

SUPPLEMENTARY APPENDIX

Supplementary Table 1. Norovirus season characteristics by region, 2012–2019

	Mid-Atlantic	Midcentral	Midwest	Northeast	Northwest	Southcentral	Southeast	West	Min	Max
Number of outbreaks	3041	2880	3904	3032	1661	1727	2526	1558	1558	3904
Onset week	November 28	November 7	November 21	November 28	October 24	October 17	November 7	September 26	September 26	November 28
Peak week	January 2	January 2	February 27	January 16	January 2	January 2	January 30	December 26	December 26	February 27
Offset week	April 10	April 24	April 24	April 17	May 29	May 8	May 8	June 5	April 10	June 5
Season duration (weeks)	20	25	23	21	32	30	27	37	20	37
Peak to mean ratio	3.0	2.8	2.6	3.0	2.1	2.2	2.7	1.9	1.9	3.0

Supplementary Table 2. Norovirus season characteristics by region, limited to outbreaks reported to NORS, 2009–2019

	Mid-Atlantic	Midcentral	Midwest	Northeast	Northwest	Southcentral	Southeast	West	Min	Max
Number of outbreaks	3214	2061	2746	3498	1024	1379	1704	1081	1024	3498
Onset week	November 28	November 14	November 21	December 5	October 17	October 17	October 31	September 19	September 19	December 5
Peak week	February 6	January 2	January 2	January 16	December 26	January 16	February 6	December 26	December 26	February 6
Offset week	April 10	April 17	April 24	April 10	May 22	May 8	May 1	May 22	April 10	May 22
Season duration (weeks)	20	23	23	19	32	30	27	36	19	36
Peak to mean ratio	3.0	3.0	2.6	3.0	2.5	2.3	2.9	2.0	2.0	3.0

Supplementary Table 3. Norovirus season characteristics by region, limited to outbreaks spread by person-to-person transmission, 2009–2019

	Mid-Atlantic	Midcentral	Midwest	Northeast	Northwest	Southcentral	Southeast	West	Min	Max
Number of outbreaks	3437	2815	3434	3662	1151	1423	2208	901	901	3662
Onset week	November 28	November 21	November 28	December 5	October 31	October 24	November 14	September 19	September 19	December 5
Peak week	January 2	January 2	February 27	January 16	December 26	January 16	February 6	April 24	December 26	April 24
Offset week	April 3	April 17	April 17	April 10	May 22	May 8	April 24	May 15	April 3	May 22
Season duration (weeks)	19	22	21	19	30	29	24	35	19	35
Peak to mean ratio	3.3	3.1	2.7	3.1	2.6	2.3	3.0	2.0	2.0	3.3

Supplementary Table 4. Norovirus season characteristics by region, limited to foodborne outbreaks, 2009–2019

	Mid-Atlantic	Midcentral	Midwest	Northeast	Northwest	Southcentral	Southeast	West	Min	Max
Number of outbreaks	261	579	683	361	334	286	421	523	261	683
Onset week	October 10	September 26	September 26	October 3	September 12	October 17	October 3	September 26	September 12	October 17
Peak week	December 5	December 12	May 8	December 12	January 16	February 20	April 3	November 28	November 28	May 8
Offset week	April 10	April 3	April 10	April 3	April 17	June 12	April 3	April 24	April 3	June 12
Season duration (weeks)	27	28	29	27	32	35	27	31	27	35
Peak to mean ratio	4.0	3.1	2.2	2.9	1.9	2.7	2.5	2.4	1.9	4.0

Supplementary Table 5. Norovirus season characteristics by region, limited to confirmed norovirus outbreaks, 2009–2019

