



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

Rabies Biologicals 1998 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 purposes (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	\$6,060.60 (60)	\$5,091.50 (85)	\$9,776.00 (94)	0	\$6,285.60 (80)	\$27,213.70
PHR 2/3	\$69,393.87 (687)	\$28,153.00 (470)	\$113,464.00 (1091)	\$18,500.00 (37)	\$37,477.89 (477)	\$266,988.76
PHR 4/5	\$42,424.20 (420)	\$8,685.50 (145)	\$68,640.00 (660)	\$5,500.00 (11)	\$26,320.95 (335)	\$151,570.65
PHR 6	\$47,979.75 (475)	\$11,081.50 (185)	\$31,200.00 (300)	\$22,000.00 (44)	\$3,928.50 (50)	\$116,189.75
PHR 7	\$61,616.10 (610)	\$16,173.00 (270)	\$78,000.00 (750)	\$17,000.00 (34)	\$29,856.60 (380)	\$202,645.70
PHR 8	\$4,747.47 (47)	0	\$6,163.00 (59)	0	\$1,571.40 (20)	\$12,454.87
PHR 9/10	\$36,868.65 (365)	\$7,128.10 (119)	\$55,640.00 (535)	\$23,500.00 (47)	\$18,856.80 (240)	\$141,993.55
PHR 11	\$55,555.50 (550)	\$17,550.70 (293)	\$50,960.00 (490)	\$10,000.00 (20)	\$18,071.10 (230)	\$152,137.30
Total	\$324,646.14 (3,214)	\$93,863.30 (1,567)	\$413,816.00 (3979)	\$96,500.00 (193)	\$142,368.84 (1,812)	\$1,071,194.28

Table 1 – Cost and Quantity of Rabies Biological Shipments, by Public Health Region, 1998

Preexposure Prophylaxis

Human Rabies Prophylaxis Surveillance Reports indicate that approximately 567 people received vaccine for preexposure prophylaxis, of which 275 received vaccine as a booster and 292 received the initial vaccination series of three injections. TDH provided preexposure vaccine to 7(1.2%) people who did not reside in Texas: 5 from Oklahoma and 1 each from Michigan and Wisconsin. A total of 362 people acquired preexposure vaccine from regional TDH offices while 201 received the vaccine from depots. The distribution site was not listed on 4 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.

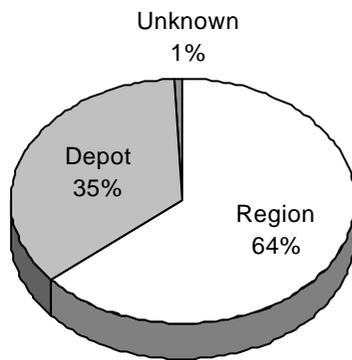


Figure 1. Distribution Sites of Preexposure Prophylaxis, 1998

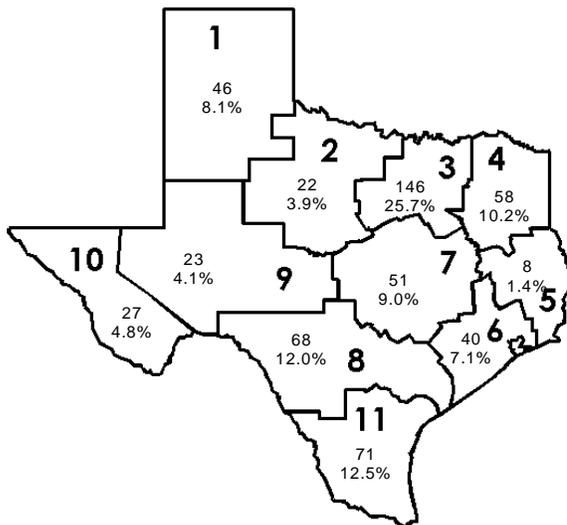


Figure 2. Number of People in Texas Receiving Preexposure Prophylaxis, by Public Health Region, 1998

Reason for Preexposure Vaccination	No. Immunized	%
Veterinary Personnel	227	40.0%
Animal Control	209	36.9%
Unknown	41	7.2%
Student	22	3.9%
Travel	19	3.4%
Wildlife Rehabilitator	16	2.8%
Research	7	1.2%
Wildlife Worker	6	1.1%
Rancher	3	0.5%
Lab personnel	3	0.5%
Maintenance worker	3	0.5%
Pet store	3	0.5%
Trapper	2	0.4%
City employee	2	0.4%
Farmer	1	0.2%
County extension agent	1	0.2%
County employee	1	0.2%
Public works	1	0.2%
Total	567	

Table 2. Reasons for Preexposure Prophylaxis, 1998

Postexposure Prophylaxis

Rabies biologicals were dispensed for postexposure prophylaxis to 659 people, of which 337 acquired the biologicals from regional TDH offices while 316 obtained the biologicals from depots. The dispensing site was not listed in 6 reports (Figure 3). People not residing in Texas but receiving biologicals through TDH included 1 each from Connecticut, Michigan, New Mexico, Ohio, Virginia, and Wisconsin (0.9%). Distribution of the postexposure biologicals based on the Public Health Region in which the patient resided is summarized in Figure 4.

