



Public Health
England

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Routine reports of gastrointestinal infections in humans, England and Wales: December 2019 and January 2020

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Common gastrointestinal infections in England and Wales

Table 1: Laboratory reports of common gastrointestinal infections in England and Wales reported to Public Health England: weeks: 1 – 4 (30 December 2019 – 26 January 2020)

| Laboratory reports * | 01/20 | 02/20 | 03/20 | 04/20 | Total reports 1-4/20 | Cumulative total to 4/20 | Cumulative total to 4/19 |
|-----------------------------|-------|-------|-------|-------|----------------------|--------------------------|--------------------------|
| <i>Campylobacter</i> spp. | 753 | 996 | 1040 | 943 | 3732 | 3732 | 3079 |
| <i>Cryptosporidium</i> spp. | 65 | 76 | 74 | 51 | 266 | 266 | 177 |
| <i>Giardia</i> spp. | 70 | 84 | 92 | 122 | 368 | 368 | 352 |
| <i>Salmonella</i> spp. | 82 | 129 | 128 | 106 | 445 | 445 | 367 |
| <i>Shigella</i> spp. | 37 | 76 | 66 | 79 | 258 | 258 | 191 |
| STEC O157† | 0 | 5 | 6 | 2 | 13 | 13 | 16 |
| Rotavirus | 18 | 23 | 21 | 22 | 84 | 84 | 157 |
| Norovirus | 229 | 219 | 197 | 185 | 830 | 830 | 681 |

* Results are derived from Public Health England's Second Generation Surveillance System (SGSS) and are a composite of initial results from primary diagnostic laboratories (not yet subtyped) and results that have been subtyped at the relevant national reference laboratories.

† Shiga toxin producing *Escherichia coli* (STEC) O157 results are derived from Public Health England's National Enhanced Surveillance System for STEC.

Less common gastrointestinal infections in England and Wales

Table 2: Quarterly laboratory reports of less common gastrointestinal infections in England and Wales reported to Public Health England: weeks: 40 – 52 (1 October – 31 December 2019)

| Laboratory reports * | Total reports 40-52/19 | Cumulative total to 52/19 | Cumulative total to 52/18 |
|------------------------------|------------------------|---------------------------|---------------------------|
| Astrovirus | 195 | 494 | 410 |
| Sapovirus | 135 | 492 | 462 |
| <i>Shigella boydii</i> | 24 | 83 | 71 |
| <i>Shigella dysenteriae</i> | 12 | 34 | 34 |
| <i>Plesiomonas</i> | 13 | 78 | 73 |
| <i>Vibrio</i> spp. | 28 | 64 | 71 |
| <i>Yersinia</i> spp. | 21 | 133 | 172 |
| <i>Entamoeba histolytica</i> | 21 | 83 | 142 |
| <i>Blastocystis hominis</i> | 15 | 92 | 127 |
| <i>Dientamoeba fragilis</i> | 2 | 25 | 44 |

* Results are derived from Public Health England's Second Generation Surveillance System (SGSS) and are a composite of initial results from primary diagnostic laboratories (not yet subtyped) and results that have been subtyped at the relevant national reference laboratories.
 Note: All data are provisional.

Salmonella infections in England and Wales

Details of 377 *Salmonella* infections stratified by serotype reported in the previous period (weeks 49 – 52, 2019) are given in the table below. In the current reporting period (weeks 1 – 4, 2020), 445 *Salmonella* infections were reported.

Table 3: *Salmonella* infections (faecal specimens) in England and Wales stratified by serotype: weeks 49 - 52 (2 December – 29 December 2019)[‡]

| Serotype | Total |
|--|------------|
| <i>Salmonella</i> Enteritidis | 98 |
| <i>Salmonella</i> Typhimurium | 49 |
| <i>Salmonella</i> Newport | 17 |
| <i>Salmonella</i> Agona | 12 |
| <i>Salmonella</i> Infantis | 9 |
| Other <i>Salmonella</i> serovars | 192 |
| Total <i>Salmonella</i> infections (provisional data) | 377 |

[‡] Subtyping results in Tables 3 and 4 are derived from data generated by Public Health England's Gastrointestinal Bacteria Reference Unit (GBRU). They are presented a month in arrears to allow for the lag between initial diagnosis at primary diagnostic laboratories and confirmatory (sub) typing at the reference laboratory

Notes: Phage typing for *Salmonella* spp. and *Shigella* spp. ceased as of 1 November 2015. From 1 December 2014, data for these reports has been derived from a new laboratory reporting system (Second Generation Surveillance System, SGSS); direct comparisons between reports prior to and following this period may therefore not be valid. All data are provisional.