	Mid-Atlantic	Midcentral	Midwest	Northeast	Northwest	Southcentral	Southeast	West	Min	Max
Number of outbreaks	766	1613	1609	721	1021	630	1286	763	630	1613
Onset week	November 28	October 31	November 21	November 28	October 24	October 31	November 14	October 24	October 24	November 28
Peak week	January 2	January 2	February 27	February 27	January 2	January 2	January 30	November 28	November 28	February 27
Offset week	April 10	May 1	May 1	May 1	May 22	May 15	May 8	June 12	April 10	June 12
Season duration (weeks)	20	27	24	23	31	29	26	34	20	34
Peak to mean ratio	3.3	2.7	2.8	3.2	2.4	2.7	3.1	2.0	2.0	3.3

Supplementary Table 6. Norovirus season characteristics by region, limited to confirmed norovirus GII.4 outbreaks, 2009–2019

	Mid-Atlantic	Midcentral	Midwest	Northeast	Northwest	Southcentral	Southeast	West	Min	Max
Number of outbreaks	445	916	955	402	613	347	757	392	347	955
Onset week	December 5	November 14	December 19	December 5	November 28	November 14	November 28	November 14	November 14	December 19
Peak week	March 6	January 2	February 27	February 27	February 20	February 20	January 30	March 20	January 2	March 20
Offset week	March 27	April 24	April 24	April 10	May 22	April 3	May 1	May 22	March 27	May 22
Season duration (weeks)	17	24	19	19	26	21	23	28	17	28
Peak to mean ratio	3.9	2.6	3.9	3.4	2.6	3.7	3.2	2.8	2.6	3.9

Supplementary Table 7. Norovirus season characteristics by region, limited to confirmed norovirus non-GII.4 outbreaks, 2009–2019

	Mid-Atlantic	Midcentral	Midwest	Northeast	Northwest	Southcentral	Southeast	West	Min	Max
Number of outbreaks	302	662	619	299	399	263	504	351	263	662
Onset week	October 31	October 10	October 24	November 7	September 19	October 10	October 17	October 17	September 19	November 7
Peak week	January 2	January 2	December 5	January 16	January 2	January 2	January 30	November 28	November 28	January 30
Offset week	May 1	May 15	May 29	May 22	June 5	June 19	May 29	June 19	May 1	June 19
Season duration (weeks)	27	32	32	29	38	37	33	36	27	38
Peak to mean ratio	3.1	2.8	3.0	3.7	2.9	2.8	2.8	2.8	2.8	3.7

Supplementary Table 8. Norovirus season characteristics by Climate Extremes Index region*, 2009–2019

	Northeast	Northern Rockies and Plains	Northwest	Ohio Valley	South	Southeast	Southwest	Upper Midwest	West	Min	Max
Number of outbreaks	5860	644	1726	4473	691	4054	1179	5136	1232	644	5860
Onset week	December 5	October 24	October 17	November 14	October 24	November 14	October 10	November 7	October 3	October 3	December 5
Peak week	January 2	December 19	December 26	January 2	February 20	January 30	December 5	January 2	November 28	November 28	February 20
Offset week	April 17	May 8	May 29	April 24	April 24	April 24	May 29	April 24	June 5	April 17	June 5
Season duration (weeks)	20	29	33	24	27	24	34	25	36	20	36
Peak to mean ratio	3.0	2.7	2.2	2.4	2.9	3.0	1.9	2.7	1.9	1.9	3.0

*Climate Extremes Index regions were defined as follows (by NOAA):

Northeast: Delaware, Maryland, New Jersey, Pennsylvania, Washington DC, Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont

Northern Rockies and Plains: Nebraska, North Dakota, South Dakota, Montana, Wyoming

Northwest: Idaho, Oregon, Washington

Ohio Valley: Missouri, Illinois, Indiana, Ohio, Kentucky, Tennessee, West Virginia

South: Kansas, Texas, Oklahoma, Louisiana, Arkansas, Mississippi

Southeast: Alabama, Florida, Georgia, North Carolina, South Carolina, Virginia

Southwest: Utah, Colorado, Arizona, New Mexico

Upper Midwest: Minnesota, Iowa, Wisconsin, Michigan

West: California, Nevada