

NEBRASKA

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DEPT. OF HEALTH AND HUMAN SERVICES

Nebraska Department of Health and Human Services

Division of Public Health

Epidemiology Unit

301 Centennial Mall South

Lincoln, NE 68509

Tick Exposure and Tick-Borne Disease Syndromic Surveillance Final Report, 2022



Acknowledgments

This report was prepared by the following NDHHS staff:

Jeff Hamik

Halie Smith

Tammy Dawdy

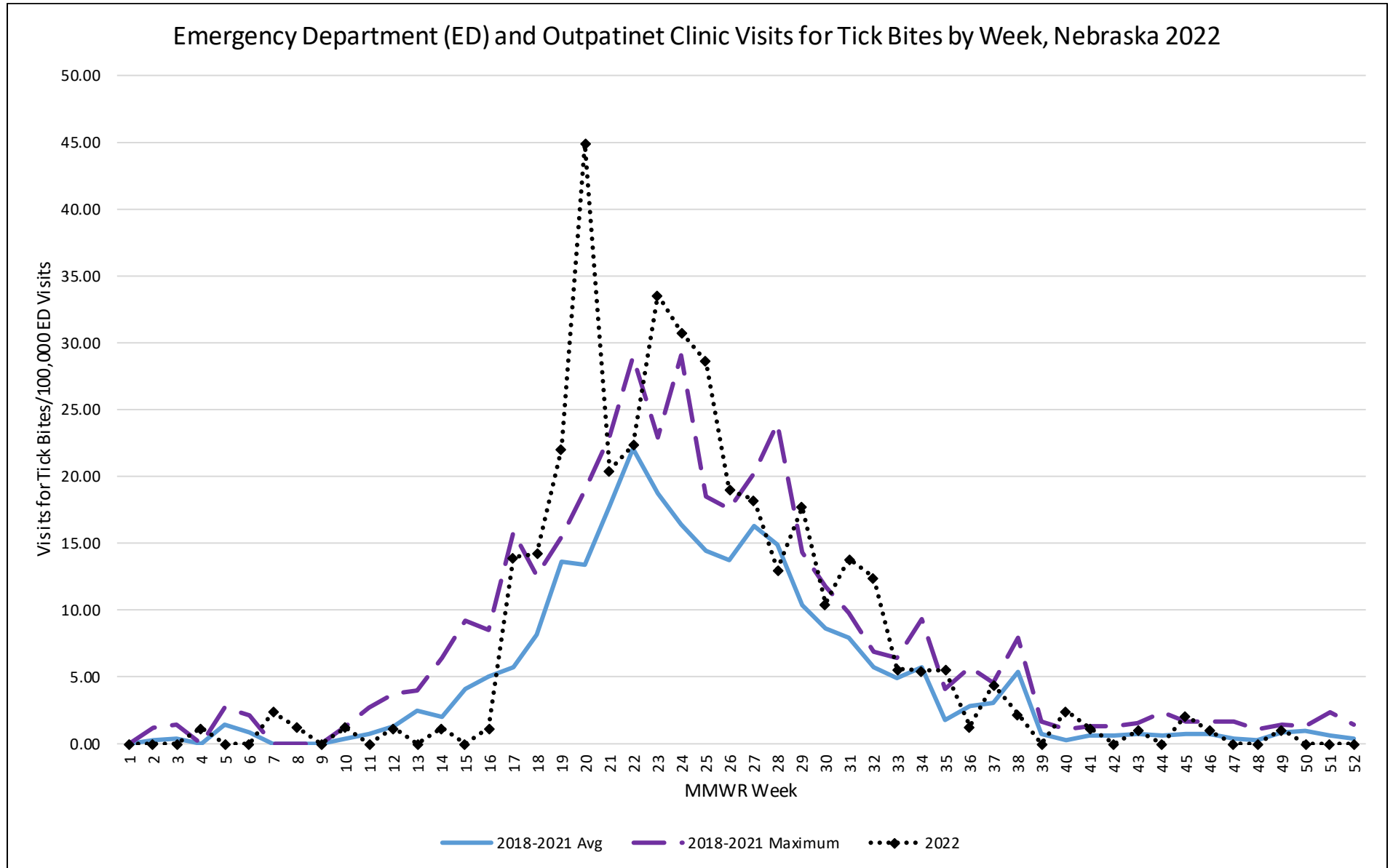
Rachael Birn

Tick Bite Exposure and Tick-Borne Disease Syndromic Surveillance Final Report, 2022