Shigella infections in England and Wales

Details of 207 shigella infections stratified by serotype reported in the previous period (weeks 49 – 52, 2019) are given in the table below. In the current reporting period (weeks 1 – 4, 2020), 258 shigella infections were reported.

Table 4: Shigella infections (faecal specimens) in England and Wales stratified by serotype: weeks 49 - 52 (2 December – 29 December 2019)[‡]

| Serotype | Total |
|--|------------|
| <i>Shigella sonnei</i> | 61 |
| <i>Shigella flexneri</i> | 71 |
| <i>Shigella boydii</i> | 8 |
| <i>Shigella dysenteriae</i> | 4 |
| <i>Shigella</i> not speciated | 63 |
| Total <i>Shigella</i> infections (provisional data) | 207 |

[‡] Subtyping results in Tables 3 and 4 are derived from data generated by Public Health England's Gastrointestinal Bacteria Reference Unit (GBRU). They are presented a month in arrears to allow for the lag between initial diagnosis at primary diagnostic laboratories and confirmatory (sub) typing at the reference laboratory

Notes: Phage typing for *Salmonella* spp. and *Shigella* spp. ceased as of 1 November 2015. From 1 December 2014, data for these reports has been derived from a new laboratory reporting system (Second Generation Surveillance System, SGSS); direct comparisons between reports prior to and following this period may therefore not be valid. All data are provisional.

Outbreaks of foodborne illness in England and Wales

Table 5: Quarterly reports of outbreaks of foodborne illness in England and Wales reported to Public Health England: weeks 40 - 52 (1 October – 31 December 2019)

| Region* | Organism | Number ill | Laboratory confirmed cases | Suspect vehicle | Evidence [§] |
|------------------------------|-------------------------------|------------|----------------------------|--------------------|-----------------------|
| South of England | Norovirus | 58 | 4 | Oysters | Descriptive |
| North of England | <i>Salmonella</i> Enteritidis | 5 | 5 | Multiple foods | Descriptive |
| Midlands and East of England | Norovirus | 37 | 2 | No food identified | Descriptive |
| South of England | Suspected Toxin | 14 | 0 | No food identified | Descriptive |
| London | <i>Shigella flexneri</i> | 15 | 15 | No food identified | Descriptive |

[§] **Descriptive epidemiological evidence:** suspicion of a food vehicle in an outbreak based on the identification of common food exposures, from the systematic evaluation of cases and their characteristics and food histories over the likely incubation period by standardised means (such as standard questionnaires) from all, or an appropriate subset of, cases.

Microbiological evidence: detection of a causative agent in a food vehicle or its component or in the food chain or its environment combined with detection in human cases, or clinical symptoms and an onset of illness in outbreak cases compatible with / pathognomonic to the causative agent identified in the food vehicle or its component or in the food chain or its environment.

Analytical epidemiological evidence: a statistically significant association between consumption of a food vehicle and being a case in an outbreak demonstrated by studies such as a cohort study, a case-control study or similar studies

Notes: Data on outbreaks is derived from the electronic foodborne and non-foodborne outbreak surveillance system (eFOSS). Outbreaks are reported once complete / information has been received from teams therefore outbreak investigations may have occurred during this reporting period but have not yet been reported into the eFOSS database. Data are provisional.

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health, and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

About Health Protection Report

Health Protection Report is a national public health bulletin for England and Wales, published by Public Health England. It is PHE's principal channel for the dissemination of laboratory data relating to pathogens and infections/communicable diseases of public health significance and of reports on outbreaks, incidents and ongoing investigations.

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