Epidemiology and Infection

Incubation Period for Outbreak-Associated, Non-Typhoidal Salmonellosis Cases, Minnesota, 2000–2015

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Supplementary Material

Table S1. Characteristics of non-typhoidal foodborne salmonellosis outbreaks, Minnesota, 2000­–2015, ordered by median incubation period (n=82).

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  | Incubation period (hrs)a | | |
| Outbreak year | Serotype | Vehicle | Vehicle class | Settingb | Total No. casesc | No. Cases with known incubation periodd | Median | Interquartile range | Range |
| 2015 | Enteritidis | Stuffed chicken | Chicken | Product | 5 | 1 | 7.0 | … | … |
| 2010 | Infantis | Macaroni salad | Prepared food | Restaurant/event | 22 | 21 | 13.5 | 9.5-18.0 | 0.5-28.0 |
| 2012 | Enteritidis | Ground beef | Beef | Restaurant/event | 25 | 4 | 13.5 | 6.0-26.5 | 2.0-36.0 |
| 2006 | Typhimurium | Carrot curry soup | Prepared food | Restaurant/event | 40 | 40 | 15.0 | 11.8-21.0 | 6.0-85.0 |
| 2006 | Typhimurium | Stuffed chicken[19] | Chicken | Product | 3 | 1 | 16.5 | … | … |
| 2013 | Multiple | Multiple | Prepared food | Restaurant/event | 121 | 86 | 20.0 | 15.0-29.3 | 2.0-299.0 |
| 2009 | subspecies IV | Turkey gravy[20] | Prepared food | Restaurant/event | 19 | 15 | 20.0 | 17.0-23.5 | 15.5-45.5 |
| 2012 | Bareilly | Tuna sushi | Fish | Restaurant/event | 2 | 1 | 21.0 | … | … |
| 2011 | Muenchen | Iceberg lettuce | Produce | Product | 11 | 2 | 21.9 | 17.0-26.8 | 17.0-26.8 |
| 2000 | Heidelberg | Smoked turkey | Turkey | Restaurant/event | 14 | 9 | 23.0 | 12.0-27.0 | 6.5-46.0 |
| 2010 | Enteritidis | Chili rellano | Egg/egg dish | Restaurant/event | 7 | 7 | 24.0 | 16.0-71.0 | 14.5-138.5 |
| 2003 | 9,12:Nonmotile | Beef | Beef | Restaurant/event | 4 | 1 | 29.5 | … | … |
| 2000 | Enteritidis | Multiple egg dishes | Egg/egg dish | Restaurant/event | 14 | 7 | 30.0 | 11.5-33.0 | 7.5-125.5 |
| 2012 | Saintpaul | Suspect smoked turkey | Turkey | Restaurant/event | 2 | 1 | 30.0 | … | … |
| 2012 | Newport | Unknown | Unknown | Restaurant/event | 6 | 4 | 31.5 | 23.0-51.0 | 22.0-63.0 |
| 2004 | Agona | Turkey | Turkey | Restaurant/event | 24 | 22 | 31.8 | 25.5-57.0 | 1.0-144.0 |
| 2013 | Newport | Beef | Beef | Product | 12 | 3 | 32.0 | 32.0-73.5 | 32.0-73.5 |
| 2004 | Newport | Turkey | Turkey | Restaurant/event | 49 | 43 | 32.0 | 22.0-50.8 | 2.0-173.0 |
| 2007 | Newport | Unknown | Unknown | Restaurant/event | 11 | 11 | 34.5 | 30.5-59.5 | 16.5-139.4 |
| 2012 | Montevideo | Unknown | Unknown | Restaurant/event | 11 | 9 | 39.5 | 36.5-126.0 | 15.5-625.0 |
| 2011 | Enteritidis | Pollo guisado | Chicken | Restaurant/event | 3 | 2 | 40.3 | 28.5-52.0 | 28.5-52.0 |
| 2005 | Enteritidis | Stuffed chicken[19] | Chicken | Product | 27 | 1 | 40.5 | … | … |
| 2000 | Heidelberg | Unknown | Multiple | Restaurant/event | 5 | 4 | 42.0 | 4.3-77.5 | 1.5-78.0 |
| 2003 | Enteritidis | Eggs | Egg/egg dish | Product | 6 | 4 | 44.0 | 13.6-95.3 | 11.3-118.5 |
| 2013 | Livingstone | Goat | Other meat | Restaurant/event | 4 | 1 | 45.0 | … | … |
