TABLE 3. Number of reported foodborne disease outbreaks and outbreak-associated illnesses, by etiology (confirmed and suspected) and place where food was eaten\* --United States, 2009-2010

									Outbreaks	s and Illnesse:	Attributed to a	Single Consump	otion Location							
		Banquet Facility (food prepared and served on-site)		Camp		Caterer (food prepared off-site from where server)		Child day care center		Church, temple, religous location		Fair, festival, other temp or mobile services		Total Outbreaks and Illnesses attributed to a single consumption location		Total Outbreaks and Illnesses attributed to multiple consumption locations		Total Outbreaks and Illnesses attributed to a consumption location not known or reported		oreaks and
Etiology	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses
Bacterial																				
Salmonella <sup>§</sup>	5	223	3	209	3	42	1	25	8	126	7	127	155	2973	20	2669	68	1447	243	7089
Clostridium perfringens	3	154	1	54	4	462	0	0	1	135	0	0	47	1863	3	99	7	1263	57	3225
Escherichia coli, Shiga toxin-producing¶	0	0	1	2	0	0	1	3	0	0	1	6	42	449	7	80	11	122	60	651
Campylobacter"	1	68	0	0	0	0	0	0	0	0	0	0	33	445	1	17	6	138	40	600
Bacillus <sup>§§</sup>	2	35	0	0	0	0	0	0	0	0	0	0	22	394	2	23	1	10	25	427
Staphylococcus enterotoxin#	1	67	0	0	0	0	0	0	2	39	0	0	18	213	0	0	1	39	19	252
Shigella 555	0	0	0	0	0	0	0	0	0	0	0	0	6	154	2	354	0	0	8	508
Clostridium botulinum	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	1	2	3	6
Other bacterial	0	0	0	0	0	0	0	0	0	0	0	0	1	167	0	0	1	7	2	174
Listeria 11	0	0	0	0	0	0	0	0	0	0	0	0	8	39	0	0	1	10	9	49
Vibrio parahaemolyticus	0	0	0	0	0	0	0	0	0	0	0	0	6	30	0	0	1	3	7	33
Vibrio other	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	1	4
Enterococcus faecalis	0	0	0	0	0	0	0	0	0	0	0	0	1	13	0	0	0	0	1	13
Escherichia coli, Enteropathogenic	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0	1	7
Escherichia coli, Enterotoxigenic	1	19	0	0	0	0	0	0	0	0	0	0	1	19	1	58	1	8	3	85
Brucella sp	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	1	4
Bacterial Total	13	566	5	265	7	504	2	28	11	300	8	133	345	6778	36	3300	99	3049	480	13127
Chemical and toxin																				
Scombroid toxin / Histamine	0	0	0	0	0	0	0	0	0	0	0	0	12	53	0	0	6	23	18	76
Ciguatoxin	ō	0	0	0	0	0	0	0	0	0	0	0	12	49	0	0	3	12	15	61
Other chemical	0	0	0	0	0	0	0	0	0	0	0	0	3	11	0	0	0	0	3	11
Mycotoxins	0	0	0	0	0	0	0	0	0	0	0	0	2	8	0	0	0	0	2	8
Paralytic shellfish poison	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	3
Pesticides	0	0	0	0	0	0	0	0	0	0	0	0	2	42	0	0	0	0	2	42
Plant/Herbal toxins	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	1	6
Other natural toxins	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	2
Chemical and toxin Total	o o	0	0	0	0	0	0	0	0	0	0	0	33	171	0	0	10	38	43	209
Parasitic Parasitic	ľ	Ū		·		·		·		·		•	33		•	·	10	30		203
Cyclospora	0	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	1	8
Giardia lamblia	-	0	-	-	-	-		0	-	0			1	-	0	0			1	5
Parasitic Total	0	0	0	0	0	0 <b>0</b>	0	0 <b>0</b>	0	0 <b>0</b>	0	0	1 2	5 <b>13</b>	0	0	0 <b>0</b>	0	2	13
Viral	ľ	· ·		·		•		•		·		•	_	13	•	·		•	_	13
Norovirus	37	1214	4	167	4	132	0	0	13	452	0	0	381	7571	26	953	84	1213	491	9737
Hepatitis A					-		-						4	47	0	953	0	0	491	47
· ·	0	0	0	0	0	0	0	0	0	0	0	0	1	28	0		0		4	
Rotavirus	0	0	0	0	0	0	0	0	0	0	0	0			-	0		0		28
Other viral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13	407	13
Viral Total	37	1214	4	167	4	132	0	0	13	452	0	0	386	7646	26	953	85	1226	497	9825
Known Etiology***	50	1780	9 2	432 57	11	636 101	2	28 0	24	752	8	133	766	14608	62	4253	194	4313	1022	23174
Unknown Etiology <sup>™</sup>	23	673		5/	4	101	U	U	4	62	3	28	310	3442	22	449	143	1563	475	5454
Multiple Etiologies	0	0	1	5	2	36	0	0	0	0	1	59	23	681	4	86	3	49	30	816
Total	73	2453	12	494	17	773	2	28	28	814	12	220	1099	18731	88	4788	340	5925	1527	29444