About the data

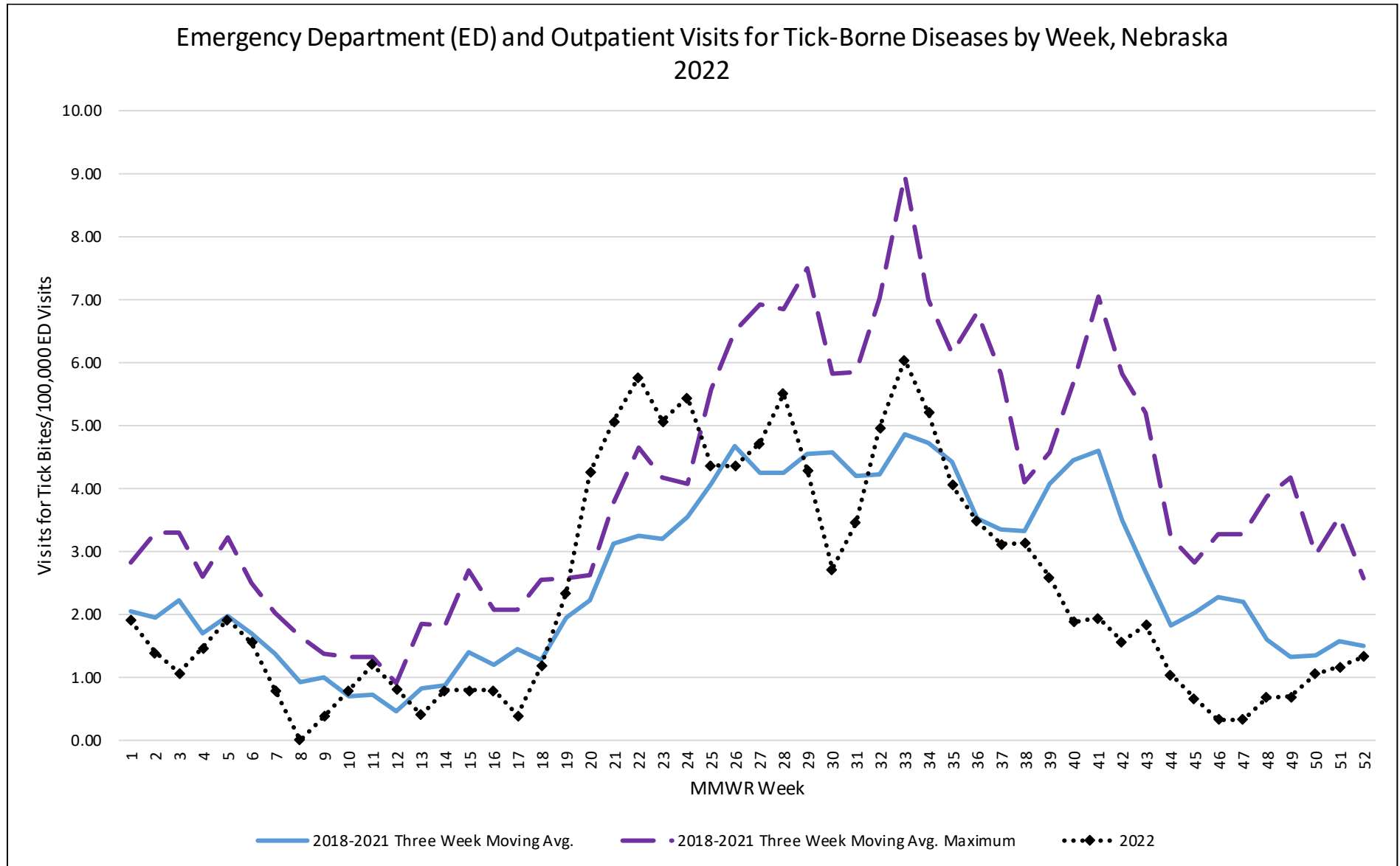
The Nebraska Department of Health and Human Services' (NDHHS) Syndromic Surveillance program electronically collects de-identified, limited information on patient visits to emergency departments (ED) and outpatient clinics across the state. The data allow the NDHHS Vector-Borne Disease Program to track trends for certain types of ED and outpatient clinic visits. This report provides bi-weekly updates (monthly outside of the vector season) on two types of visits. Tick exposure is where a patient reports a tick bite and tick-borne diseases are where the patient is discharged with a diagnosis of a tick-borne disease. Tick bite exposure data can act as a proxy to tick activity and indicate when people may be at risk for tick bites. It is important to note that not everyone exposed to ticks or with a tick-borne disease will be seen in an ED or outpatient clinic and thus the data does not show all patients with tick bites or tick-borne diseases in Nebraska. Additionally, not all EDs and outpatient clinics currently report data to the NDHHS Syndromic Surveillance program. Finally, due to the nature of the data being collected, the data may over-estimate or under-estimate the true numbers.

