## Human *Salmonella* isolates - 2018

| | Health Districts | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Serotype | NL | NW | CA | SA | WK | TG | BE | GS | RO | TP | RU | HB | TK | WG | MW | WR | WN | HU | NM | WC | CB | SC | OT | SO | Total | Blood | Urine | Travel |
| Aberdeen | | 1 | 2 | | | | | | | | | 1 | | | | | | | | | | | | | 4 | 1 | | 1 |
| Abony | | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | 2 | | | 1 |
| Agona | | | | 5 | 1 | | 2 | | | | | | | | 3 | | 4 | | | 1 | 8 | | 3 | | 27 | | 3 | 17 |
| Albany | | | 1 | 2 | | | 1 | | | | | | | | | | | | | | | | | | 4 | | 1 | 2 |
| Altona | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Amsterdam var. 15+ | | | | | | | 1 | | | | | | | | | | | | | 1 | | | | | 2 | | 1 | |
| Anatum | | 1 | 2 | | | | | | | | | | | | | | | | | | 1 | | | | 4 | 1 | | 2 |
| Anatum var. 15+ | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| Apeyeme | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| Bareilly | | | | 3 | | | 4 | | | | | | 1 | | | | | | | | | | | | 8 | | | 4 |
| Birkenhead | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | | | |
| Bovismorbificans | 1 | 2 | 2 | 8 | 8 | | 22 | | 1 | | | 4 | 6 | | 6 | | 9 | | | | 8 | 1 | 5 | | 83 | 1 | 3 | 3 |
| Braenderup | | | | 3 | 1 | | | | | | | | | | | | | | | | 1 | | | | 5 | | | 4 |
| Brancaster | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Brandenburg | | 1 | 2 | 4 | 1 | | 1 | | | | | | 2 | | 1 | | 1 | | | 7 | 13 | 2 | 10 | | 45 | 2 | 2 | 2 |
| Brunei | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| Carno | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| Charity | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | | 1 | |
| Chester | | | | | | | | | | | | 1 | | | 1 | | 1 | | | | | | | | 3 | | | 1 |
| Concord | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | | | 1 |
| Corvallis | | 1 | 2 | 1 | | | | | | | | | | | | | | | | | | | 1 | | 5 | 1 | | 4 |
| Derby | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| Elisabethville | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| Enteritidis phage type: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | 3 | | | | | | | | 1 | 1 | | | | | | | | 1 | | 3 | | 9 | | | 5 |
| 1b | | 2 | | 4 | | | 3 | | | | | | 1 | | | | | | | | 2 | | 2 | | 14 | | | 11 |
| 1c | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| 1e | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| 3 | | | | 2 | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| 3a | | | | 1 | | | | | | | | | | | | | 1 | | | | 1 | | | | 3 | | | 2 |
| 4b | | | | 1 | | | | | | | | | | | 1 | | 1 | | | 1 | 2 | | | | 6 | | | |
| 6a | 1 | | 1 | 2 | | | 1 | | | | | | 1 | | 1 | | 2 | | | | 1 | | | | 10 | | | 8 |
| 8 | | | 1 | 2 | | | | | | | | | | | | | 1 | | | | | | 1 | | 5 | | | 3 |
| 11 | 1 | | 4 | 1 | 2 | | 6 | | | | | | 1 | | 2 | | 4 | | | | 5 | | 4 | | 30 | 1 | 1 | |
| 12 | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 2 | | | 1 |
| 13 | | | | 1 | | | | | | | | | 1 | | | | | | | | | | | | 2 | | 1 | |
| 14c | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| 21 | | | | 3 | 1 | | | | | | | | 1 | | | | 1 | | | | 1 | | 1 | | 8 | | | 6 |
| 21 variant | | | | 2 | | | | | | | | | | | | | | | | | | | 1 | | 3 | | | 3 |
| 21c | | | | 1 | | | | | | | | | | | 1 | | | | | | | | 1 | | 3 | | | 3 |
| 22 | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | | | 1 |
| 26 | | | 1 | 1 | | | 1 | | | | | | | | | | 2 | | | | | | 1 | | 6 | | 1 | 2 |
| 34 | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| 34b | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| 43 | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | |
