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## Rabies Biologicals 2002 Surveillance Summary

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The Texas Health and Safety Code (§826.025) mandates that the 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. During 2002, TDH also supplied vaccine for preexposure prophylaxis of people but did not do so without financial reimbursement.

Regional TDH offices are required to store and distribute the biologicals. In an effort to make the biologicals readily available to Texas residents throughout the state, regional offices may contract with local health departments and hospitals to serve as depots for storing and distributing biologicals. Surveillance data, including the demographic information on who received the biologicals and the reasons the biologicals were distributed, 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 surveillance and for financial accounting (attached).

Some private sources (such as hospitals) directly provide rabies biologicals to patients 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 distributed in the state of Texas; therefore, the data presented should reflect overall trends.

### **Preexposure Rabies Prophylaxis**

Rabies preexposure vaccination is recommended for people who are at risk of an inapparent exposure to rabies, such as laboratory workers, veterinarians, animal control personnel, wildlife workers, and spelunkers. Human Rabies Prophylaxis Surveillance Reports indicate that approximately 485 people received vaccine for preexposure prophylaxis, of which 127 received vaccine as a booster and 358 received the initial vaccination series of three injections.

A total of 296 people acquired preexposure vaccine from regional TDH offices while 189 received the vaccine from depots (Figure 1). Effective January 1, 2003, TDH no longer provides preexposure rabies vaccine.

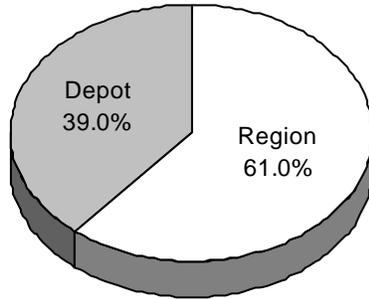


Figure 1. Distribution Sites of Preexposure Prophylaxis, 2002

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 1.

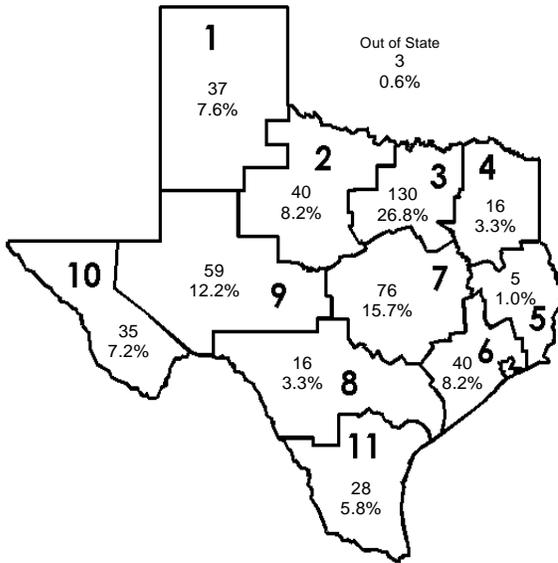


Figure 2. Number of People Receiving Preexposure Prophylaxis, by Public Health Region, 2002

Reason for Preexposure Vaccination	No. Immunized	%
Animal Control	199	41.0%
Unknown	116	23.9%
Veterinary personnel	97	20.0%
Wildlife Services	17	3.5%
Law officer	14	2.9%
Rehabilitator	11	2.3%
Travel	10	2.1%
Student	7	1.4%
Trapper	6	1.2%
Kennel attendant	3	0.6%
Bat researchers	2	0.4%
Rancher	1	0.2%
Lab worker	1	0.2%
Bat excluder	1	0.2%
<b>Total</b>	<b>485</b>	<b>100.0%</b>

Table 1. Reasons for Preexposure Prophylaxis, 2002

## Postexposure Rabies Prophylaxis

Rabies biologicals were distributed for postexposure prophylaxis to 1,006 people, of which 321 acquired the biologicals from regional TDH offices while 681 obtained the biologicals from depots. The distributing site was not listed in 4 reports (Figure 3). There were 7 (0.7%) people not residing in Texas who received biologicals through TDH, including 1 each from Florida, Michigan, New Jersey, Ohio, and South Carolina; and 2 from California. Distribution of the postexposure biologicals based on the Public Health Region in which the patient resided is summarized in Figure 4.