Figure 1. The graph below shows over the most recent week, 0 visits (for every 100,000 visits) to EDs and outpatient clinics were due to exposure to ticks. The 2022 data is compared to the average visits due to tick exposures over the last four years (2018-2021). Tick activity typically increases in the spring and early summer and decreases in late summer and early fall. The exact timing is dependent on weather conditions.



Data current as of 31 December 2022 and are subject to change

Figure 2. The graph below shows the number of visits (per 100,000 visits) to EDs and outpatient clinics that were related to diagnosis of a tick-borne disease. The 2022 data is compared to the average visits diagnosed with a tick-borne disease over the last four years (2018-2021). Please note that the data are presented as a three-week moving average due to the variation in the reported data seen week to week. Tick activity typically increases in the spring and early summer and decreases in late summer and early fall. Tick-borne disease cases tend to follow this trend.



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Figure 3. The map below shows the rate per 100,000 population of ED and outpatient clinic visits by patients who had a visit related to a tick exposure, by Nebraska local health department residence, 2022.

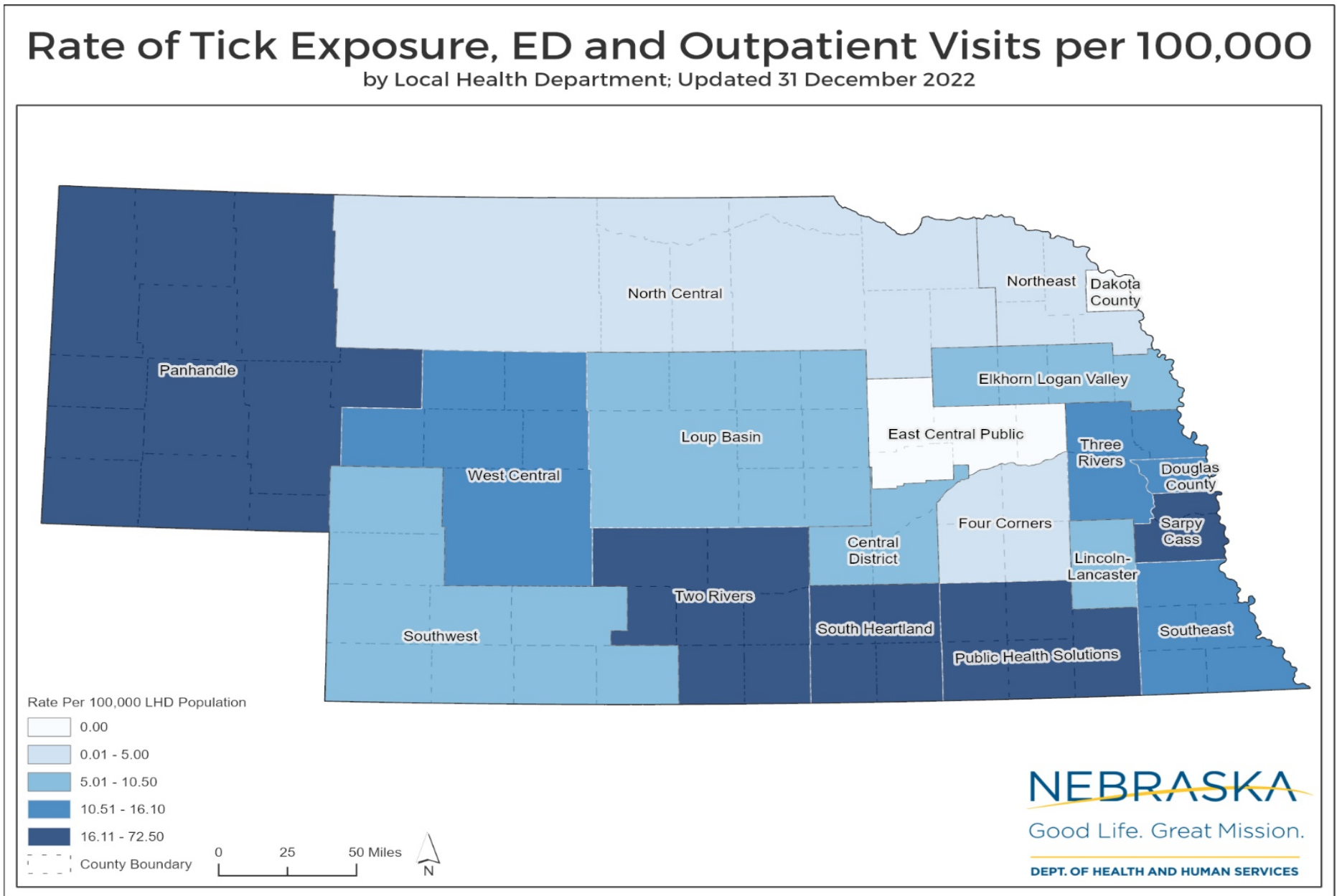


Figure 4. The graph below shows the rate of ED and outpatient clinic visits (per 100,000 ED visits) made by patients who were diagnosed with a tick-borne disease by 10-year age group, 2022.