| 49 | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| 50 | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| RDNC | | | 3 | 2 | | | 2 | | | | | | 1 | | 2 | | 2 | | | | 2 | | 1 | | 15 | | 1 | 7 |
| Untyoable | | | | | 1 | | | | | | | | | | | | | | | | 1 | | | | 2 | | | 2 |
| Give | | | | | | | | | | | | | | | | | | | | | 2 | | | | 2 | | | 2 |
| Hadar | | | | 1 | | | | | | | | | | | | | 1 | | | | | | 1 | | 3 | | | 2 |
| Haifa | | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | 2 | | | 1 |
| Heidelberg | | | | | 1 | | 2 | | | | | | | | | | | | | | | | | | 3 | | | 2 |
| Hindmarsh | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| Hvittingfoss | | | | 2 | 1 | | | | | | | | | | 1 | | | | | | 1 | | | | 5 | | | 2 |
| Indiana | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| Infantis | | 1 | 2 | 5 | 3 | | 1 | | | | | 1 | | | 2 | | | | | | 1 | | | | 16 | | | 4 |
| Javiana | | | | 6 | | | | | | | | | | | | | | | | | | | | | 6 | | | 2 |
| Kedougou | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| Kentucky | | | | | | | 2 | | | | | | | | | | 3 | | | | | | 3 | | 8 | | | 5 |
| Kottbus | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| Lexington | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| Litchfield | | | 1 | | | | | | | | | | | | | | | | | | 1 | | | | 2 | | | |
| Livingstone | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| London | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| Mbandaka | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | 3 | | | 3 |
| Mendon | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| Mississippi | | | 1 | 1 | | | | | | | | | | | 1 | | 1 | | | | 3 | | 8 | | 15 | 1 | | 1 |
| Montevideo | | 1 | 1 | | | | 1 | | | | | | | | | | 1 | | | | 1 | | | | 5 | | 1 | 3 |
| Muenchen | | | | 1 | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | 4 | | | 2 |
| Muenster | | | | | | | 1 | | | | | | | | | | 1 | | | | | | | | 2 | | | 2 |
| Newport | | | | 2 | 1 | | 2 | | | | | | | | | | 2 | | | | | | 3 | | 10 | | 1 | 8 |
| Oranienburg | 1 | 1 | | 1 | | | | | | | | | | | 1 | | | | | | | | | | 4 | | 1 | 3 |
| Oslo | | | | 2 | | | 1 | | | | | | 1 | | 2 | | | | | | 2 | | | | 8 | | | 5 |
| Othmarschen | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| Panama | | | | 2 | | | 1 | | | | | | | | | | 1 | | | | 1 | | | | 5 | | | 5 |
| Paisana | | | | | | | | | | | | | | | | | 1 | | | | 2 | | 1 | | 3 | | | 2 |
| Paratyphi A | | 3 | 6 | 3 | | | | | | | | 2 | | | | | 2 | | 1 | | | | 1 | | 18 | 10 | | 13 |
| Paratyphi B | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| Paratyphi B var. Java | | 2 | 1 | 10 | 2 | | 4 | | | | | | 1 | | 2 | | 4 | | | | 4 | | 2 | | 32 | | | 21 |
| Pensacola | | | | 6 | | | | | | | | | | | 1 | | 1 | | | | 1 | | | | 9 | 1 | 1 | |
| Poona | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Potsdam | | | | 1 | | | 1 | | | | | | | | | | 1 | | | | | | | | 3 | | | 3 |
| Rissen | | | | 1 | | | 1 | | | | | | | | | | | | | | 1 | | | | 3 | | 1 | 1 |
| Saintpaul | | | 2 | 2 | | | 4 | | | | | 2 | | | 1 | | 6 | | | | 11 | 1 | 10 | | 39 | | 1 | 13 |
| Sandiego | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| Schwarzengrund | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| Senftenberg | | | | | | | 1 | | 1 | | | | | | | | | | | | | | | | 2 | | | |
| Sinesapore | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | | | 1 |
| Stanlev | | | 1 | 10 | 1 | | 5 | | | | | | 4 | | 1 | | 3 | | | | 8 | | 2 | | 35 | 1 | | 21 |
