

Annual Summary

2004

Shigella



Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Infectious Diseases
Division of Bacterial and Mycotic Diseases
Foodborne and Diarrheal Diseases Branch
Atlanta, Georgia 30333

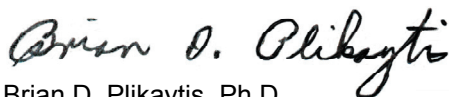




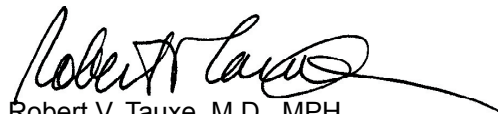
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Laboratory-Confirmed *Shigella* Surveillance Annual Summary, 2004

The Annual Summary contains surveillance data on reported laboratory-confirmed *Shigella* isolates in the United States. The National *Shigella* Surveillance System collects reports of isolates of *Shigella* from every state in the United States. This information is reported electronically through the Public Health Laboratory Information System (PHLIS) by the State Public Health Laboratory Directors and State and Territorial Epidemiologists to the Foodborne and Diarrheal Diseases Branch (FDDB) and the Biostatistics Office (BSO) of the Division of Bacterial and Mycotic Diseases in the National Center for Infectious Diseases.

The National *Shigella* Surveillance System is based on data collected by state and territorial public health laboratories. *Shigella* isolates are submitted to the state public health laboratory by clinical diagnostic laboratories. The state and territorial laboratories confirm the isolates as *Shigella*, perform subtyping, and submit the data for reporting through PHLIS. Unusual or untypable isolates are forwarded to the National *Shigella* Reference Laboratory at the Centers for Disease Control and Prevention for further characterization or confirmation. These results are reported back to the state laboratory, where they are reported to CDC through PHLIS.

The capture of isolates in the National *Shigella* Surveillance System is considered to be consistent. However, some *Shigella* isolates may not be forwarded or reported to state public health laboratories and therefore are not captured. In addition, irrespective of the surveillance system, many cases of *Shigella* illness are not reported because the ill person does not seek medical care, the health-care provider does not obtain a specimen for diagnosis or the laboratory does not perform culture for *Shigella*. The results of surveillance reported herein are therefore substantial underestimates of the true number of infections.

The number of isolates reported by state represents the state where laboratory confirmation and subtyping were performed. In some instances, the reporting state is not the same as the state of residence of the person from whom the isolate was obtained. For the Annual Summaries, duplicate records were deleted. All isolates reported herein were from infected humans.

There are 4 major subgroups of *Shigella*, designated A, B, C and D, and 44 recognized serotypes (Table A). Subgroups A, B, C and D have historically been treated as species: subgroup A for *Shigella dysenteriae*; subgroup B for *Shigella flexneri*; subgroup C for *Shigella boydii* and subgroup D for *Shigella sonnei*. These subgroups and serotypes are differentiated from one another by their biochemical traits (ability to ferment D-mannitol) and antigenic properties. The most recently recognized serotype belongs to subgroup C (*S. boydii*) (1).

Table A. Classification of *Shigella* Subgroups

Subgroup	Species	Number of serotypes	Fermentation of D-mannitol	Subgroup B group antigens
A	<i>S. dysenteriae</i>	15	-	-
B	<i>S. flexneri</i>	8 ^a	+	+
C	<i>S. boydii</i>	20	+	-
D	<i>S. sonnei</i>	1	+	-

^a = Serotypes 1-5 are subdivided into 11 subserotypes.

The Statistical Outbreak Detection Algorithm (SODA), developed by BSO and FDDB, is a statistical algorithm performed on the National Surveillance Data to detect unusual clusters of *Shigella* infection. SODA compares current *Shigella* isolates reported through PHLIS by subgroup or serotype with a 5 year historical baseline for that subgroup or serotype for the specified time period to detect unusual increases from the baseline. Analyses can be conducted at state, regional, or national levels. Since 1996, SODA has been implemented at CDC and selected state health departments. If you would like more information on SODA, please call the PHLIS Helpdesk (404) 639-3365.