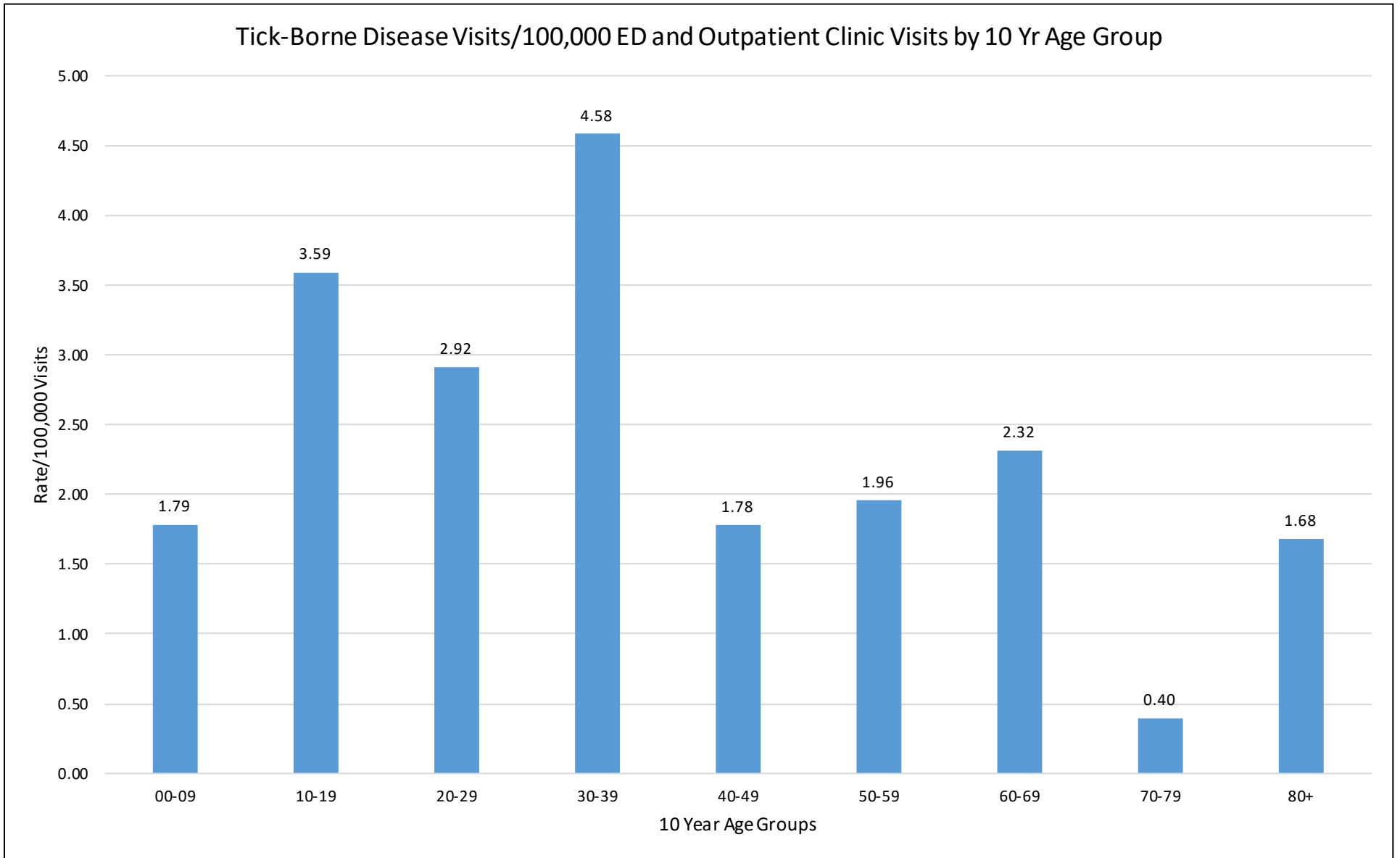
