have been exposed to rabid or potentially rabid animals. Although TDH is supposed to be reimbursed for the cost of these biologicals, no one who has a valid exposure to rabies is denied access to them based on their inability to pay. TDH also supplies vaccine for preexposure prophylaxis of people but does not do so without financial reimbursement.

Regional TDH offices are required to store and dispense the biologicals. In an effort to make the biologicals readily available to Texas residents throughout the state, TDH regional offices may contract with local health departments and hospitals to serve as depots for storing and dispensing biologicals. The cost and quantity of rabies biologicals shipped from TDH in Austin to all locations (regional offices and depots) are shown in Table 1. Surveillance data, including the demographic information on who received the biologicals and the reasons the biologicals were dispensed, is maintained by TDH (mandated by §97.123 of the Rules of the Board of Health "Provision of Anti-Rabies Biologicals"). A single form is used for both surveillance and for financial accounting (attached).

Some private sources (such as hospitals) directly stock and dispense rabies biologicals and do not contract with TDH. These sources do not supply surveillance information to TDH and are not included in this Summary. TDH supplies most of the biologicals dispensed in the state of Texas; therefore, the data presented should reflect overall trends.

Location	HDCV Single Dose Vial	HDCV-ID Single Dose Vial	HRIG 2 ml	HRIG 10 ml	RVA Single Dose Vial	Total Value
PHR 1	\$14,141.40 (140)	\$8,985.00 (150)	\$16,952.00 (163)	0	0	\$40,078.40
PHR 2/3	\$114,141.30 (1,130)	\$29,650.50 (495)	\$95,160.00 (915)	\$15,000.00 (30)	0	\$253,951.80
PHR 4/5	\$47,979.75 (475)	\$6,888.50 (115)	\$37,544.00 (361)	\$5,000.00 (10)	0	\$97,412.25
PHR 6	\$23,737.35 (235)	\$25,757.00 (430)	\$22,672.00 (218)	\$11,500.00 (23)	0	\$83,666.35
PHR 7	\$109,595.85 (1085)	\$34,861.80 (582)	\$109,304.00 (1051)	\$15,000.00 (30)	0	\$268,761.65
PHR 8	\$22,121.19 (219)	\$2,396.00 (40)	\$16,120.00 (155)	\$2,500.00 (5)	0	\$43,137.19
PHR 9/10	\$40,404.00 (400)	\$9,883.50 (165)	\$36,504.00 (351)	\$5,000.00 (10)	0	\$91,791.50
PHR 11	\$70,808.01 (701)	\$6,289.50 (105)	\$46,800.00 (450)	\$5,000.00 (10)	\$314.28 (4)	\$129,211.79
Total	\$442,928.85 (4385)	\$124,711.80 (2082)	\$381,056.00 (3664)	\$59,000.00 (118)	\$314.28 (4)	\$1,008,010.93

Table 1 – Cost and Quantity of Rabies Biological Shipments, by Public Health Region, 1999

Preexposure Prophylaxis

Human Rabies Prophylaxis Surveillance Reports indicate that approximately 682 people received vaccine for preexposure prophylaxis, of which 367 received vaccine as a booster and 315 received the initial vaccination series of three injections. TDH provided preexposure vaccine to 1 person who resided in New Mexico. A total of 404 people acquired preexposure vaccine from regional TDH offices while 271 received the vaccine from depots. The distribution site was not listed on 7 reports (Figure 1). Distribution of the preexposure vaccine based on the Public Health Region in which the patient resided is summarized in Figure 2. The reason for obtaining preexposure prophylaxis is summarized in Table 2.

