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Zoonosis Control Branch
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DSHS-Supplied Rabies Biologicals 2006 Surveillance Summary

REVISED 10-22-09

Texas Health and Safety Code §826.025 allows the Texas Department of State Health Services (DSHS) to supply rabies biologicals (vaccine and immune globulin) for postexposure prophylaxis (PEP) in persons who have been exposed to rabid, or potentially rabid, animals. Although DSHS is supposed to be reimbursed for the cost of these biologicals, no one who has a valid exposure is denied access to the products because of their inability to pay.

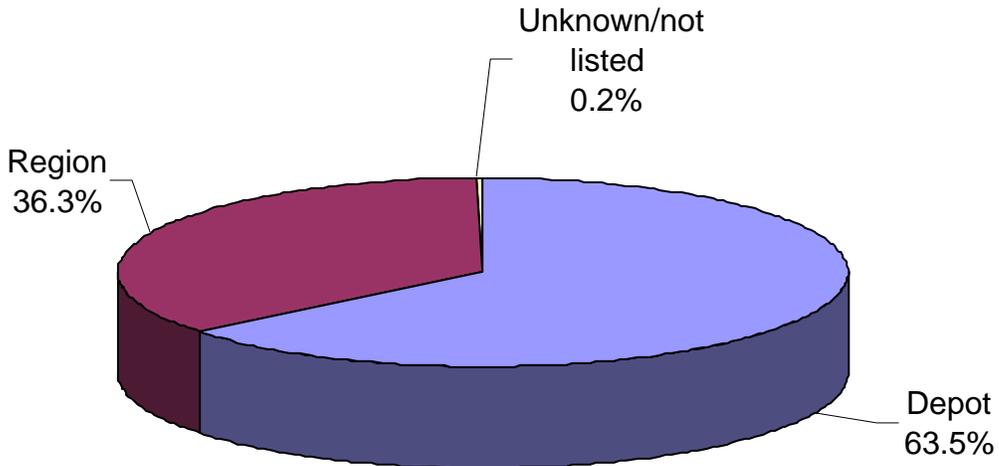
DSHS Health Service Region (HSR) offices may store and distribute the biologicals. In an effort to make the biologicals readily available to Texas residents throughout the state, some regional offices partner with local health departments and hospitals to serve as depots for storing and distributing biologicals. Surveillance data, including the demographic information on who received the biologicals and the reasons the biologicals were distributed, is maintained by DSHS (mandated by §97.123, Texas Administrative Code, "Provision of Anti-Rabies Biologicals").

Some private sources (such as hospitals and healthcare systems) directly provide rabies biologicals to patients and do not partner with DSHS. **These sources do not supply surveillance information to DSHS and are not included in this summary.** DSHS supplies most of the rabies biologicals distributed for PEP in the state of Texas; therefore, the data presented in this report should reflect overall trends.

Postexposure Rabies Prophylaxis

During 2006, rabies biologicals were distributed for PEP to 1,507 people, of whom 547 (36.3%) acquired the biologicals from regional DSHS offices and 957 (63.5%) from depots. The distributing site was not listed in 3 (0.2%) cases (Figure 1).

Figure 1. Distribution Sites for Rabies Biologicals, 2006



Rabies biologicals were distributed to 1,506 (99.9%) Texas residents and 1 (0.07%) person residing in Oklahoma. Distribution of rabies biologicals based on the HSR in which the patient resided is summarized in Figure 2.