<sup>\*</sup> If at least one etiology was laboratory-confirmed, the outbreak was considered to have a confirmed etiology, If no etiology was lab-confirmed, but an etiology was reported based on clinical or epidemiologic features, the outbreak was considered to have a suspected etiology.

- §§§ Shigella sonnei (8 confirmed outbreaks)
- ¶¶ Listeria monocytogenes (9 confirmed outbreaks)

- ††† An etiologic agent was not confirmed or suspected based on clinical, laboratory, or epidemiologic information.
- \$\$\$\$ Due to rounding, numbers may not add up to the etiology category total or the known etiology total.

<sup>§</sup> Salmonella serotypes causing more than five outbreaks are Enteriditis (76 outbreaks), Newport (29), Typhimurium (27), Heidelberg (15), Montevideo (9), Javiana (8) and Infantis (6).

<sup>¶</sup> STEC 0111 (1 confirmed outbreak), STEC 0121:H19 (1 confirmed outbreak), O145 (1 confirmed outbreak), STEC 0157:H7 (53 confirmed outbreaks), O26 (1 confirmed outbreak), O26:H11 (1 confirmed outbreak)

<sup>\*\*</sup> Campylobacter jejuni (31 confirmed outbreaks, 4 suspected outbreaks) , Campylobacter unknown (3 confirmed outbreaks, 2 suspected outbreaks)

<sup>§§</sup> Bacillus cereus (12 confirmed outbreaks, 12 suspected outbreaks), Bacillus unknown (1 suspected outbreak)

<sup>††</sup> Staphylococcus aureus (9 confirmed outbreaks, 10 suspected outbreaks)

<sup>\*\*\*</sup> The denominator for the total etiology percentages is the Known Etiology total. The denominator for the Known Etiology, Unknown Etiology, and Multiple Etiologies percentages is the Total.

TABLE 3. Number of reported foodborne disease outbreaks and outbreak-associated illnesses, by etiology (confirmed and suspected) and place where food was eaten\* --- United States, 2009-2010