Annual Highlights for 2004

A total of 9,343 *Shigella* isolates were reported from public health laboratories in 50 states in 2003 (Table 1). This represents a 50% decrease compared with 1994 and a 41% decrease from 2003. This is the lowest number of *Shigella* isolates reported since 1969. The national rate of reported *Shigella* isolates in 2004 was 3.2 per 100,000 population based on 2004 census population estimate figures for the United States.

Similar to previous years, *Shigella* was isolated frequently from children under 5 years of age, who accounted for 30.2% of all isolates. About 31.6% of all isolates came from persons aged 5-19 years, and 28.8% from persons aged 20-59, with declining numbers thereafter. The median age of patients by species is shown in Table 4. The overall distribution of *Shigella* isolates between the sexes was similar, with females accounting for 48.4% of persons from whom *Shigella* was isolated. Gender differences were most notable for a preponderance of females in four age groups, 10-19 (51.8%), 20-29 (64.4%), 30-39 (53.4%), and 70-79 (53.8%) and for a relative paucity of females in two age groups 40-49 (44.2%) and 60-69 (43.6%). These gender differences reflect similar findings among reported isolates of *Shigella sonnei*. Among reported isolates of *Shigella flexneri*, a male predominance is seen, particularly in the age groups 30-39 (64.6%) and 40-49 (65.6%). These estimates, however, are not complete since the District of Columbia did not report the age of persons from whom *Shigella* isolates were obtained. In addition, gender information was not reported for 7.1% of all isolates and age information was not reported for 3.1% of isolates.

The frequency of reported species, and the frequency of reported serotypes within these groups for all *Shigella* isolates are shown in Tables 1 and 2. Of the 9,343 isolates, 8,242 (88.2%) were subgrouped. Trends of subgroups remained constant, with subgroup D (*S. sonnei*) accounting for the largest percentage of isolates (68.9%), followed by subgroup B (*S. flexneri*, 17.2%), subgroup C (*S. boydii*, 1.8%) and subgroup A (*S. dysenteriae*, 0.4%). *Shigella* isolate serotype trends by year are shown in Table 5 and in Figure 2. Over the past decade, the numbers of reported *Shigella* isolates in subgroups A, B and C, and the proportions of all reported *Shigella* isolates due to these three subgroups have declined. Slight increases in the number of *S. boydii* isolates was observed in both 2003 and 2004. The number (1101) and the proportion (11.8%) of all reported *Shigella* isolates that were not identified as belonging to a specific subgroup also increased. The highest numbers and proportions of all reported *Shigella* isolates that were not identified as belonging to a specific subgroup were reported by North Dakota (10,100%), Nebraska (32,68%) and Nevada (24,42%).

Shigella transmission occurs via the fecal-oral route. The majority of subgroup D (*S. sonnei*) infections in the United States occur in young children and in association with crowding and poor personal hygiene. Daycare centers have been implicated in many large *S. sonnei* outbreaks that can last many months and affect many persons (2, 4). *S. sonnei* has also been transmitted through unchlorinated wading pools (5), interactive water fountains (6), food items such as parsley (7) and bean dip (8), and men who have sex

with men (MSM) (9). Until recently, the dominant subgroup causing illness among MSM was subgroup B (*S. flexneri*) (10, 11). However, in a large outbreaks among MSM in San Francisco, the dominant serotype was subgroup D (*S. sonnei*) (9). Recent trends in shigellosis in the United States are reviewed in a publication by Dr. Amita Gupta and co-authors (12).

Geographic trends by region for subgroup D (*S. sonnei*) isolates from 1990 to 2004 are illustrated in Figure 3. All nine regions registered decreases in subgroup D (*S. sonnei*) isolates from 2003 to 2004.