| 2008 | Heidelberg | Homemade ice cream | Egg/egg dish | Restaurant/event | 6 | 5 | 46.0 | 43.0-61.0 | 37.0-61.0 |
| 2006 | Newport | Chicken | Chicken | Restaurant/event | 18 | 14 | 46.8 | 24.0-141.0 | 11.5-322.0 |
| 2002 | Enteritidis | Fried rice with egg | Egg/egg dish | Restaurant/event | 18 | 14 | 46.9 | 41.5-108.0 | 33.0-118.5 |
| 2001 | Enteritidis | Eggs benedict | Egg/egg dish | Restaurant/event | 46 | 25 | 49.0 | 31.0-64.5 | 4.0-146.0 |
| 2010 | Enteritidis | Hollandaise | Egg/egg dish | Restaurant/event | 4 | 1 | 50.0 | … | … |
| 2008 | Enteritidis | Sandwiches[21] | Prepared food | Restaurant/event | 15 | 8 | 51.8 | 38.3-76.5 | 24.0-112.3 |
| 2006 | Typhimurium | Tomato[22] | Produce | Product | 14 | 5 | 52.0 | 41.0-83.0 | 32.0-96.0 |
| 2002 | Newport | Unknown | Unknown | Restaurant/event | 15 | 10 | 54.1 | 50.0-116.5 | 12.8-184.3 |
| 2001 | Newport | Unknown | Unknown | Restaurant/event | 9 | 3 | 55.0 | 54.0-98.0 | 54.0-98.0 |
| 2013 | 4,12:i:- | Watermelon | Produce | Product | 6 | 1 | 55.0 | … | … |
| 2010 | Enteritidis | Unknown | Unknown | Restaurant/event | 7 | 6 | 55.0 | 22.0-76.0 | 20.0-94.0 |
| 2010 | Baildon | Unknown | Unknown | Product | 5 | 1 | 55.5 | … | … |
| 2011 | Typhimurium | Watermelon | Produce | Product | 16 | 4 | 56.5 | 43.8-63.0 | 32.5-68.0 |
| 2005 | Enteritidis | Unknown | Unknown | Restaurant/event | 3 | 2 | 56.8 | 25.0-88.5 | 25.0-88.5 |
| 2014 | Javiana | Pulled turkey | Turkey | Product | 20 | 2 | 57.3 | 30.5-84.0 | 30.5-84.0 |
| 2007 | Typhimurium | Tomato | Produce | Restaurant/event | 23 | 20 | 57.8 | 30.3-75.5 | 12.0-124.0 |
| 2012 | Enteritidis | Suspect eggs | Egg/egg dish | Restaurant/event | 2 | 2 | 57.8 | 46.5-69.0 | 46.5-69.0 |
| 2012 | Newport | Chicken alfredo | Chicken | Restaurant/event | 7 | 6 | 60.0 | 28.5-109.0 | 24.5-148.5 |
| 2003 | Heidelberg | Eggs and pancakes | Egg/egg dish | Restaurant/event | 53 | 38 | 60.0 | 41.0-119.0 | 8.0-582.0 |
| 2010 | Muenchen | Unknown | Unknown | Restaurant/event | 7 | 7 | 60.0 | 26.5-71.0 | 25.5-72.0 |
| 2001 | Enteritidis | Eggs | Egg/egg dish | Restaurant/event | 16 | 8 | 61.3 | 44.0-76.3 | 5.0-79.0 |
| 2003 | Enteritidis | Eggs | Egg/egg dish | Product | 23 | 17 | 63.0 | 29.0-93.0 | 10.5-165.5 |
| 2015 | Enteritidis | Stuffed chicken | Chicken | Product | 8 | 1 | 65.0 | … | … |
| 2012 | Enteritidis | Swiss meringue buttercream | Egg/egg dish | Restaurant/event | 7 | 5 | 65.0 | 51.0-85.0 | 47.0-89.0 |
| 2004 | Heidelberg | Egg bake | Egg/egg dish | Restaurant/event | 5 | 4 | 67.5 | 44.0-100.0 | 32.0-121.0 |
| 2015 | Newport | Tomato | Produce | Restaurant/event | 120 | 74 | 68.0 | 25.5-118.0 | 2.0-286.0 |
| 2006 | Miami | Unknown | Unknown | Restaurant/event | 4 | 4 | 69.8 | 43.5-240.8 | 43.0-386.0 |
| 2007 | Enteritidis | Salsa | Prepared food | Restaurant/event | 18 | 10 | 71.3 | 52.5-116.5 | 3.5-212.0 |
| 2014 | Enteritidis | Dinner rolls | Prepared food | Restaurant/event | 36 | 19 | 72.0 | 15.5-109.0 | 4.0-290.0 |
| 2013 | Javiana | Unknown | Unknown | Restaurant/event | 7 | 3 | 72.0 | 66.0-102.0 | 66.0-102.0 |
| 2015 | Poona | Cucumber | Produce | Product | 48 | 9 | 72.0 | 48.0-110.0 | 2.5-187.5 |
