

Animal Bites and Rabies Exposure Events in Ohio, 2013



Each year since 1990, the Ohio Department of Health (ODH) has distributed a survey to all of Ohio's local health departments (LHDs) to gather information pertaining to potential rabies exposure events reported in the state. A human rabies exposure occurs when a human is bitten by a wild or domestic mammal (i.e., bite exposure) or when there is saliva contact with broken skin or mucous membranes (i.e., non-bite exposure). Non-bite exposures also occur when a bat is found in a room with a young child, with someone who is sleeping or with someone with a sensory or mental impairment. Non-human rabies exposures occur when a domestic mammal is exposed to a suspected rabid mammal or when a mammal is investigated for showing signs compatible with rabies. There were 124 responses to the survey representing 100% of the LHDs (as some health jurisdictions contract with others to report data).

A total of 21,458 potential rabies exposure events were reported to LHDs in 2013 (Table 1). This is essentially unchanged from 2012 (21,425). Of these events, 20,077 (93.5%) involved bites to humans, 985 (4.6%) involved human non-bite exposures and 409 (1.9%) were non-human exposure events. Dogs accounted for the majority of events (75.3%) followed by cats (17.7%) and bats (4.1%). Domestic animals (i.e., dogs, cats, ferrets, livestock, rodents, rabbits and other domestic mammals) accounted for 20,128 events (93.8%). Wild mammals (i.e., bats, raccoons, skunks, wild rabbits, wild rodents and other wild mammals) were involved in 1,330 events (6.2%). The distribution of events by species in 2013 was very similar to that reported in 2012. A summary of individual reports by jurisdiction and mammal category can be found in Appendix A.

In 2013, LHDs reported 21,718 individuals experienced bite or non-bite rabies exposures. This represents a 1% increase from 2012 (21,518). In 2012, LHDs reported 509 exposed individuals started rabies post-exposure prophylaxis (PEP). This is an 11% increase over 2012 when 458 individuals were reported to have received PEP. Rabies PEP is not reportable in Ohio so this total represents only a portion of the true number of individuals receiving treatment after rabies exposure. Bat (35.2%), dog (31.4%), cat (17.7%) and raccoon (9.0%) exposures accounted for the majority of reported instances of rabies PEP administration.

Although the total number of rabies exposure events reported by LHDs for 2013 was very similar to the number reported in 2012, there was a shift in the species involved in the exposure events. From 2012 to 2013, there was a 4.4% increase in the number of events involving cats, an 18.8% increase in the number of events involving bats and a 25.3% decrease in the number of events involving raccoons. Also of note, the number of events involving other domestic animals (not dogs, cats, ferrets, livestock or domestic rabbits/rodents) increased from 46 in 2012 to 78 in 2013. This may be due to the increasing popularity of exotic pets such as hedgehogs.

In 2013, there were 64 confirmed animal cases of rabies in Ohio. Fifty-four of these were bats, seven were raccoons and three were cats. The rabid bats were widely distributed throughout the state. The positive raccoons were from Trumbull and Mahoning Counties in Northeast Ohio and the positive cats were all from Trumbull County. The raccoons and cats were all infected with raccoon rabies variant.

Table 1: Reported Mammalian Bites for Ohio by Species, 2013.

Species	Bite Exposure Events	Non-Bites Exposure Events	Other Exposure Events	Total Exposure Events	Total Humans Exposed	Total Humans Starting PET
Dog	15,877	229	54	16,160	16,311	160
Cat	3,625	168	23	3,806	3,891	90
Ferret	10	0	0	10	10	1
Livestock	24	9	5	38	46	0
Rodent/Rabbit (Domestic)	33	1	2	36	34	0
Other Domestic	70	7	2	78	99	0
Rodent/Rabbit (Wild)	99	6	6	111	110	10
Raccoon	106	45	68	219	174	46
Skunk	5	3	16	24	9	1
Bat	164	508	220	890	958	179
Other Wild	64	9	13	86	76	22
Grand Total	20,077	985	409	21,458	21,718	509

Appendix A: Reported Rabies Exposure Events by Species and Jurisdiction, 2013.

