

# Epidemiology & Infection

## A Large Outbreak of Acute Gastroenteritis in Shippensburg, Pennsylvania, 1972 Revisited: Evidence for Common Source Exposure to a Recombinant GII.Pg/GII.3 Norovirus

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### Supplementary Material

**Supplemental Table S1 – Symptoms in cases at Shippensburg College and town**

Symptom	% College	% Towns
Nausea	91.0	73.0
Vomiting	75.8	50.7
Diarrhoea	79.1	66.9
Stomach cramps	76.4	64.0
Fever or feverish feeling	77.4	28.6
Chills	74.2	41.8
Muscle aches	60.4	31.4
Headache	72.4	48.7
Dizziness	65.9	29.3
Sore throat	24.3	18.9
Cough	12.7	16.9
Runny nose	18.4	17.7

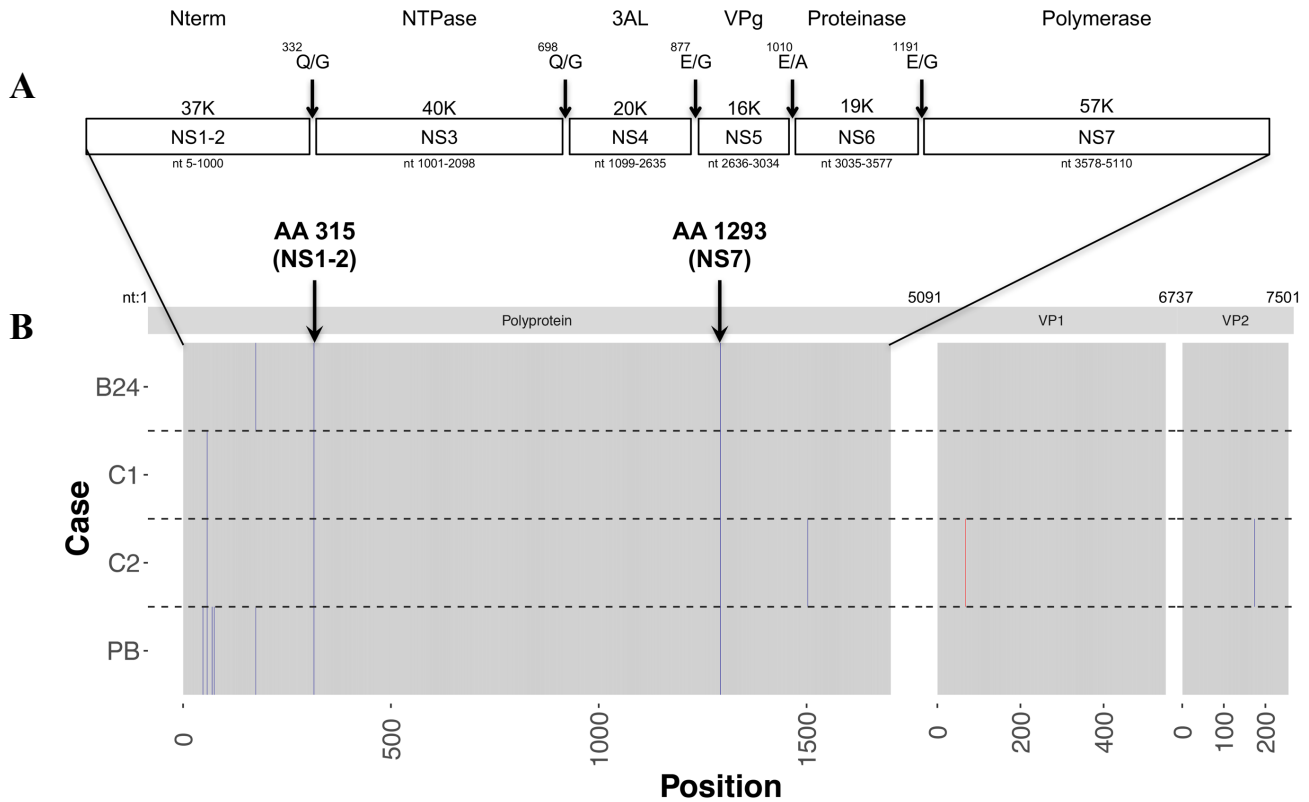
Table adapted from the initial CDC outbreak report. Symptoms were similar for both the college and town, with 91.0% of the college cases experiencing nausea compared to 73.0% of the town cases. The percentage experiencing a particular symptom was higher in the college except for cough.