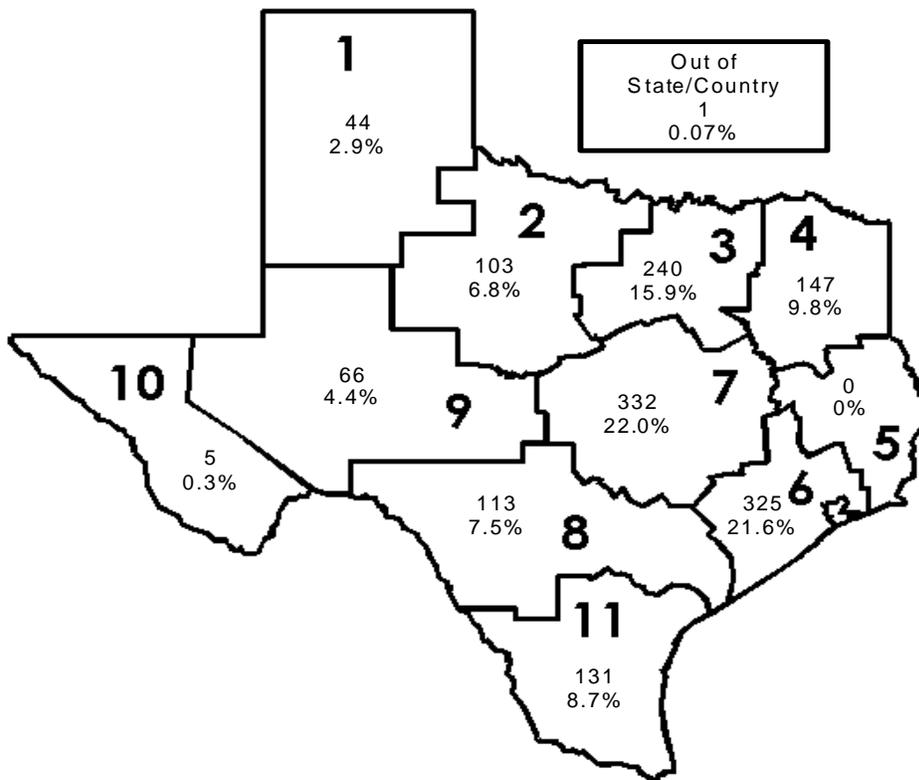


Figure 2. Number of People Receiving Postexposure Prophylaxis, by Health Service Region of Patient Residence, 2006

Dogs and cats accounted for 753 (50.0%) of the reports of potential rabies exposures resulting in PEP (Table 1). Animals designated as being of high risk for transmitting rabies (bats, coyotes, foxes, raccoons, and skunks) accounted for 597 (39.6%) of the exposures. Animals classified as low risk for rabies (including rodents, rabbits, and opossums) accounted for 13 (0.9%) exposures (Figure 3). The type of animal was unknown or not listed in 69 (4.6%) cases. Routes of exposures are shown in Figure 4.

Species Associated with Exposure Resulting in PEP	Number	%
Dog	507	33.6%
Bat	478	31.7%
Cat	246	16.3%
Raccoon	77	5.1%
Unknown/Not Listed	69	4.6%
Horse	39	2.6%
Skunk	27	1.8%
Goat	11	0.7%
Cattle	10	0.7%
Fox	9	0.6%
Squirrel	7	0.5%
Bobcat	6	0.4%
Coyote	6	0.4%
Primate	5	0.3%
Opossum	3	0.2%
Javelina	2	0.1%
Porcupine	2	0.1%
Prairie Dog	1	<0.1%
Rat	1	<0.1%
Vole	1	<0.1%
TOTAL	1,507	100%

