



# Animal Bites and Rabies Exposure Events in Ohio, 2012



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 120 responses to the survey representing 97.6 percent of the LHDs as some health jurisdictions contract with others to report data. Harrison, Morgan and Putnam counties did not report data for 2012.

A total of 21,357 potential rabies exposure events were reported to LHDs in 2012 (Table 1). This is a 6.4% increase from 2011 for counties reporting in 2012. Of these events, 20,105 (94.1%) involved bites to humans, 793 (3.7%) involved human non-bite exposures and 459 (2.1%) were non-human exposure events. Dogs accounted for the majority of events (76.2%) followed by cats (17.1%) and bats (3.5%). Domestic animals (i.e. dogs, cats, ferrets, livestock, rodents, rabbits and other domestic mammals) accounted for 20,093 events (94%). Wild mammals (i.e. bats, raccoons, skunks, wild rabbits, wild rodents and other wild mammals) were involved in 1,264 events (6%). The distribution of events by species in 2012 was very similar to that reported in 2011. A summary of individual reports by jurisdiction and mammal category can be found in Appendix 1.

In 2012, LHDs reported 21,450 individuals experienced bite or non-bite rabies exposures. This is an increase of 5.7% from 2011. LHDs reported 447 exposed individuals in 2012 started rabies post-exposure prophylaxis (PEP). This is essentially unchanged for 2011 when 449 individuals were reported to have received PEP. Rabies PEP is not reportable in the state of Ohio so this total represents only a portion of the true number of individuals receiving treatment after rabies exposure. Dog (33.3%), bat (31.1%), cat (17.4%) and raccoon (12.8%) exposures accounted for the majority of reported instances of rabies PEP administration.

The approximately 6% increase in both rabies exposure events and the number of individuals potentially exposed to rabies in 2012 when compared to 2011 is largely due to increases in the number of events involving bats (21% increase), raccoons (13.1% increase), dogs (9.2% increase), and cats (8.8% increase). In addition, the number of events involving domestic rodents and rabbits increased by 60% - from 40 in 2011 to 64 in 2012. Skunk exposure events decreased 53.1% with 47 events in 2011 and only 22 events in 2012. The number of skunk exposure events in 2012 was similar to the number seen in 2010 (28 events). The increase in reported skunk exposure events in 2011 mirrored an increase in rabid skunks identified in 2011. Eight rabid skunks were identified in Ohio in 2011 as compared to three in 2010 and none in 2012.

In 2012, there were 40 confirmed animal cases of rabies in Ohio. Thirty-eight of these were bats and two were raccoons. The rabid bats were widely distributed throughout the state. The two positive raccoons were from Trumbull and Mahoning counties in Northeast Ohio.

Table 1: Reported Mammalian Bites for Ohio by Species, 2012.

Mammal Categories	Reports Investigated				Humans Exposed	Humans Starting PEP
	Human Bite	Human Non Bite	Non-Human Exposure	Total		
Dog	16030	197	62	16289	16478	149
Cat	3436	169	42	3647	3670	78
Ferret	8	0	0	8	8	0
Livestock	32	2	5	39	34	0
Rodent-Rabbit (Domestic)	61	3	0	64	64	0
Other Domestic Mammals	45	0	1	46	46	1
Rodent-Rabbit (Wild)	89	2	6	97	91	8
Raccoon	160	43	90	293	223	57
Skunk	4	5	13	22	9	1
Bat	156	367	226	749	737	139
Other Wild Mammals	84	5	14	103	90	14
<b>Total</b>	<b>20105</b>	<b>793</b>	<b>459</b>	<b>21357</b>	<b>21450</b>	<b>447</b>

Appendix A: Reported Rabies Exposure Events by Species and Jurisdiction, 2012.