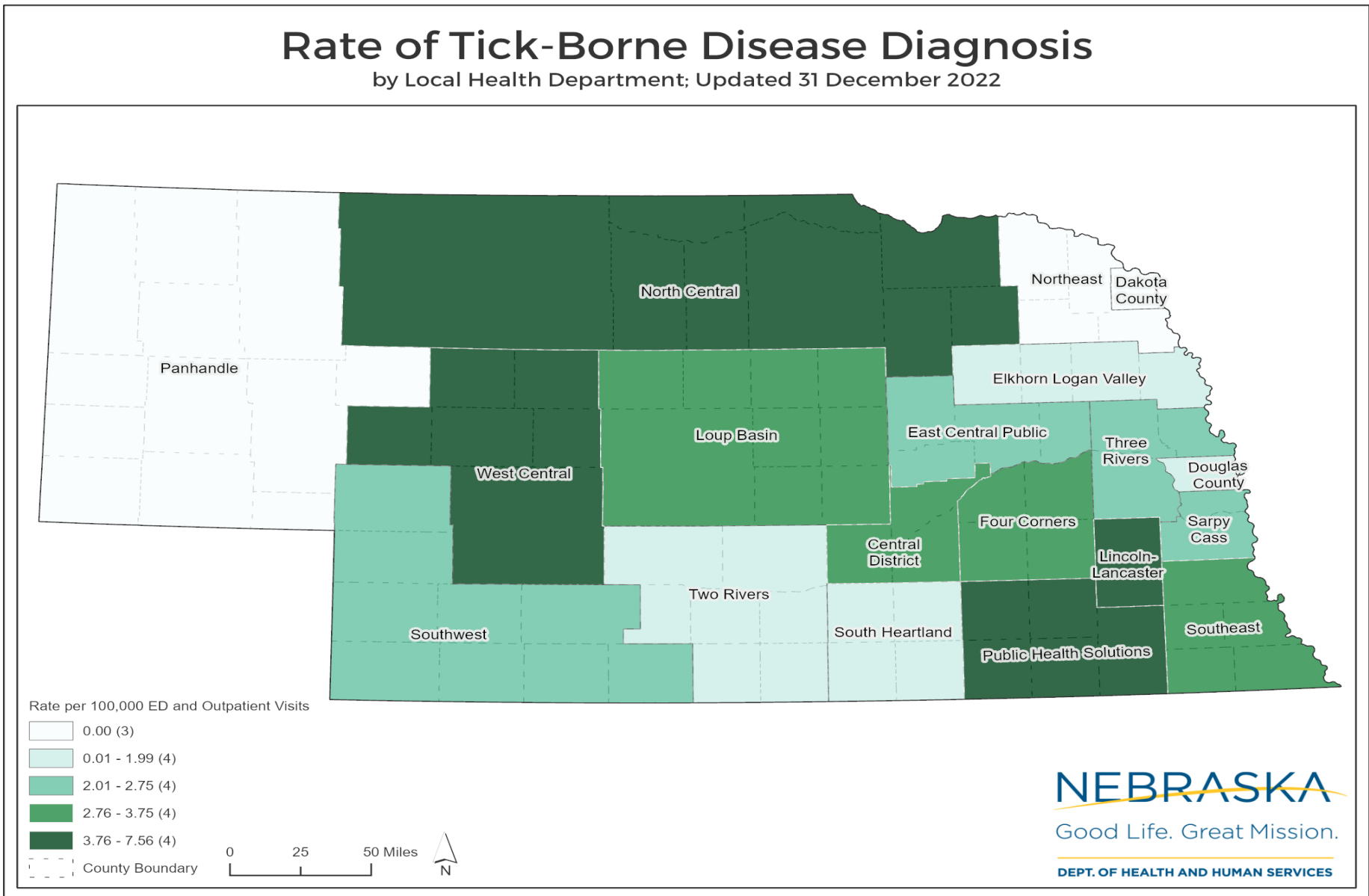