Table 1. Species Associated with Rabies PEP, 2006

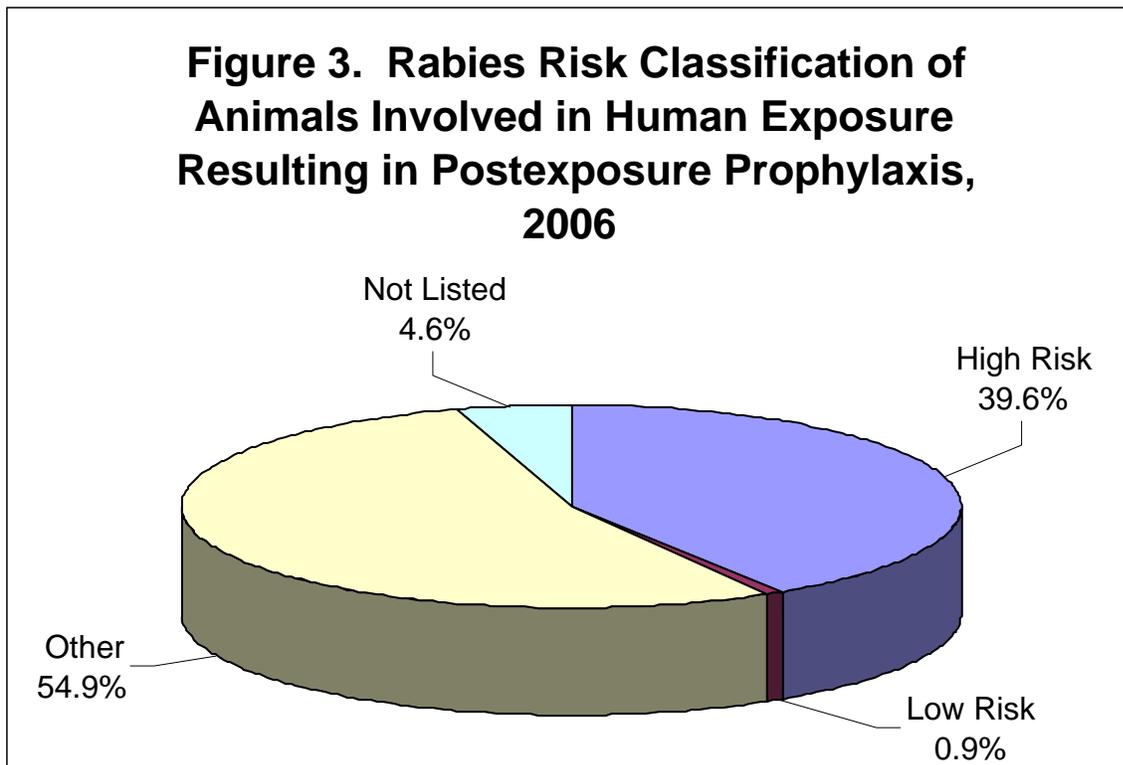
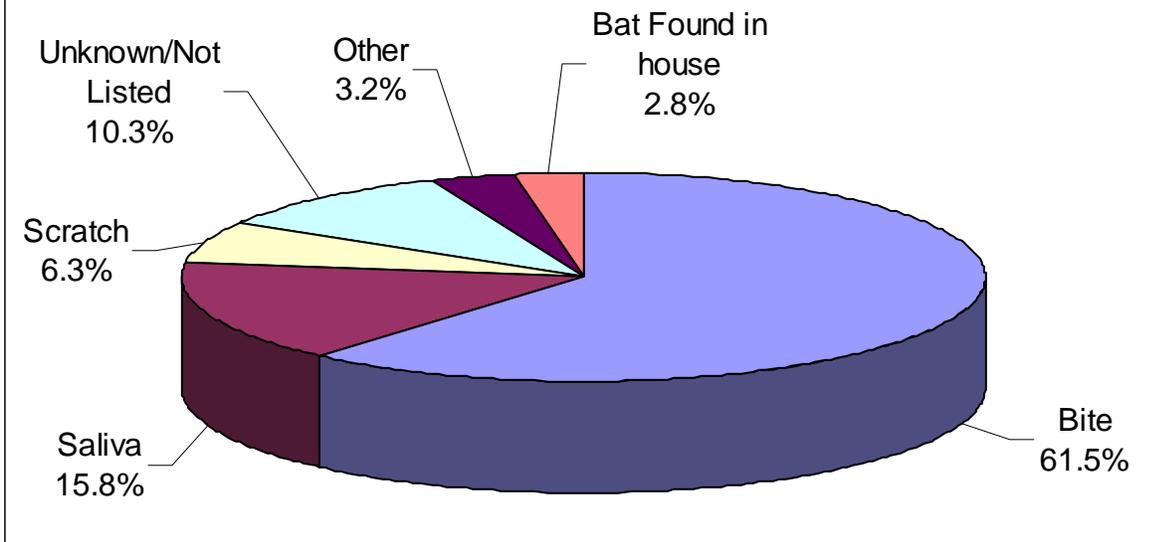
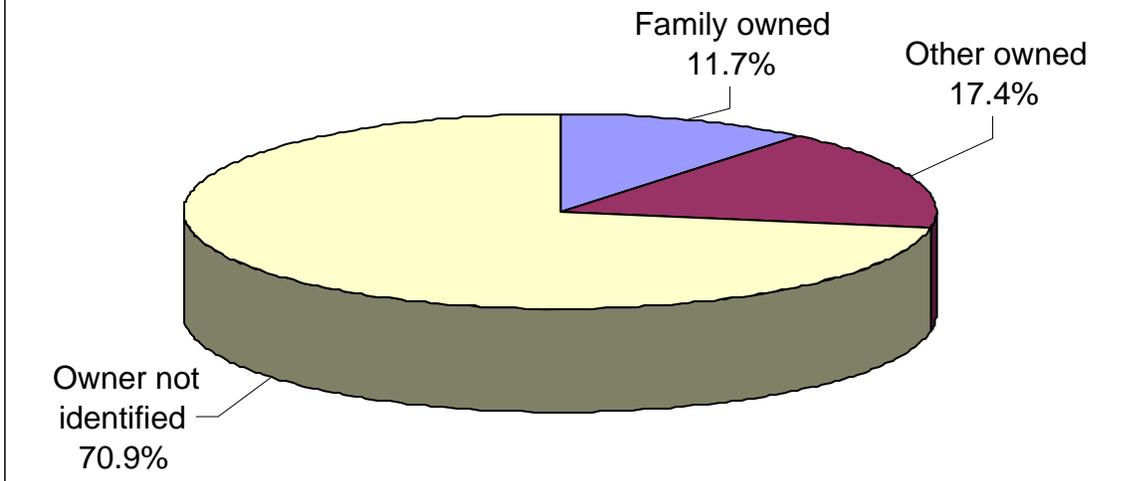