| 2005 | Typhimurium | Cake mix | Dry, packaged food | Restaurant/event | 5 | 3 | 75.0 | 64.5-84.0 | 64.5-84.0 |
| 2002 | Enteritidis | Stuffed chicken | Chicken | Restaurant/event | 2 | 1 | 78.0 | … | … |
| 2008 | Saintpaul | Jalapeno peppers[23] | Produce | Product | 33 | 17 | 79.0 | 55.0-113.5 | 12.0-212.5 |
| 2003 | Saintpaul | Multiple | Multiple | Restaurant/event | 5 | 2 | 79.4 | 71.5-87.3 | 71.5-87.3 |
| 2002 | Typhimurium | Unknown | Unknown | Restaurant/event | 19 | 16 | 80.5 | 58.8-118.0 | 32.0-285.0 |
| 2004 | Enteritidis | Suspect eggs | Egg/egg dish | Restaurant/event | 3 | 2 | 81.0 | 80.0-82.0 | 80.0-82.0 |
| 2008 | Enteritidis | Turkey gravy | Turkey | Restaurant/event | 46 | 43 | 87.5 | 65.5-119.5 | 19.5-213.5 |
| 2007 | Agona | Unknown | Unknown | Restaurant/event | 3 | 2 | 87.5 | 54.0-121.0 | 54.0-121.0 |
| 2014 | Miami | Unknown | Unknown | Restaurant/event | 7 | 4 | 87.8 | 44.3-130.5 | 34.0-140.0 |
| 2006 | Typhimurium | Unknown | Unknown | Restaurant/event | 4 | 4 | 91.3 | 34.8-119.5 | 5.0-121.0 |
| 2012 | Enteritidis | Hollandaise | Egg/egg dish | Restaurant/event | 4 | 4 | 91.3 | 48.6-198.8 | 30.3-282.0 |
| 2008 | Enteritidis | Stuffed chicken | Chicken | Product | 7 | 1 | 93.0 | … | … |
| 2015 | Virchow | Lobster guacamole | Prepared food | Restaurant/event | 9 | 9 | 93.5 | 47.0-134.0 | 6.0-307.0 |
| 2010 | Enteritidis | Stuffed chicken | Chicken | Restaurant/event | 7 | 6 | 94.0 | 68.0-120.5 | 59.5-146.5 |
| 2015 | Paratyphi B var. L(+) tartrate+ | House salad | Produce | Restaurant/event | 11 | 3 | 97.0 | 66.5-148.2 | 66.5-148.2 |
| 2015 | Agona | Pork | Pork | Restaurant/event | 10 | 2 | 98.3 | 52.5-144.0 | 52.5-144.0 |
| 2015 | 4,5,12:i:- | Guacamole | Prepared food | Restaurant/event | 7 | 3 | 101.3 | 8.8-129.0 | 8.8-129.0 |
| 2015 | 4,5,12:i:- | Coleslaw | Prepared food | Restaurant/event | 9 | 2 | 113.3 | 49.0-177.5 | 49.0-177.5 |
| 2000 | Typhimurium | Unknown | Turkey | Restaurant/event | 4 | 2 | 118.3 | 96.5-140.0 | 96.5-140.0 |
| 2006 | Enteritidis | Unknown | Unknown | Restaurant/event | 3 | 2 | 118.5 | 72.0-165.0 | 72.0-165.0 |
| 2012 | Javiana | Cucumber or iceberg lettuce | Produce | Product | 4 | 1 | 137.0 | … | … |
| 2005 | Manhattan | Pork or cilantro | Unknown | Product | 6 | 2 | 145.0 | 107.0-183.0 | 107.0-183.0 |
| 2011 | Newport | Cucumber or tomato | Produce | Product | 6 | 3 | 147.0 | 32.0-149.5 | 32.0-149.5 |
| 2011 | Typhimurium | Unknown | Unknown | Restaurant/event | 8 | 4 | 152.0 | 109.5-180.25 | 92.0-183.5 |
| 2010 | Enteritidis | Multiple egg dishes | Egg/egg dish | Restaurant/event | 3 | 1 | 156.2 | … | … |

a Median incubations include only cases with a known incubation period.

b Restaurant/event: transmission occurred at a single foodservice establishment or restaurant chain, or were associated with a single event. Product: vehicle distributed to multiple food service establishments and/or prepared in multiple private homes after purchase from a retail location.

c For multi-state outbreaks, only Minnesota cases were included in incubation period calculations.

d Culture-confirmed and probable cases with exact hour of exposure and onset of illness.