Local Health Department (County/City)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Other Wild	Total
Adams	38	10	0	0	0	0	2	1	0	2	0	53
Allen	196	50	0	4	0	2	0	0	0	1	0	253
Ashland	78	13	1	3	1	0	0	2	0	4	0	102
Ashtabula	146	47	0	0	0	2	2	0	1	9	0	207
Ashtabula City	67	10	0	0	0	0	0	1	0	1	0	79
Conneaut City	38	9	1	0	0	0	0	1	0	2	0	51
Athens	61	16	0	0	0	0	0	1	0	2	0	80
Auglaize	60	19	0	0	0	0	0	0	0	0	0	79
Belmont	148	50	0	0	0	0	3	0	4	9	0	214
Brown	83	15	0	0	0	0	0	0	0	3	1	102
Butler	216	61	0	3	3	6	7	2	0	10	0	308
Middletown City	88	3	0	0	0	0	0	0	0	3	0	94
Hamilton City	124	26	0	0	0	0	0	0	0	1	0	151
Carroll	49	15	0	1	0	0	0	0	0	0	1	66
Champaign	70	12	0	0	0	0	1	0	0	9	1	93
Clark	205	39	0	1	0	0	2	10	0	52	2	311

Local Health Department (County/City)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Other Wild	Total
Clermont	240	64	0	0	1	1	0	3	0	5	0	314
Clinton	81	18	0	0	0	0	0	0	0	2	1	102
Columbiana	126	27	0	1	0	0	5	4	0	3	2	168
East Liverpool City	30	8	0	0	0	0	0	0	0	1	0	39
Salem City	29	7	0	0	2	0	1	1	0	2	0	42
Coshocton	44	9	0	0	0	0	0	1	0	1	3	58
Coshocton City	38	8	0	0	0	0	0	1	0	0	0	47
Crawford	59	12	0	0	1	0	1	0	0	5	0	78
Galion City	37	10	0	0	0	0	0	0	1	2	0	50
Cuyahoga	717	235	1	0	3	6	4	12	3	38	6	1025
Cleveland City	637	91	0	0	0	2	1	0	1	0	1	733
Shaker Heights City	15	2	0	0	0	0	0	0	0	21	0	38
Darke	69	24	0	0	0	0	1	2	0	1	1	98
Defiance	69	26	0	0	0	0	2	0	0	2	1	100
Delaware	179	44	0	0	0	2	1	2	0	15	4	247
Erie	157	34	1	0	1	1	1	2	0	6	2	205
Fairfield	202	39	0	1	2	1	0	3	0	3	1	252
Fayette	52	9	0	0	0	1	0	0	0	2	0	64
Franklin	536	128	2	0	1	1	2	3	1	2	3	679
Columbus City	1049	183	0	0	0	0	0	8	2	32	1	1275
Fulton	61	26	0	0	0	0	1	1	0	4	0	93
Gallia	53	9	0	0	0	1	1	0	0	1	0	65
Geauga	108	65	0	1	0	0	0	3	0	3	3	183
Greene	193	46	0	0	0	0	1	2	0	33	0	275
Guernsey	101	24	0	1	0	0	1	1	0	12	0	140
Hamilton	566	110	0	0	1	2	1	12	0	44	0	736
Cincinnati City	429	77	0	0	0	1	6	4	0	62	2	581
Norwood City	29	6	0	0	0	0	0	0	0	2	0	37
Sharonville City	9	0	0	0	0	0	0	0	0	0	1	10
Springdale City	7	1	0	0	0	0	0	0	0	1	0	9
Hancock	47	11	0	0	0	1	0	0	0	1	3	63
Findlay City	74	18	0	0	0	1	1	0	0	3	0	97
Hardin	49	10	0	0	0	0	1	1	1	3	0	65
Harrison	20	4	0	0	0	0	0	0	0	2	0	26