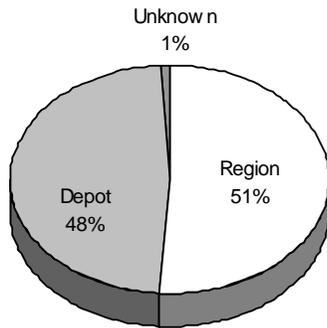


Figure 3. Distribution Sites of Postexposure Prophylaxis, 1998

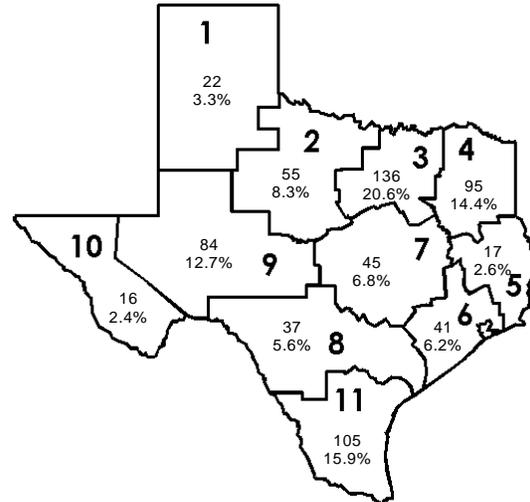


Figure 4. Number of People Receiving Postexposure Prophylaxis, by Public Health Region, 1998

Dogs and cats accounted for 432 (65.6%) reports of rabies exposures resulting in postexposure prophylaxis (Table 3). High risk animals (bats, coyotes, foxes, raccoons, and skunks) accounted for 133 (20.2%) of the exposures and animals classified as low risk for rabies (including rodents, opossums, armadillos, and rabbits) accounted for 5 (0.8%)(Figure 5).

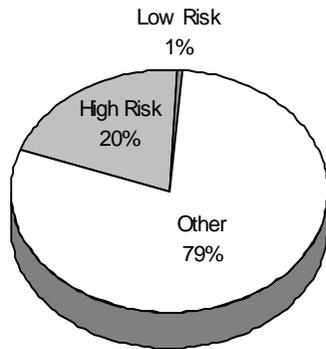


Figure 5. Rabies Risk Classification of Animals Involved in Human Exposure Resulting in Postexposure Prophylaxis, 1998

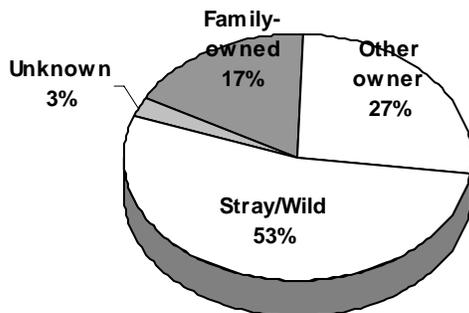


Figure 6. Ownership of Dogs and Cats Involved in Potential Rabies Exposure to People, 1998

Species Associated with Rabies Exposure	No. of Cases	%
DOG	287	43.6%
CAT	145	22.0%
BAT	65	9.9%
RACCOON	36	5.5%
HORSE	35	5.3%
COW	28	4.2%
SKUNK	21	3.2%
GOAT	11	1.7%
UNKNOWN	11	1.7%
FOX	7	1.1%
COYOTE	4	0.6%
MONKEY	2	0.3%
RAT	2	0.3%
SQUIRREL	2	0.3%
ALLIGATOR	1	0.2%
BOBCAT	1	0.2%
RABBIT	1	0.2%
Total	659	

Table 3. Species Associated with Rabies Exposures, 1998

Of the 432 dogs and cats that were involved in the exposure incidents, 231 (53.5%) were stray or wild, 75 (17.4%) were owned by the family of the patient, and 115 (26.6%) were owned by someone other than the patient's family. The information was not contained on the remaining 11 reports (Figure 6). The vaccination status of 260 (60.2%) of the dogs and cats was unknown or not reported. Of the 172 dogs and cats whose rabies vaccination status was known, 160 (93.0%) were not vaccinated against rabies and 12 (7.0%) were vaccinated.

The average age of the person receiving postexposure prophylaxis was 27.9 years (median,24; mode,7). Only 50 (7.6%) of the persons receiving postexposure prophylaxis had previously been immunized against rabies while 580 (88.0%) had not been previously immunized. The reports did not contain information on whether the person had been previously immunized in the remaining 29 cases (4.4%). Most of the persons receiving postexposure prophylaxis reported injuries to multiple anatomic sites (Table 4).

Anatomic Location of Exposure	No. of People
HAND	329
LEG	121
ARM	78
UNKNOWN	75
HEAD	69
TORSO	41
FOOT	8

Table 4. Anatomic Location of Rabies Exposures, 1998

In 27 (4.1%) cases, postexposure prophylaxis was dispensed while the animal was quarantined. Postexposure prophylaxis was dispensed to 5 people despite a negative rabies test on the animal (Table 5).

Laboratory Test Result	Number	%
Positive	188	87.0%
Decomposed	8	3.7%
Unknown	6	2.8%
Negative	5	2.3%
Inconclusive	5	2.3%
Pending	4	1.9%
Total	216	

Table 5. Results from Testing Animals That Caused People to Receive Postexposure Prophylaxis, 1998