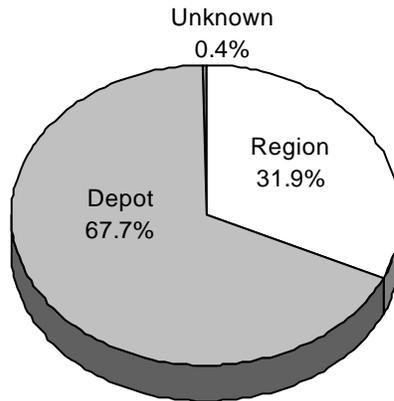


Figure 3. Distribution Sites of Postexposure Prophylaxis, 2002

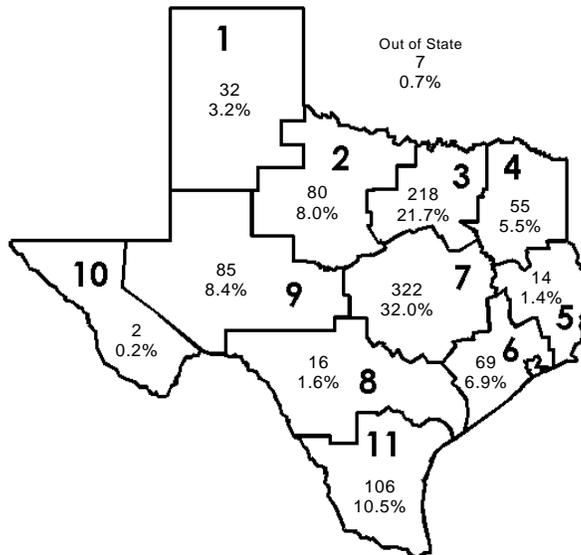


Figure 4. Number of People Receiving Postexposure Prophylaxis, by Public Health Region, 2002

Dogs and cats accounted for 667 (66.2%) of the reports of rabies exposures resulting in postexposure prophylaxis (Table 2). Animals designated as being of high risk for transmitting rabies (bats, coyotes, foxes, raccoons, and skunks) accounted for 241 (24.0%) of the exposures. Mammals classified as low risk for rabies (including rodents and opossums) accounted for 5 (0.5%)(Figure 5).

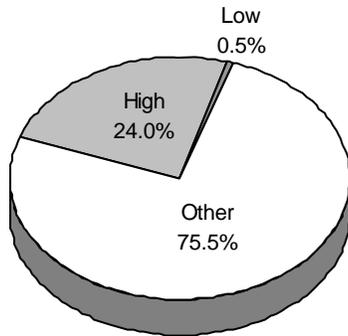


Figure 5. Rabies Risk Classification of Animals Involved in Human Exposure Resulting in Postexposure Prophylaxis, 2002

Species Associated with Rabies Exposure	No. of Cases	%
Dog	367	36.5%
Cat	300	29.8%
Bat	128	12.7%
Raccoon	64	6.4%
Cattle	45	4.5%
Skunk	39	3.9%
Goat	19	1.9%
Unknown	11	1.1%
Fox	8	0.8%
Horse	7	0.7%
Primate	6	0.6%
Opossum	4	0.4%
Bobcat	3	0.3%
Coyote	2	0.2%
Javelina	1	0.1%
Ferret	1	0.1%
Rat	1	0.1%
<b>Total</b>	<b>1006</b>	<b>100.0%</b>

Table 2. Species Associated with Rabies Exposures, 2002

Of the 667 exposure incidents that involved dogs and cats, 437 (65.5%) of the animals were stray or wild, 89 (13.3%) were owned by the family of the patient, and 108 (16.2%) were owned by someone other than the patient's family. This information was not contained in the remaining 33 (4.9%) reports (Figure 6). The vaccination status of 457 (68.5%) of the dogs and cats was unknown or not reported. Of the dogs and cats whose rabies vaccination status was reported, 179 (85.2%) were not vaccinated against rabies and 31 (14.8%) were vaccinated.

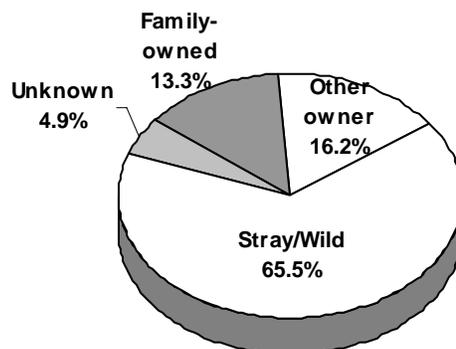


Figure 6. Ownership of Dogs and Cats Involved in Potential Rabies Exposure to People, 2002

The average age of the person receiving postexposure prophylaxis was 30.0 years (median, 29; mode, 15). Many of the persons receiving postexposure prophylaxis reported injuries to multiple anatomic sites (Table 3).

<b>Anatomic Location of Exposure</b>	<b>Number of People</b>
Hand	522
Leg	178
Arm	175
Unknown	94
Head	12
Foot	25
Torso	31
Other	192

*Table 3. Anatomic Location of Rabies Exposures, 2002*

In 25 (3.7%) cases, biologicals for postexposure prophylaxis were distributed while the animal was quarantined for rabies observation. Biologicals for postexposure prophylaxis were dispensed to 27 people despite a negative rabies test on the animal (Table 4). In some cases treatment was initiated pending the outcome of the rabies testing and in others, treatment was continued due to uncertainty about the animal being tested.

<b>Laboratory Test Result</b>	<b>Number</b>	<b>%</b>
Positive	200	69.7%
Pending	31	10.8%
Negative	27	9.4%
Unknown	14	4.9%
Decomposed	9	3.1%
Inconclusive	4	1.4%
Destroyed	2	0.7%
<b>Total</b>	<b>287</b>	<b>100.0%</b>

*Table 4. Results from Testing Animals That Caused People to Receive Postexposure Prophylaxis, 2002*