Local Health Department (County/City)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Other Wild	Total
Henry	57	14	0	0	0	0	0	1	0	1	1	74
Highland	81	18	0	0	0	0	0	2	0	1	2	104
Hocking	45	17	0	0	0	0	2	0	0	0	0	64
Holmes	23	8	0	2	0	3	0	2	0	3	1	42
Huron	83	23	0	0	0	0	1	3	0	1	0	111
Jackson	39	7	0	0	0	1	0	0	0	2	1	50
Jefferson	67	11	0	0	0	4	3	0	0	2	0	87
Steubenville City	42	11	0	0	0	0	0	1	0	0	0	54
Knox	104	32	0	0	0	0	3	4	1	14	1	159
Lake	391	161	0	3	1	3	13	17	4	32	4	629
Lawrence	88	16	1	0	0	0	3	1	0	1	0	110
Ironton City	24	5	0	0	0	0	0	0	0	0	0	29
Licking	258	106	0	0	0	2	0	3	0	4	1	374
Logan	70	13	0	0	0	0	0	0	0	2	0	85
Lorain	141	31	0	0	0	1	0	0	0	2	1	176
Elyria City	69	10	0	0	0	0	0	1	0	4	1	85
Lorain City	159	32	0	0	0	1	1	2	1	3	1	200
Lucas	574	108	0	1	2	1	4	5	0	1	0	696
Madison	46	14	0	0	0	0	0	0	0	3	0	63
Mahoning	196	30	0	0	0	6	2	12	1	11	3	261
Youngstown City	89	8	0	0	1	0	2	5	0	5	0	110
Marion	107	14	0	0	0	1	0	0	0	3	0	125
Medina	277	79	0	0	0	0	3	6	1	135	0	501
Meigs	26	13	0	0	0	0	0	3	0	0	0	44
Mercer	56	11	0	1	0	0	1	0	0	1	1	71
Miami	105	29	0	1	0	1	0	1	0	2	0	139
Piqua City	41	5	0	0	1	0	0	0	0	1	0	48
Monroe	15	4	0	0	0	0	0	0	0	0	0	19
Montgomery - Dayton	739	131	1	0	0	0	1	4	0	29	1	906
Morgan	16	2	0	0	0	0	0	0	0	1	0	19
Morrow	61	17	0	0	0	0	0	0	0	1	0	79
Muskingum	209	40	0	0	0	0	0	0	0	6	2	257
Noble	23	5	0	0	0	0	0	0	0	2	0	30
Ottawa	68	19	0	0	0	1	0	0	0	2	2	92

Local Health Department (County/City)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Other Wild	Total
Paulding	30	8	0	0	0	0	0	0	0	0	0	39
Perry	56	11	0	0	0	0	1	0	0	1	0	69
Pickaway	73	6	0	0	0	1	0	1	0	3	0	84
Pike	44	8	0	1	1	1	0	1	0	1	1	58
Portage	165	58	0	1	0	0	0	3	0	15	2	244
Kent City	21	6	0	0	0	0	0	0	0	5	0	32
Ravenna City	9	3	0	0	0	0	0	0	0	0	0	12
Preble	46	6	0	1	0	0	0	1	0	0	0	54
Putnam	13	2	0	1	0	0	0	0	0	0	0	16
Richland	201	52	0	0	2	0	1	9	2	11	1	279
Shelby City	17	3	0	0	0	1	1	0	0	0	0	22
Ross	156	20	0	0	1	0	0	1	0	15	0	193
Sandusky	99	23	0	0	0	0	0	1	0	2	0	125
Scioto	113	24	0	0	1	3	0	0	0	0	2	143
Portsmouth City	67	10	0	0	0	0	0	2	0	2	0	81
Seneca	101	15	0	0	0	1	1	3	0	0	0	121
Shelby	83	9	0	0	0	0	1	0	0	1	0	94
Stark	418	152	0	1	2	0	3	10	2	17	2	607
Alliance City	68	13	0	0	0	0	0	0	0	1	0	82
Canton City	279	47	1	0	0	2	6	0	0	4	1	340
Massillon City	85	32	0	0	1	0	1	0	0	0	0	119
Summit	654	154	0	0	2	8	0	7	1	36	5	867
Trumbull	136	38	0	0	0	0	4	9	1	6	1	195
Girard City	9	0	0	0	0	0	0	0	0	0	0	9
Niles City	24	5	0	0	1	0	0	0	0	2	0	32
Warren City	42	14	0	0	1	0	0	0	0	0	0	57
Tuscarawas	119	37	0	8	0	0	3	4	0	7	0	178
New Philadelphia City	24	15	0	0	1	0	1	0	0	10	0	51
Union	62	23	0	0	0	1	0	1	0	6	0	93
Van Wert	27	14	0	0	0	0	0	0	0	0	0	41
Vinton	20	1	0	0	0	0	0	0	0	0	0	21
Warren	207	32	0	0	1	1	0	2	0	6	2	251
Washington	72	17	0	0	0	0	0	0	0	0	1	90
Belpre City	13	2	0	0	0	0	0	0	0	0	0	15

Local Health Department (County/City)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Oth er Wild	Total
Marietta City	14	9	0	0	0	0	0	0	0	10	0	33
Wayne	172	62	1	1	0	0	0	0	0	10	1	247
Williams	56	15	0	0	0	0	0	2	0	9	0	82
Wood	151	28	0	0	1	3	0	1	0	10	4	198
Wyandot	44	8	0	0	0	0	0	0	0	3	0	55
Total	16,160	3,806	10	38	36	78	111	219	24	890	86	21,458