Local Health Department (County)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Other Wild	Total
Adams	40	11	0	0	0	0	1	1	0	0	0	53
Allen	206	34	0	1	0	0	1	4	0	3	0	249
Ashland	70	11	0	0	0	0	2	3	0	4	0	90
Ashtabula	139	55	0	2	1	0	2	13	1	20	2	235
Athens	81	20	0	0	0	0	0	3	0	5	0	109
Auglaize	68	15	0	0	0	1	0	1	0	1	0	86
Belmont	134	46	0	0	0	0	2	2	0	14	1	199
Brown	78	20	0	0	0	0	0	5	0	3	0	106
Butler	248	46	1	4	1	2	4	4	0	5	0	315
Carroll	58	9	0	0	0	0	0	2	0	0	1	70
Champaign	59	16	0	0	0	0	0	2	0	3	0	80
Clark	248	63	0	1	0	0	3	14	0	86	3	418
Clermont	282	40	2	0	0	0	0	4	0	0	0	328
Clinton	64	6	0	0	0	0	0	3	0	6	2	81
Columbiana	118	39	0	0	0	1	1	8	0	6	0	173
Coshocton	62	16	0	1	1	0	0	0	1	2	1	84
Crawford	65	9	0	0	0	0	1	0	0	1	0	76
Cuyahoga	747	246	0	0	1	8	2	11	1	40	11	1,067
Darke	99	20	0	0	0	0	0	0	0	2	0	121
Defiance	64	15	0	1	2	2	0	4	0	2	1	91

Local Health Department (County)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Other Wild	Total
Delaware	137	32	0	0	1	0	0	2	0	21	3	196
Erie	114	33	0	0	1	0	0	10	1	6	1	166
Fairfield	171	57	0	0	0	1	3	4	0	4	1	241
Fayette	49	16	0	0	0	0	0	2	0	1	0	68
Franklin	473	100	1	0	0	3	0	1	0	6	7	591
Fulton	65	18	0	0	0	0	1	0	0	6	0	90
Gallia	58	22	0	0	0	1	0	1	0	0	2	84
Geauga	123	41	0	0	0	0	0	7	0	8	1	180
Greene	201	57	0	0	0	0	0	7	0	22	0	287
Guernsey	96	22	1	2	0	0	1	3	0	5	0	130
Hamilton	540	79	0	4	12	0	1	3	0	36	1	676
Hancock	54	17	0	0	0	2	0	1	0	0	0	74
Hardin	47	2	0	0	0	0	0	1	0	1	0	51
Harrison	No Data Submitted											0
Henry	45	15	0	0	0	0	0	0	0	3	1	64
Highland	79	12	0	0	0	0	0	2	1	4	1	99
Hocking	50	23	0	0	0	0	1	2	0	2	0	78
Holmes	45	4	0	1	0	1	0	6	0	5	3	65
Huron	115	16	0	1	3	0	2	0	0	2	1	140
Jackson	69	10	0	0	2	1	0	1	0	1	0	84
Jefferson	53	20	0	0	0	0	0	0	0	1	2	76
Knox	132	27	0	0	1	0	3	6	0	16	0	185
Lake	338	135	0	1	8	0	7	21	8	18	2	538
Lawrence	68	12	0	0	1	0	0	2	0	3	0	86
Licking	277	88	0	0	0	3	0	8	0	6	1	383
Logan	87	19	0	1	0	0	0	1	1	8	1	118
Lorain	164	30	0	0	0	0	0	1	0	1	0	196
Lucas	606	87	0	1	1	1	0	3	0	6	4	709
Madison	46	8	0	0	0	0	0	11	0	1	0	66
Mahoning	156	26	0	0	0	2	2	1	0	7	1	195
Marion	134	22	0	0	1	0	0	1	0	4	0	162
Medina	239	85	0	0	4	0	1	9	1	49	0	388
Meigs	41	7	0	0	0	0	0	2	0	2	0	52
Mercer	48	5	0	0	0	1	0	0	0	0	0	54