Acknowledgements

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TABLE 1

Laboratory confirmed *Shigella* isolates reported to the CDC by Species in 2004

Rank	Species	Reported	Percent
1	<i>S. sonnei</i>	6433	68.9
2	<i>S. flexneri</i>	1603	17.2
3	<i>S. boydii</i>	169	1.8
4	<i>S. dysenteriae</i>	37	0.4
	Sub Total	8242	88.2
	Unknown	1101	11.8
	Sub Total	1101	11.8
	Total	9343	100

TABLE 2**Laboratory confirmed *Shigella* isolates reported to the CDC by Serotype in 2004**

Rank	Serotype	Reported	Percent
1	<i>S. sonnei</i>	6433	68.9
2	<i>S. flexneri</i> unspecified	814	8.7
3	<i>S. flexneri</i> 2 unspecified	185	2.0
4	<i>S. flexneri</i> 3 unspecified	112	1.2
5	<i>S. boydii</i> unspecified	111	1.2
6	<i>S. flexneri</i> 1 unspecified	98	1.1
7	<i>S. flexneri</i> 2a	89	1.0
8	<i>S. flexneri</i> 4 unspecified	69	0.7
9	<i>S. flexneri</i> 3a	53	0.6
10	<i>S. flexneri</i> 4a	53	0.6
11	<i>S. flexneri</i> 6	42	0.5
12	<i>S. flexneri</i> 1b	27	0.3
13	<i>S. flexneri</i> variant y	26	0.3
14	<i>S. dysenteriae</i> unspecified	22	0.2
15	<i>S. boydii</i> 2	20	0.2
16	<i>S. boydii</i> 4	15	0.2
17	<i>S. flexneri</i> 3b	13	0.1
18	<i>S. boydii</i> 1	10	0.1
19	<i>S. flexneri</i> 2b	10	0.1
20	<i>S. flexneri</i> variant x	5	0.1
21	<i>S. dysenteriae</i> 1	4	0.0
22	<i>S. dysenteriae</i> 2	4	0.0
23	<i>S. dysenteriae</i> 3	4	0.0
24	<i>S. boydii</i> 10	3	0.0
25	<i>S. boydii</i> 14	3	0.0
26	<i>S. boydii</i> 5	3	0.0
27	<i>S. flexneri</i> 5 unspecified	3	0.0
28	<i>S. boydii</i> 8	2	0.0
29	<i>S. dysenteriae</i> 12	2	0.0
30	<i>S. flexneri</i> 5a	2	0.0
31	<i>S. boydii</i> 12	1	0.0
32	<i>S. boydii</i> 20	1	0.0
33	<i>S. dysenteriae</i> 4	1	0.0
34	<i>S. flexneri</i> 1a	1	0.0
35	<i>S. flexneri</i> 88-893	1	0.0
	Sub Total	8242	88.2
	Unknown	1101	11.8
	Sub Total	1101	11.8
	Total	9343	100.0

TABLE 3

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, Age Group and Sex, 2004

Species	Age Group	Sex			Total
		Female	Male	Unknown	
All <i>Shigella</i>	< 1 Year	71	84	12	167
	1 to 4 Years	1229	1297	124	2650
	5 to 9 Years	1037	1012	94	2143
	10 to 19 Years	418	357	32	807
	20 to 29 Years	592	293	34	919
	30 to 39 Years	448	368	23	839
	40 to 49 Years	261	307	22	590
	50 to 59 Years	184	143	13	340
	60 to 69 Years	68	80	8	156
	70 to 79 Years	50	39	4	93
	80+ Years	28	20	1	49
	Unknown Age	139	159	292	590
	Total		4525	4159	659
<i>S. boydii</i>	< 1 Year	3	1		4
	1 to 4 Years	12	20	2	34
	5 to 9 Years	12	10		22
	10 to 19 Years	3	9	2	14
	20 to 29 Years	15	9		24
	30 to 39 Years	8	10		18
	40 to 49 Years	12	4		16
	50 to 59 Years	8	3		11
	60 to 69 Years	1	4		5
	70 to 79 Years	2	4		6
	80+ Years	1	1		2
	Unknown Age		5	8	13
	Total		77	80	12
<i>S. dysenteriae</i>	1 to 4 Years	5	7		12
	5 to 9 Years	5	3		8
	10 to 19 Years	1			1
	20 to 29 Years	2	2	1	5
	30 to 39 Years	3	2		5
	40 to 49 Years	2	2		4
	50 to 59 Years	1			1
	80+ Years		1		1
Total		19	17	1	37
<i>S. flexneri</i>	< 1 Year	9	14	2	25
	1 to 4 Years	185	189	16	390
	5 to 9 Years	103	88	9	200
	10 to 19 Years	49	67	8	124
	20 to 29 Years	84	90	9	183
	30 to 39 Years	74	148	7	229
	40 to 49 Years	56	118	6	180
	50 to 59 Years	27	44	3	74
	60 to 69 Years	20	31		51
	70 to 79 Years	17	9	2	28
80+ Years	6	5	1	12	