		Outbreaks and Illnesses Attributed to a Single Consumption Location    Total Outbreaks and Illnesses   Total Outbreaks and Illnesses   attributed to a consumption																		
													Total Outbreak							
i			Hospital		Nursing home, assisted living facility, home care									attributed to a single		to multiple	location not		Total outbreaks and	
Etiology	Grocery Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	, nome care Illnesses	Outbreaks	Illnesses	Picr Outbreaks	Illnesses	Priso Outbreaks	n, jaii Ilinesses	Consumption	Illnesses	Outbreaks	on locations Illnesses	repoi Outbreaks	Illnesses	Outbreaks	Illnesses
Bacterial	Outbreaks	IIIIIesses	Outbreaks	IIIIesses	Outbreaks	IIIIIesses	Outbreaks	IIIIIe22e2	Outbreaks	IIIIe2262	Outbreaks	IIIIesses	Outbreaks	illiesses	Outbreaks	illiesses	Outbreaks	IIIIIesses	Outbreaks	IIIIIesses
	_		_		_		_		_											
Salmonella §	0	0	0	0	3	54	7	123	6	99	1	184	155	2973	20	2669 99	68 7	1447	243 57	7089 3225
Clostridium perfringens	0	0	0	0	0	0	2	47	1	18	4	427	47	1863	-			1263		
Escherichia coli, Shiga toxin-producing¶	1	3	0	0	0	0	1	7	1	3	0	0	42	449	7	80	11	122	60	651
Campylobacter**	0	0	0	0	0	0	4	28	0	0	1	19	33	445	1	17	6	138	40	600
Bacillus <sup>§§</sup>	0	0	0	0	0	0	0	0	0	0	2	112	22	394	2	23	1	10	25	427
Staphylococcus enterotoxin#	0	0	0	0	0	0	1	21	0	0	0	0	18	213	0	0	1	39	19	252
Shigella 555	0	0	0	0	0	0	0	0	0	0	0	0	6	154	2	354	0	0	8	508
Clostridium botulinum	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	1	2	3	6
Other bacterial	0	0	0	0	0	0	0	0	0	0	1	167	1	167	0	0	1	7	2	174
Listeria 11	0	0	1	4	0	0	0	0	0	0	0	0	8	39	0	0	1	10	9	49
Vibrio parahaemolyticus	0	0	0	0	0	0	0	0	0	0	0	0	6	30	0	0	1	3	7	33
Vibrio other	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	1	4
Enterococcus faecalis	0	0	0	0	0	0	1	13	0	0	0	0	1	13	0	0	0	0	1	13
Escherichia coli, Enteropathogenic	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0	1	7
Escherichia coli, Enterotoxigenic	0	0	0	0	0	0	0	0	0	0	0	0	1	19	1	58	1	8	3	85
Brucella sp	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	1	4
Bacterial Total	1	3	1	4	3	54	16	239	8	120	9	909	345	6778	36	3300	99	3049	480	13127
Chemical and toxin																				
Scombroid toxin / Histamine	0	0	0	0	0	0	0	0	0	0	1	13	12	53	0	0	6	23	18	76
Ciguatoxin	0	0	0	0	0	0	1	2	0	0	1	2	12	49	0	0	3	12	15	61
Other chemical	0	0	0	0	0	0	0	0	0	0	0	0	3	11	0	0	0	0	3	11
Mycotoxins	0	0	0	0	0	0	1	2	0	0	0	0	2		0	0	0	0	2	8
Paralytic shellfish poison	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	3
Pesticides	0	0	0	0	0	0	0	0	0	0	0	0	2	42	0	0	0	0	2	42
Plant/Herbal toxins	0	0	0	0	0	0	0	0	0	0	0	0		-72	0	0	0	0	1	6
Other natural toxins	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	1	2
Chemical and toxin Total	0	0	•	0	0	0	2	4	0	0	2	15	33	2 171	0	0	10	38	43	209
Parasitic	U	U		U		U	2	•	U	U	2	13	33	171		U	10	36	43	209
																	0			
Cyclospora	0	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	-	0	1	8
Giardia lamblia	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	1	5
Parasitic Total	0	0	0	0	0	0	0	0	0	0	0	0	2	13	0	0	0	0	2	13
Viral																				
Norovirus	0	0	0	0	4	137	21	739	4	80	1	23	381	7571	26	953	84	1213	491	9737
Hepatitis A	0	0	0	0	0	0	0	0	0	0	0	0	4	47	0	0	0	0	4	47
Rotavirus	0	0	0	0	0	0	0	0	0	0	0	0	1	28	0	0	0	0	1	28
Other viral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13	1	13
Viral Total	0	0	0	0	4	137	21	739	4	80	1	23	386	7646	26	953	85	1226	497	9825
Known Etiology***	1	3	1	4	7	191	39	982	12	200	12	947	766	14608	62	4253	194	4313	1022	23174
Unknown Etiology <sup>™</sup>	0	0	0	0	1	35	16	205	4	59	4	228	310	3442	22	449	143	1563	475	5454
Multiple Etiologies	0	0	0	0	0	0	4	9	0	0	3	103	23	681	4	86	3	49	30	816
Total	1	3	1	4	8	226	1 56	1196	16	259	19	103	1099	18731	88	4788	340	49 5925	1527	816 29444

<sup>\*</sup> If at least one etiology was laboratory-confirmed, the outbreak was considered to have a confirmed etiology. If no etiology was lab-confirmed, but an etiology was reported based on clinical or epidemiologic features, the outbreak was considered to have a suspected etiology.

<sup>§</sup> Salmonella serotypes causing more than five outbreaks are Enteriditis (76 outbreaks), Newport (29), Typhimurium (27), Heidelberg (15), Montevideo (9), Javiana (8) and Infantis (6).