Figure 4. Primary Route of Exposure for Persons Receiving Postexposure Prophylaxis, 2006



Of the 753 exposure incidents that involved dogs and cats, 88 (11.7%) were owned by the patient's family, 131 (17.4%) were owned by someone other than the patient's family, and 534 (70.9%) were listed as either a stray or had no ownership information identified (Figure 5). Of the 164 dogs and cats whose rabies vaccination status was reported, 146 (89.0%) were not currently vaccinated against rabies and 18 (11.0%) were currently vaccinated. The vaccination status of 589 (78.2%) of the dogs and cats was either reported as unknown or not reported.

Figure 5. Ownership of Dogs and Cats Involved in Potential Rabies Exposure to Humans, 2006



Of the 1,507 persons receiving PEP for whom age was reported, the average age was 32.8 years (median, 31 years). Of the 1,496 persons for whom sex was reported, 763 (51.0%) were male and 733 (49.0%) were female. The sex of the recipient was not reported in 11 cases.

The database contained definitive history of the rabies vaccination status for 74 persons (4.9% of persons receiving PEP). Of those, 43 (58.1%) had previously been immunized against rabies while 31 (41.9%) had not been previously immunized. The database did not contain information on the vaccination status of the recipient in 1,433 cases (95.1% of persons receiving PEP). The primary anatomic sites of exposure are listed in Table 2.

Anatomic Location of Exposure	Number of People
Hand	502
Leg	247
Unknown/Not Listed	244
Head/Neck	212
Arm	212
Torso	45
Foot	43
Other	2

Table 2. Primary Anatomic Location of Rabies Exposures, 2006

The animal causing the exposure was tested for rabies in a public health laboratory in 331 cases (22.0% of exposures); the animal was not available for testing in 1,107 cases (73.5% of exposures); and the testing status was not listed in 34 cases (2.3% of exposures). Biologicals were distributed to 35 people (2.3% of persons receiving PEP) while the dog or cat causing the exposure was being quarantined for rabies observation. Biologicals were dispensed to 26 people (1.7% of persons receiving PEP) while laboratory results were pending. Biologicals were dispensed to 11 people (0.7% of persons receiving PEP) despite a negative rabies test on the animal (Table 3).

Laboratory Testing Status	Number	%	
Animal Not Tested (Quarantined)	35	2.3%	
Animal Not Tested (Unavailable)	1,107	73.5%	
Testing Status Not Listed	34	2.3%	
Tested	331	22.0%	
	Test Result	Number	% of Tested Specimens
	Positive	252	76.1%
	Pending (at the time of distributing the PEP biologicals)	26	7.9%
	Decomposed	14	4.2%
	Destroyed	13	3.9%
	Negative	11	3.3%
	Inconclusive	11	3.3%
	Result Not Listed	4	1.2%

Table 3. Rabies Testing Status and Test Results from Animals That Caused People to Receive Postexposure Prophylaxis, 2006