TABLE 3

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, Age Group and Sex, 2004

		Sex			
Species	Age Group	Female	Male	Unknown	Total
	Unknown Age	19	36	52	107
	Total	649	839	115	1603
<i>S. sonnei</i>	< 1 Year	45	56	10	111
	1 to 4 Years	858	927	103	1888
	5 to 9 Years	777	778	85	1640
	10 to 19 Years	302	235	22	559
	20 to 29 Years	423	161	23	607
	30 to 39 Years	316	174	14	504
	40 to 49 Years	161	159	16	336
	50 to 59 Years	136	79	9	224
	60 to 69 Years	38	38	7	83
	70 to 79 Years	25	18	2	45
	80+ Years	16	12		28
	Unknown Age	94	90	224	408
	Total	3191	2727	515	6433
Unknown	< 1 Year	14	13		27
	1 to 4 Years	169	154	3	326
	5 to 9 Years	140	133		273
	10 to 19 Years	63	46		109
	20 to 29 Years	68	31	1	100
	30 to 39 Years	47	34	2	83
	40 to 49 Years	30	24		54
	50 to 59 Years	12	17	1	30
	60 to 69 Years	9	7	1	17
	70 to 79 Years	6	8		14
	80+ Years	5	1		6
	Unknown Age	26	28	8	62
	Total	589	496	16	1101

TABLE 4

Median Age of persons from whom laboratory confirmed *Shigella* isolates reported to the CDC by Species and Year for 1990-2004

Species	Year														
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<i>S. boydii</i>	11	21	21	21	22	14	9	19	21	8	25	25	21	17	21
<i>S. dysenteriae</i>	19	19	26	29	25	30	25	18	35	28	10	28	29	22	9
<i>S. flexneri</i>	19	19	20	18	20	18	22	16	17	10	10	15	21	23	20
<i>S. sonnei</i>	7	8	7	7	7	7	7	7	7	7	8	8	7	7	7
Unknown	7	8	10	7	7	6	7	25	6	7	13	23	6	6	7

NOTE:
 ** Median Calculation excludes California isolates. Age information unavailable for California prior to 2000

FIGURE 1

Median Age of persons from whom laboratory confirmed *Shigella* isolates reported to CDC by Species and Year for 1990-2004