<sup>¶</sup> STEC 0111 (1 confirmed outbreak), STEC 0121:H19 (1 confirmed outbreak), 0145 (1 confirmed outbreak), STEC 0157:H7 (53 confirmed outbreaks), 026 (1 confirmed outbreak), 026:H11 (1 confirmed outbreak)

<sup>\*\*</sup> Campylobacter jejuni (31 confirmed outbreaks, 4 suspected outbreaks) , Campylobacter unknown (3 confirmed outbreaks, 2 suspected outbreaks)

<sup>§§</sup> Bacillus cereus (12 confirmed outbreaks, 12 suspected outbreaks), Bacillus unknown (1 suspected outbreak)

<sup>††</sup> Staphylococcus aureus (9 confirmed outbreaks, 10 suspected outbreaks)

<sup>§§§</sup> Shigella sonnei (8 confirmed outbreaks)

<sup>¶¶</sup> Listeria monocytogenes (9 confirmed outbreaks)

<sup>\*\*\*</sup> The denominator for the total etiology percentages is the Known Etiology total. The denominator for the Known Etiology, Unknown Etiology, and Multiple Etiologies percentages is the Total.

<sup>†††</sup> An etiologic agent was not confirmed or suspected based on clinical, laboratory, or epidemiologic information.

<sup>§§§§</sup> Due to rounding, numbers may not add up to the etiology category total or the known etiology total.

TABLE 3. Number of reported foodborne disease outbreaks and outbreak-associated illnesses, by etiology (confirmed and suspected) and place where food was eaten\* ---United States, 2009-2010

									Outbre	eaks and Illne	sses Attribute	ed to a Single	Consumption	Location								
	Private Home		Restaurant - "Fast- food"(drive up service or pay a		r Restaurant - other or unknown type		Restaurant - Sit-down dining		School		Workplace cafeteria		Workplace, not cafeteria		Total Outbreaks and Illnesses attributed to a single consumption location		Total Outbreaks and Illnesses attributed to multiple consumption locations		Total Outbreaks and Illnesses attributed to a consumption location not known or reported			
Etiology	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Ilinesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses	Outbreaks	Illnesses
Bacterial																						
Salmonella §	48	780	6	131	2	30	47	686	4	97	0	0	4	37	155	2973	20	2669	68	1447	243	7089
Clostridium perfringens	6	88	0	0	0	0	15	223	1	23	1	13	8	219	47	1863	3	99	7	1263	57	3225
	Ů	00	Ü	Ü		Ü	10	LLO		20		10	· ·	2.10		1000	_					
Escherichia coli, Shiga toxin-producing¶	24	298	3	41	0	0	8	26	0	0	1	60	0	0	42	449	7	80	11	122	60	651
Campylobacter"	15	264	0	0	2	16	7	31	1	5	0	0	2	14	33	445	1	17	6	138	40	600
Bacillus <sup>§§</sup>	2	7	0	0	0	0	12	75	2	147	0	0	2	18	22	394	2	23	1	10	25	427
Staphylococcus enterotoxinH	5	39	0	0	1	10	8	37	0	0	0	0	0	0	18	213	0	0	1	39	19	252
Shigella 555	1	13	1	2	0	0	4	139	0	0	0	0	0	0	6	154	2	354	0	0	8	508
Clostridium botulinum	2	4	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	1	2	3	6
Other bacterial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	167	0	0	1	7	2	174
Listeria <sup>51</sup>	7	35	0	0	0	0	0	0	0	0	0	0	0	0	8	39	0	0	1	10	9	49
Vibrio parahaemolyticus	0	0	0	0	0	0	6	30	0	0	0	0	0	0	6	30	0	0	1	3	7	33
Vibrio other	1	4	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	1	4
Enterococcus faecalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13	0	0	0	0	1	13
Escherichia coli, Enteropathogenic	0	0	0	0	0	0	1	7	0	0	0	0	0	0	1	7	0	0	0	0	1	7
Escherichia coli, Enterotoxigenic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	19	1	58	1	8	3	85
Brucella sp	1	4	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	1	4
Bacterial Total	112	1536	10	174	5	56	108	1254	8	272	2	73	16	288	345	6778	36	3300	99	3049	480	13127
Chemical and toxin																						
Scombroid toxin / Histamine	3	9	2	4	0	0	2	6	0	0	1	3	3	18	12	53	0	0	6	23	18	76
Ciguatoxin	8	37	0	0	0	0	2	8	0	0	0	0	0	0	12	49	0	0	3	12	15	61
Other chemical	1	2	0	0	0	0	1	3	0	0	0	0	1	6	3	11	0	0	0	0	3	11
Mycotoxins	0	0	0	0	0	0	1	6	0	0	0	0	0	0	2	8	0	0	0	0	2	8
Paralytic shellfish poison	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	3
Pesticides	1	3	0	0	0	0	1	39	0	0	0	0	0	0	2	42	0	0	0	0	2	42
Plant/Herbal toxins	1	6	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	1	6
Other natural toxins	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	2
Chemical and toxin Total	15	59	2	4	0	0	7	62	0	0	1	3	4	24	33	171	0	0	10	38	43	209
Parasitic																						
Cyclospora	1	8	0	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	1	8
Giardia lamblia	0	0	0	0	0	0	1	5	0	0	0	0	0	0	1	5	0	0	0	0	1	5
Parasitic Total	1	8	0	0	0	0	1	5	0	0	0	0	0	0	2	13	0	0	0	0	2	13
Viral																						
Norovirus	30	414	23	164	10	151	183	2437	14	789	4	98	29	574	381	7571	26	953	84	1213	491	9737
Hepatitis A	1	5	3	42	0	0	0	0	0	0	0	0	0	0	4	47	0	0	0	0	4	47
Rotavirus	0	0	0	0	0	0	0	0	1	28	0	0	0	0	1	28	0	0	0	0	1	28
Other viral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13	1	13
Viral Total	31	419	26	206	10	151	183	2437	15	817	4	98	29	574	386	7646	26	953	85	1226	497	9825
Known Etiology***	159	2022	38	384	15	207	299	3758	23	1089	7	174	49	886	766	14608	62	4253	194	4313	1022	23174
Unknown Etiology <sup>##</sup>	41	308	17	86	18	109	133	791	11	271	0	0	29	429	310	3442	22	449	143	1563	475	5454
			"										-								-	
Multiple Etiologies	5	58	1	155	0	0	3	34	3	117	0	0	3	105	23	681	4	86	3	49	30	816
Total	205	2388	56	625	33	316	435	4583	37	1477	7	174	81	1420	1099	18731	88	4788	340	5925	1527	29444