Table 1. The table below shows the number and rate of ED and outpatient clinic visits by patients diagnosed with a tick-borne disease by local health department jurisdiction, 2022 to date.

Local Health Department	Total ED Visits	# of Tick-Borne Disease Visits	Rate (Per 100,000) of Tick-Borne Disease Visits
Central District Health Department	130743	4	3.06
Dakota County Health Department	5363	0	0.00
Douglas County Health Department	1484585	26	1.75
East Central District Health Department	100127	2	2.00
Elkhorn Logan Valley Public Health Department	125646	1	0.80
Four Corners Health Department	33616	1	2.97
Lincoln-Lancaster County Health Department	336129	14	4.17
Loup Basin Public Health Department	81200	3	3.69
North Central District Health Department	145545	11	7.56
Northeast Nebraska Public Health Department	62330	0	0.00
Panhandle Public Health Department	106678	0	0.00
Public Health Solutions	143277	6	4.19
Sarpy-Cass Department of Health and Wellness	612580	16	2.61
South Heartland District Health Department	218492	0	0.00
Southeast District Health Department	110572	1	0.90
Southwest Nebraska Public Health Department	60744	2	3.29
Three Rivers Public Health Department	97662	2	2.05
Two Rivers Public Health Department	94591	2	2.11
West Central District Health Department	370025	2	0.54

Figure 5. The map below shows the number and rate of ED and outpatient clinic visits by patients diagnosed with a tick-borne disease by local health department jurisdiction, 2022.



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MMWR Weeks

MMWR Week	Week Starting	Week Ending
1	1/2/2022	1/8/2022
2	1/9/2022	1/15/2022
3	1/16/2022	1/22/2022
4	1/23/2022	1/29/2022
5	1/30/2022	2/5/2022
6	2/6/2022	2/12/2022
7	2/13/2022	2/19/2022
8	2/20/2022	2/26/2022
9	2/27/2022	3/5/2022
10	3/6/2022	3/12/2022
11	3/13/2022	3/19/2022
12	3/20/2022	3/26/2022
13	3/27/2022	4/2/2022
14	4/3/2022	4/9/2022
15	4/10/2022	4/16/2022
16	4/17/2022	4/23/2022
17	4/24/2022	4/30/2022
18	5/1/2022	5/7/2022
19	5/8/2022	5/14/2022
20	5/15/2022	5/21/2022
21	5/22/2022	5/28/2022
22	5/29/2022	6/4/2022
23	6/5/2022	6/11/2022
24	6/12/2022	6/18/2022
25	6/19/2022	6/25/2022
26	6/26/2022	7/2/2022
27	7/3/2022	7/9/2022
28	7/10/2022	7/16/2022
29	7/17/2022	7/23/2022
30	7/24/2022	7/30/2022
31	7/31/2022	8/6/2022
32	8/7/2022	8/13/2022
33	8/14/2022	8/20/2022
34	8/21/2022	8/27/2022
35	8/28/2022	9/3/2022
36	9/4/2022	9/10/2022
37	9/11/2022	9/17/2022
38	9/18/2022	9/24/2022
39	9/25/2022	10/1/2022
40	10/2/2022	10/8/2022
41	10/9/2022	10/15/2022

MMWR Week	Week Starting	Week Ending
42	10/16/2022	10/22/2022
43	10/23/2022	10/29/2022
44	10/30/2022	11/5/2022
45	11/6/2022	11/12/2022
46	11/13/2022	11/19/2022
47	11/20/2022	11/26/2022
48	11/27/2022	12/3/2022
49	12/4/2022	12/10/2022
50	12/11/2022	12/17/2022
51	12/18/2022	12/24/2022
52	12/25/2022	12/31/2022

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