| Tennessee | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| Thompson | 2 | | | 2 | | | | | | | | | 1 | | 1 | | 1 | | | | | | 3 | | 10 | | | 1 |
| Typhi phage type: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| 38 | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| 41 variant | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| E (degraded) | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| E14 variant | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 1 | | |
| E1a | | | 16 | 3 | 2 | | 2 | | | | | | | | 1 | | | | | | 5 | | 3 | | 32 | 18 | | 22 |
| E1b | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| E9 variant | | 2 | 1 | | | | | | | | | | | | | | 5 | | | | 2 | | | | 10 | 6 | | 7 |
| G3 | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| G4 | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | 2 | 1 | | 1 |
| O variant | | | | | | | | | | | | | | | | | 2 | | | | | | | | 2 | | | 2 |
| Untypable | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| Typhimurium | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | |
| Typhimurium phage type: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | 1 | 1 | | | | | | | | 1 | | | | 2 | | | | 3 | 2 | 6 | | 16 | | 1 | |
| 8 | | | 1 | | 1 | | | | | | | | | | | | | | | | | | 1 | | 3 | 1 | | |
| 9 | | 3 | 1 | 2 | | | 1 | | | | | 2 | | | | | 4 | | | | 2 | | 6 | | 21 | | | 4 |
| 10 | | | 1 | 3 | | | 2 | | | | | | | | | | 2 | | | | 2 | | 2 | | 12 | | | 10 |
| 12a | | | 1 | 2 | | | | | | | | | | | | | 1 | | | | 1 | 1 | 1 | | 7 | 1 | | |
| 23 | | 1 | 6 | 5 | | | 3 | | | | | | | | | | 1 | | | | | | | | 16 | | 1 | |
| 26 | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | | | |
| 42 | | | 1 | | | | 1 | | | | | | 1 | | | | | | | | 6 | | 4 | | 13 | | | |
| 56 variant | 3 | 4 | 3 | 15 | 3 | | 5 | | | | | 1 | 2 | | 5 | | 7 | | | | 10 | 2 | 8 | 2 | 70 | | | |
| 60 | | | | | | | 1 | | | | | | | | | | 1 | | | | | | | | 2 | | | |
| 60 variant | | | | 1 | | | 1 | | | | | | | | | | 2 | | | | | | | | 4 | | | |
| 101 | | | 1 | 7 | | | 2 | | | | | | | | 4 | | 3 | | | 1 | 21 | | 20 | 1 | 60 | | 1 | 1 |
| 102 | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| 104 | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | | | 1 |
| 108/170 | | | | 1 | | | 1 | | | | | | | | | | | | | | | | 2 | | 4 | | | |
| 120 | | | | | 1 | | | | | | | | | | | | | | | | | | 2 | | 3 | | | 2 |
| 135 | 1 | | 2 | 6 | 4 | | 8 | | | | | 1 | 2 | | 1 | | 4 | | | | 3 | | 7 | | 39 | | | 2 |
| 154 | | | | 1 | | | | | | | | | | | | | 1 | | | | | | | | 2 | | | |
| 156 | | | 1 | 1 | | | | | | | | 2 | | | 2 | | 3 | | | | | | 3 | | 12 | | | |
| 160 | | | | | | | | | | | | | | | | | | | | | | | 7 | | 7 | | | |
| 185 | | | | 1 | | | | | | | | | | | | | | | | | 1 | | 1 | | 3 | | | |
| 193 | | | | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | 3 | | | 1 |
| 195 | | | | 4 | | | | | | | | | | | | | | | | | | | | | 4 | | | |
| 206 | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | | 2 | | | |
| U274 | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | 2 | | | 2 |
| U302 | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | |
| RDNC | | 1 | 4 | 7 | 1 | | 3 | | 1 | | | | | | 1 | | 2 | | 1 | 1 | 2 | | 3 | | 27 | 2 | | 3 |
| Untypable | | | 1 | 3 | | | 1 | | | | | | 1 | | 2 | | | | | | | | 1 | | 9 | | | 4 |
| Uganda | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | | 2 | | 1 | 1 |
| Victoria | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | 1 |
| Virchow | | | 3 | | | | | | 1 | | | | | | | | | | | | | | 3 | | 7 | | | 4 |