<sup>\*</sup> If at least one etiology was laboratory-confirmed, the outbreak was considered to have a confirmed etiology. If no etiology was lab-confirmed, but an etiology was reported based on clinical or epidemiologic features, the outbreak was considered to have a suspected etiology.

§§ Bacillus cereus (12 confirmed outbreaks, 12 suspected outbreaks), Bacillus unknown (1 suspected outbreak)

†† Staphylococcus aureus (9 confirmed outbreaks, 10 suspected outbreaks)

§§§ Shigella sonnei (8 confirmed outbreaks)

¶¶ Listeria monocytogenes (9 confirmed outbreaks)

§§§§ Due to rounding, numbers may not add up to the etiology category total or the known etiology total.

<sup>§</sup> Salmonella serotypes causing more than five outbreaks are Enteriditis (76 outbreaks), Newport (29), Typhimurium (27), Heidelberg (15), Montevideo (9), Javiana (8) and Infantis (6).

<sup>¶</sup> STEC 0111 (1 confirmed outbreak), STEC 0121:H19 (1 confirmed outbreak), 0145 (1 confirmed outbreak), STEC 0157:H7 (53 confirmed outbreak), 026 (1 confirmed outbreak), 026:H11 (1 confirmed outbreak)

<sup>\*\*</sup> Campylobacter jejuni (31 confirmed outbreaks, 4 suspected outbreaks) , Campylobacter unknown (3 confirmed outbreaks, 2 suspected outbreaks)

<sup>\*\*\*</sup> The denominator for the total etiology percentages is the Known Etiology total. The denominator for the Known Etiology, Unknown Etiology, and Multiple Etiologies percentages is the Total.

<sup>†††</sup> An etiologic agent was not confirmed or suspected based on clinical, laboratory, or epidemiologic information.