**Supplemental Table S2 – Next generation sequencing coverage**

Sample	Median sequencing depth	Interquartile range	Mean sequencing depth	Standard deviation
B24	3367.5	2642-4537	3651.9	1435.8
C1	8702	7111-10798	9064.5	2937.4
C2	15041	11683-19302	15754.6	5710.8
PB	9142.5	6572-11888	9968.3	4731.6

Median and mean sequencing depth with appropriate measures of dispersion for each sample are provided.

**Supplemental Figure S1 – Predicted ORF1 features and underlying variation in the viral genome.**



A) Predicted ORF1 features are illustrated based on norovirus GII genome [7]. Protein size and amino acid cleavage sites are noted above the map, with nucleotide boundaries noted below. B) Underlying amino acid variation in the four cases is indicated in the nonstructural polyprotein, VP1, and VP2. Nucleotide boundaries of the ORFs are noted above the graph. Blue lines signify amino acids with >10% of the read population differing from consensus. The red line in VP1 is amino acid 68 in case C2 that differed from the other consensus sequences.

**Supplemental Table S3 – Genbank strains used for phylogenetic analysis of Shippensburg strain**

Accession Number	Polymerase genotype	Capsid genotype	Year isolated	Strain Name
KY442319	GII.Pg	GII.3	1972	ShippB24
KM198484, KM198493, KM198496, KM198500, KM198505, KM198509, KM198511, KM198528, KM198529, KM198547, KM198553, KM198561, KM198563, KM198572, KM198573, KM198583, KM198586, KM198590	GII.P21	GII.3	2009-2011	30212, 30468, 20419, C2H-20, 20460, 20479, C2H-24, C2H-25, C2H-27, C2H-47, 30381, 30303, C2365, 20370, C2H-45, 20493, 30400, C2H-39
KM198492, KM198503	GII.Pg	GII.12	2010	30448, C2033
KC464496, KC464497, KC464498, KC464499, KC464500	GII.Pg	GII.12	2010	CGMH38, CGMH39, CGMH40, CGMH41, CGMH42
EU921389	GII.P21	GII.3	2007	Pune/PC52
AB365435	GII.P21	GII.3	2004	TCH04-577
LN854569	GII.P21	GII.3	2014	Groningen
LN854570	GII.Pg	GII.1	2014	Groningen
GU980585	GII.P12	GII.3	2006	CBNU1
GU991355	GII.P12	GII.3	2009	SH312
KF306213	GII.P12	GII.3	2013	Jingzhou/2013402
JX846924	GII.Pg	GII.3	1978	HK71
HQ449728, HQ664990	GII.Pg	GII.12	2010	HS210, HS206
JQ613568, JQ613569	GII.Pg	GII.12	2009-2010	Wahroonga/NSW004P, Gunnedah/NSW895P
GQ845370	GII.Pg	GII.12	2008	StGeorge/NSW199U
KF895841, KF944110, KF944111	GII.P16	GII.3	2011-2012	Smolensk/S12-31, Novosibirsk/Nsk-N1659, Novosibirsk/Nsk-N1648
U02030	GII.P3	GII.3	1993	Toronto/TV24
DQ379713	GII.PX	GII.3	1983	Goulburn Valley/G5175A
DQ379714	GII.Pg	GII.13	1983	Goulburn Valley/G5175B
KC962457	GII.P21	GII.3	2010	6108
KC962458	GII.PX	GII.3	2010	Bushbuckridge6387
KC962459	GII.Pg	GII.1	2011	6799
KJ710246	GII.Pg	GII.12	2012	Bushbuckridge9306
KR904231	GII.Pg	GII.10	2013	Johannesburg12243
KR904232	GII.Pg	GII.2	2013	Bushbuckridge12257

Accession numbers for GenBank strains used in phylogenetic analyses are provided. Strain names and years are abstracted from GenBank names. Polymerase and capsid genotypes were identified using the norovirus typing tool [8].