Local Health Department (County)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Other Wild	Total
Miami	114	31	0	0	0	1	0	2	0	8	0	156
Monroe	17	5	0	0	0	0	0	0	0	2	0	24
Montgomery - Dayton	789	163	1	0	0	0	1	8	0	9	1	972
Morgan	No Data Submitted											0
Morrow	66	11	0	1	1	0	0	3	0	0	0	82
Muskingum	218	47	0	1	0	0	0	6	0	4	1	277
Noble	13	4	0	0	0	0	0	1	0	4	0	22
Ottawa	73	28	0	0	0	2	3	0	0	0	0	106
Paulding	29	10	0	0	0	0	0	0	0	0	0	39
Perry	47	5	0	0	0	0	0	0	0	0	0	52
Pickaway	65	13	0	0	0	0	1	2	0	2	0	83
Pike	50	8	0	0	0	0	0	0	0	0	0	58
Portage	177	48	0	0	0	0	0	12	0	16	3	256
Preble	41	11	0	0	0	1	1	2	0	2	0	58
Putnam	No Data Submitted											0
Richland	234	46	0	0	0	0	3	2	0	11	0	296
Ross	127	18	0	0	0	0	0	2	0	7	0	154
Sandusky	106	36	0	1	0	0	0	3	0	3	1	150
Scioto	119	27	0	1	2	0	2	2	0	1	1	155
Seneca	66	14	0	1	0	0	0	0	0	0	0	81
Shelby	75	14	0	0	0	0	0	1	0	1	0	91
Stark	419	141	0	0	3	2	3	6	0	6	1	581
Summit	704	146	0	4	1	0	2	5	1	32	2	897
Trumbull	152	50	0	0	0	0	3	4	0	11	3	223
Tuscarawas	135	30	1	3	0	0	0	0	0	7	6	182
Union	58	27	0	0	0	0	0	4	0	6	1	96
Van Wert	43	14	0	0	0	0	0	1	0	1	0	59
Vinton	32	1	0	0	0	0	2	0	0	2	0	37
Warren	198	36	0	1	2	1	0	1	0	4	1	244
Washington	54	44	0	0	1	0	0	0	0	0	0	99
Wayne	142	28	0	1	0	0	1	1	0	4	0	177
Williams	62	14	0	0	0	0	0	0	0	7	0	83
Wood	173	29	0	2	0	0	0	2	0	1	3	210
Wyandot	37	11	0	0	0	0	0	1	0	3	0	52

Local Health Department (City)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Other Wild	Total
Alliance	58	8	1	0	0	0	0	0	0	2	0	69
Ashtabula	45	6	0	0	0	0	0	0	0	3	0	54
Belpre	7	1	0	0	0	0	0	0	0	0	0	8
Canton	269	33	0	0	0	3	2	0	0	4	2	313
Cincinnati	413	64	0	1	0	0	3	4	0	42	0	527
Cleveland	659	114	0	0	0	4	0	0	0	2	2	781
Columbus-Worthington	1,119	187	0	0	4	0	20	8	2	28	3	1,371
Conneaut	39	5	0	0	0	0	0	1	0	2	2	49
Coshocton	27	4	0	0	2	0	0	0	1	0	0	34
East Liverpool	37	7	0	0	0	0	0	1	0	0	0	45
Elyria	91	10	0	0	1	0	2	0	0	2	0	106
Findlay	94	22	0	0	0	0	1	2	0	0	1	120
Galion	24	9	0	0	0	0	1	0	0	0	0	34
Girard	13	1	0	0	0	0	0	0	0	0	0	14
Hamilton	124	36	0	1	0	0	0	0	0	2	1	164
Ironton	12	7	0	0	1	0	0	0	0	1	0	21
Kent	20	6	0	0	0	0	0	0	0	7	0	33
Lorain	142	21	0	0	2	0	0	0	0	0	10	175
Marietta	19	3	0	0	0	0	0	0	0	0	0	22
Massillon	82	18	0	0	1	0	1	0	0	2	0	104
Middletown	74	3	0	0	0	0	0	0	0	3	0	80
New Philadelphia	27	8	0	0	0	0	0	0	1	4	0	40
Niles	20	4	0	0	0	0	0	1	0	0	0	25
Norwood	37	8	0	0	0	0	0	0	0	6	0	51
Piqua	39	6	0	0	1	0	0	0	0	2	0	48
Portsmouth	60	10	0	0	0	0	1	1	0	1	0	73
Ravenna	22	6	0	0	0	0	0	0	2	3	1	34
Salem	22	8	0	0	1	0	2	0	0	1	0	34
Shaker Heights	18	4	0	0	0	0	0	0	0	15	0	37
Sharonville	10	4	0	0	0	0	0	0	0	0	0	14
Shelby	19	6	0	0	0	0	0	0	0	1	0	26
Springdale	9	2	0	0	0	0	0	0	0	0	0	11

Local Health Department (City)	Dog	Cat	Ferret	Livestock	Rodent / Rabbit (Domestic)	Other Domestic	Rodent / Rabbit (Wild)	Raccoon	Skunk	Bat	Other Wild	Total
Steubenville	25	5	0	0	0	0	0	0	0	1	0	31
Warren	63	8	0	0	0	2	0	0	0	0	0	73
Youngstown	65	9	0	0	0	0	1	1	0	3	2	81
Total, Ohio	16,289	3,647	8	39	64	46	97	293	22	749	103	21,357