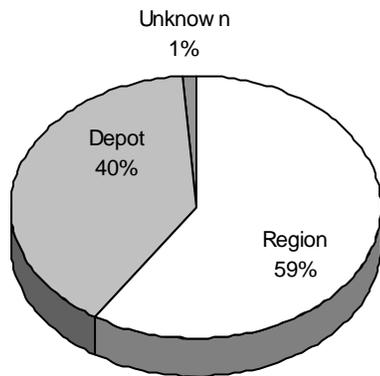


Figure 1. Distribution Sites of Preexposure Prophylaxis, 1999

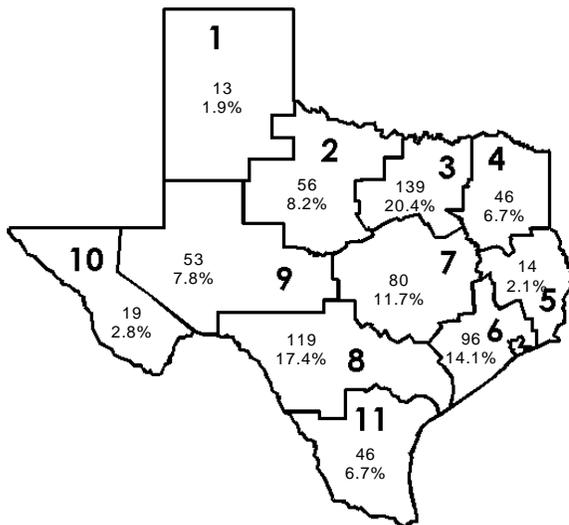


Figure 2. Number of People in Texas Receiving Preexposure Prophylaxis, by Public Health Region, 1999

Reason for Preexposure Vaccination	No. Immunized	%
Animal Control	281	41.2%
Veterinary Personnel	229	33.6%
Unknown	50	7.3%
Wildlife Rehabilitator	31	4.5%
Wildlife Worker	17	2.5%
Student	15	2.2%
Law Enforcement	13	1.9%
Trapper	12	1.8%
Travel	9	1.3%
Maintenance Worker	5	0.7%
Physician	3	0.4%
Hunter	3	0.4%
Animal Worker	3	0.4%
Taxidermist	2	0.3%
Park Ranger	2	0.3%
State Employee	2	0.3%
Biologist	1	0.1%
Construction	1	0.1%
Lab Personnel	1	0.1%
Receptionist	1	0.1%
Rancher	1	0.1%
Total	682	

Table 2. Reasons for Preexposure Prophylaxis, 1999

Postexposure Prophylaxis

Rabies biologicals were dispensed for postexposure prophylaxis to 900 people, of which 363 acquired the biologicals from regional TDH offices while 484 obtained the biologicals from depots. The dispensing site was not listed in 53 reports (Figure 3). People not residing in Texas but receiving biologicals through TDH included 5 from New York and 1 each from Arizona, Brazil, California, Maryland, Ohio, Oklahoma, and Utah. Distribution of the postexposure biologicals based on the Public Health Region in which the patient resided is summarized in Figure 4.

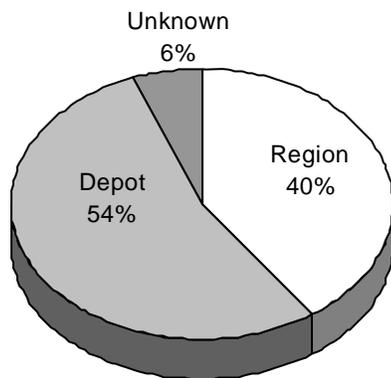


Figure 3. Distribution Sites of Postexposure Prophylaxis, 1999

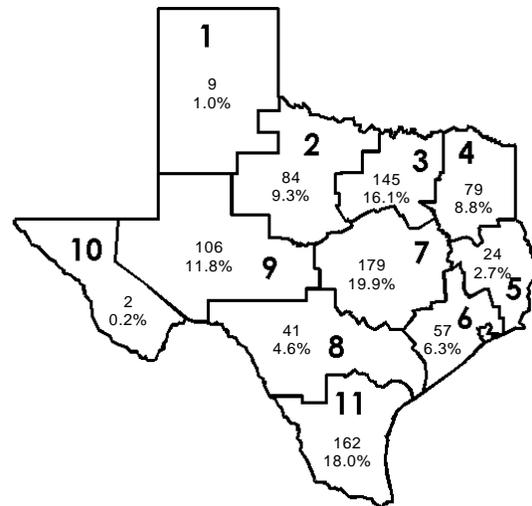


Figure 4. Number of People Receiving Postexposure Prophylaxis, by Public Health Region, 1999

Dogs and cats accounted for 569 (63.2%) reports of rabies exposures resulting in postexposure prophylaxis (Table 3). High risk animals (bats, coyotes, foxes, raccoons, and skunks) accounted for 200 (22.2%) of the exposures and animals classified as low risk for rabies (including rodents, opossums, armadillos, and rabbits) accounted for 16 (1.8%)(Figure 5).

