



CDC 2011 Estimates: Findings

CDC estimates that each year roughly 1 in 6 Americans (or 48 million people) gets sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases.

Please visit the [CDC Online Newsroom \(/media/\)](/media/) for the December 15, 2010 [media briefing \(/media/pressrel/2010/a101215.html\)](/media/pressrel/2010/a101215.html), [transcript \(/media/transcripts/2010/t101215.html\)](/media/transcripts/2010/t101215.html), and [press release \(/media/pressrel/2010/r101215.html\)](/media/pressrel/2010/r101215.html); [read our feature on \(/Features/dsFoodborneEstimates/\)](/Features/dsFoodborneEstimates/) 2011 Estimates of Foodborne illness in the United States; and also hear the [Emerging Infectious Diseases](#) (<http://wwwnc.cdc.gov/eid/content/17/1/contents.htm>)
 Podcast: [New U.S. Foodborne Illness Estimates](#) (<http://www2c.cdc.gov/podcasts/player.asp?f=4485979>)

CDC has estimates for two major groups of foodborne illnesses:

Known foodborne pathogens — 31 pathogens known to cause foodborne illness. Many of these pathogens are tracked by public health systems that track diseases and outbreaks.

***Unspecified agents** — Agents with insufficient data to estimate agent-specific burden; known agents not yet identified as causing foodborne illness; microbes, chemicals, or other substances known to be in food whose ability to cause illness is unproven; and agents not yet identified. Because you can't "track" what isn't yet identified, estimates for this group of agents started with the health effects or symptoms that they are most likely to cause—acute gastroenteritis.

Table 1. Estimated annual number of domestically acquired, foodborne illnesses, hospitalizations, and deaths due to 31 pathogens and unspecified agents transmitted through food, United States

Foodborne Agents	Estimated annual number of illnesses (90% credible interval)	%	Estimated annual number of hospitalizations (90% credible interval)	%	Estimated annual number of deaths (90% credible interval)	%
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31 known pathogens	9.4 million (6.6–12.7 million)	20	55,961 (39,534–75,741)	44	1,351 (712–2,268)	44
Unspecified agents	38.4 million (19.8–61.2 million)	80	71,878 (9,924–157,340)	56	1,686 (369–3,338)	56
Total	47.8 million (28.7–71.1 million)	100	127,839 (62,529–215,562)	100	3,037 (1,492–4,983)	100

To estimate the total number of foodborne illnesses, CDC estimated the number of illnesses caused by both known and unspecified agents. We also estimated the number of hospitalizations and deaths caused by these illnesses. Table 1 provides the estimates due to known pathogens, unspecified agents, and the total burden.

Pathogens causing the most illnesses, hospitalizations, and deaths each year

Eight known pathogens account for the vast majority of illnesses, hospitalizations, and deaths. Tables 2–4 list the top five pathogens causing illness, hospitalization, and death.

Table 2. Top five pathogens contributing to domestically acquired foodborne illnesses

Pathogen	Estimated number of illnesses	90% Credible Interval	%
Norovirus (/ncidod/dvrd/revb/gastro/norovirus.htm)	5,461,731	3,227,078 – 8,309,480	58
Salmonella (/salmonella/index.html), nontyphoidal	1,027,561	644,786– 1,679,667	11
Clostridium perfringens (/foodborneburden/clostridium-perfringens.html)	965,958	192,316– 2,483,309	10
Campylobacter spp (/nczved/divisions/dfbmd/diseases/campylobacter/). (/nczved/divisions/dfbmd/diseases/campylobacter/)	845,024	337,031– 1,611,083	9
Staphylococcus aureus (/nczved/divisions/dfbmd/diseases/staphylococcal/)	241,148	72,341– 529,417	3
Subtotal			91

Table 3. Top five pathogens contributing to domestically acquired foodborne illnesses resulting in hospitalization

Pathogen	Estimated number of hospitalizations	90% Credible Interval	%
Salmonella (/salmonella/index.html), nontyphoidal	19,336	8,545– 37,490	35

Norovirus (/ncidod/dvrd/revb/gastro/norovirus.htm)	14,663	8,097– 23,323	26
Campylobacter spp. (/nczved/divisions/dfbmd/diseases/campylobacter/). (/nczved/divisions/dfbmd/diseases/campylobacter/)	8,463	4,300– 15,227	15
Toxoplasma gondii (/parasites/toxoplasmosis/)	4,428	3,060– 7,146	8
E.coli (/ecoli/) (STEC) O157 (/ecoli/)	2,138	549– 4,614	4
Subtotal			88

Table 4. Top five pathogens contributing to domestically acquired foodborne illnesses resulting in death

Pathogen	Estimated number of deaths	90% Credible Interval	%
Salmonella (/salmonella/index.html), nontyphoidal	378	0–1,011	28
Toxoplasma gondii (/parasites/toxoplasmosis/)	327	200–482	24
Listeria monocytogenes (/nczved/divisions/dfbmd/diseases/listeriosis/)	255	0–733	19
Norovirus (/ncidod/dvrd/revb/gastro/norovirus.htm)	149	84–237	11
Campylobacter spp. (/nczved/divisions/dfbmd/diseases/campylobacter/)	76	0–332	6
Subtotal			88

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