| Wangata | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Weltevreden | | | 4 | 5 | 1 | | 1 | | 1 | | | | 1 | | 1 | | | | | | 5 | | 2 | | 21 | | | 11 |
| Wohlen | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | | | |
| Zanzibar | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| Subsp. (I) ser. 4,12 : - : - (non-motile) | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | |
| Subsp. (I) ser. 4,12 : - : 1,2 | | | | | | | | | | | | | | | | | | | | | 2 | | 2 | | 4 | | | |
| Subsp. (I) ser. 4,12 : b : - | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | 2 | | | |
| Subsp. (I) ser. 4,12 : i : - | | | | 2 | | | 1 | | | | | | | | | | | | | | 1 | | | | 4 | | | 4 |
| Subsp. (I) ser. 4,5,12 : b : - | | | | 9 | | | 1 | | | | | | 1 | | | | 2 | | | | 1 | | 1 | | 15 | | | 6 |
| Subsp. (I) ser. 4,5,12 : d : - | | | | 1 | | | | | | | | | | | 1 | | | | | | | | | | 2 | | | 2 |
| Subsp. (I) ser. 4,5,12 : i : - | | | 4 | 10 | | | 2 | | | | | | | | 1 | | 3 | | | | 3 | | 3 | | 26 | 1 | | 18 |
| Subsp. (I) ser. 6,7 : - : 1,5 | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | |
| Subsp. (I) ser. 6,7 : k : - | 3 | 1 | | 4 | | | | | | | | | | | | | | | | | | | | | 8 | 1 | | |
| Subsp. (I) ser. 8 : e,h : - | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| Subsp. (I) ser. 9,12 : - : - (non-motile) | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 |
| Subsp. (I) ser. 9,12 : - : 1,5 | | | | 1 | | | | | | | | | | | | | 2 | | | | | | | | 3 | | | 3 |
| Subsp. (I) ser. 9,46 : - : - | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | |
| Subsp. (I) ser. 3,10 : - : z6 | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 1 |
| Subsp. (I) ser. 3,10 : r : - | | | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | 1 | | 4 | | | 3 |
| Subsp. (I) ser. 13,23 : - : 1,5 | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Subsp. (I) ser. Rough : - : - | | | 1 | | | | | | | | | | | | 1 | | | | | | | | | | 2 | | 1 | |
| Subsp. (I) ser. Rough : d : 1,2 | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| Subsp. (I) ser. Rough : i : 1,2 | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | | | |
| Subsp. (I) ser. Rough : lv : e,n,z15 | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | |
| Subsp. (I) ser. Rough : m,t : - | | | | | | | | | | | | 1 | | | | | | | | | 1 | | | | 2 | | | 2 |
| Subsp. (IIIb) ser. 61 : lv : 1,5,7 | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | 1 |
| Subsp. (IIIb) ser. 61 : lv : z35 | | | | 1 | | | | | | | | | | | | | | | | | 1 | | | | 2 | | | 1 |
| Subsp. (IV) ser. 43 : z4,z23 : - | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | | | |
| **Total** | **15** | **30** | **99** | **226** | **40** | **0** | **117** | **0** | **6** | **0** | **0** | **20** | **33** | **0** | **52** | **0** | **112** | **0** | **2** | **14** | **180** | **9** | **166** | **4** | **1125** | **61** | **27** | **374** |

| | |
|---|---|
| *Salmonella* Typhimurium | 346 |
| Other serotypes | 779 |

Household clusters 8

**First Human isolate confirmed in New Zealand**

*S.* Enteritidis phage type 1c
*S.* Enteritidis phage type 14c
*S.* Enteritidis phage type 49
*S.* Enteritidis phage type 50
*S.* Typhimurium phage type U274

**Mixed infections**

*S.* Typhimurium phaae tvoe 108/170 and *S.* Typhimurium phaae tvoe 12a
*S.* subsp. (I) ser. Rough : lv : e,n,z15 and *S.* Brandenburg
*S.* subsp. (I) ser. 4,5,12 : b : - and *S.* Paratyphi A
*S.* subsp. (I) ser. Rough : - : - and *S.* Brandenburg
*S.* subsp. (I) ser. Rough : b : e,n,x and *S.* Abony
*S.* Infantis and *S.* Typhi phage type E9 variant
*S.* Enteritidis phage type 21 and *S.* Enteritidis phage type 43