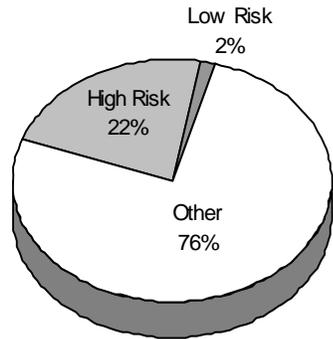


Figure 5. Rabies Risk Classification of Animals Involved in Human Exposure Resulting in Postexposure Prophylaxis, 1999

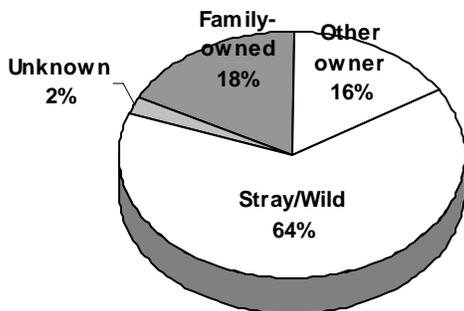


Figure 6. Ownership of Dogs and Cats Involved in Potential Rabies Exposure to People, 1999

Species Associated with Rabies Exposure	No. of Cases	%
DOG	317	35.2%
CAT	252	28.0%
BAT	114	12.7%
HORSE	50	5.6%
RACCOON	42	4.7%
UNKNOWN	28	3.1%
SKUNK	22	2.4%
FOX	17	1.9%
GOAT	15	1.7%
COW	11	1.2%
SQUIRREL	7	0.8%
COYOTE	5	0.6%
OPOSSUM	4	0.4%
RAT	3	0.3%
BOBCAT	2	0.2%
BUFFALO	2	0.2%
MONKEY	2	0.2%
FERAL HOG	1	0.1%
MOUSE	1	0.1%
WOLF	1	0.1%
JAVELINA	1	0.1%
LLAMA	1	0.1%
OCELOT	1	0.1%
RABBIT	1	0.1%
Total	900	

Table 3. Species Associated with Rabies Exposures, 1999

Of the 569 dogs and cats that were involved in the exposure incidents, 366 (64.3%) were stray or wild, 100 (17.6%) were owned by the family of the patient, and 91 (16.0%) were owned by someone other than the patient's family. The information was not contained on the remaining 12 reports (Figure 6). The vaccination status of 378 (66.4%) of the dogs and cats was unknown or not reported. Of the 191 dogs and cats whose rabies vaccination status was known, 167 (87.4%) were not vaccinated against rabies and 24 (12.6%) were vaccinated.

The average age of the person receiving postexposure prophylaxis was 30.0 years (median,28; mode,12). Only 23 (2.6%) of the persons receiving postexposure prophylaxis had previously been immunized against rabies while 215 (23.9%) had not been previously immunized. The reports did not contain information on whether the person had been previously immunized in the remaining 662 cases (73.6%). Most of the persons receiving postexposure prophylaxis reported injuries to multiple anatomic sites (Table 4).

Anatomic Location of Exposure	No. Of People
HAND	483
ARM	136
LEG	120
HEAD	107
UNKNOWN	84
FOOT	23
TORSO	17

Table 4. Anatomic Location of Rabies Exposures, 1999

In 29 (3.2%) cases, postexposure prophylaxis was dispensed while the animal was quarantined. Postexposure prophylaxis was dispensed to 6 people despite a negative rabies test on the animal (Table 5).

Laboratory Test Result	Number	%
Positive	199	84.0%
Unknown	11	4.6%
Destroyed	8	3.4%
Pending	8	3.4%
Negative	6	2.5%
Decomposed	3	1.3%
Inconclusive	2	0.8%
Total	237	

Table 5. Results from Testing Animals That Caused People to Receive Postexposure Prophylaxis, 1999