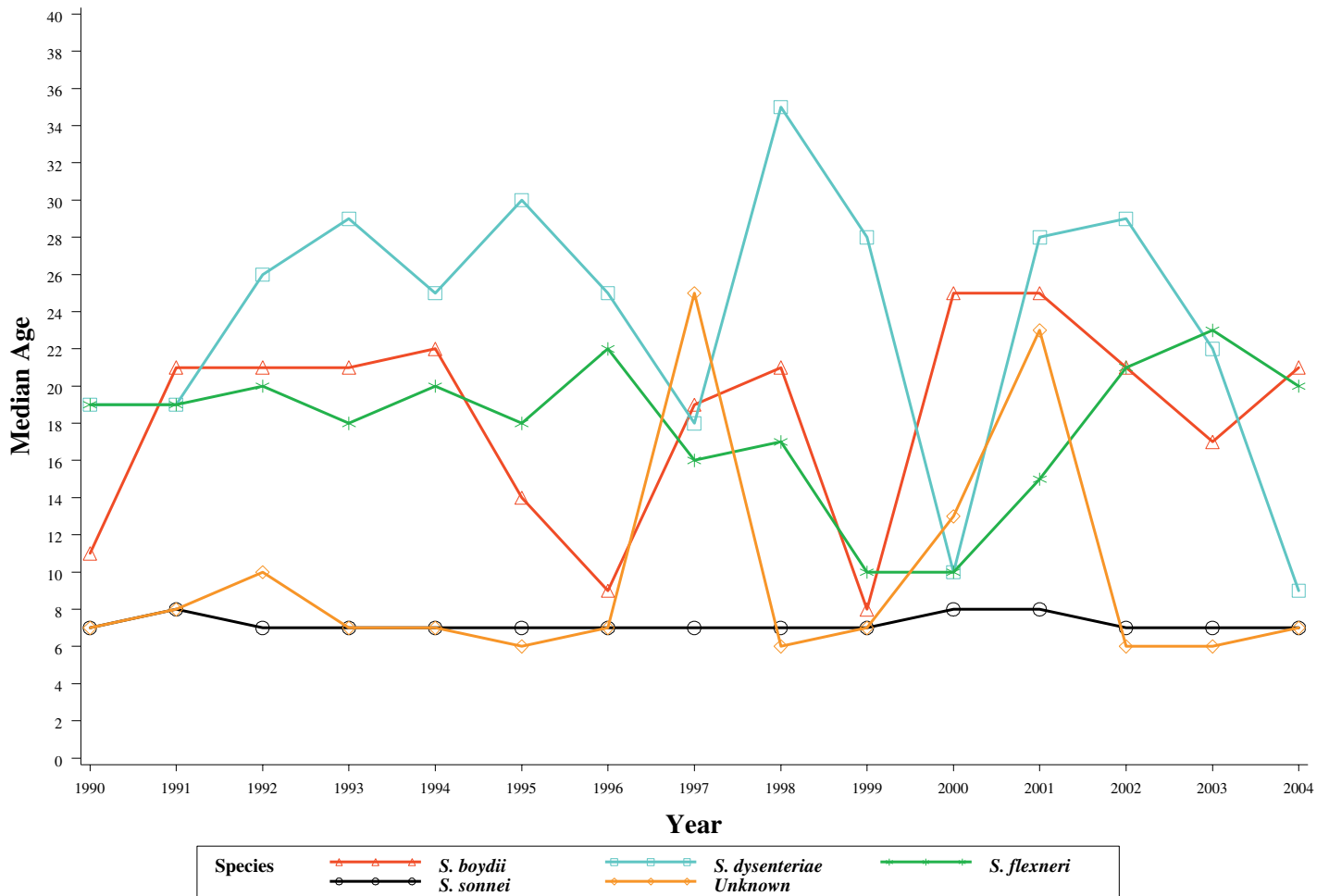


TABLE 5

Laboratory confirmed *Shigella* isolates reported to the CDC by Species and Year for 1990-2004

Species	Year															Total
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
<i>S. boydii</i>	398	312	224	221	207	229	275	253	208	158	180	126	104	148	169	3212
<i>S. dysenteriae</i>	181	145	126	105	94	90	103	79	87	49	57	48	43	43	37	1287
<i>S. flexneri</i>	4031	3712	3250	3061	3101	3019	2704	2573	2207	2025	1821	1668	1549	1745	1603	38069
<i>S. sonnei</i>	11116	10734	10106	14339	12446	14811	10262	8807	9387	7366	10803	8193	11201	10621	6433	156625
Unknown	1580	1602	1217	1785	2935	1181	727	602	596	489	639	564	2171	3394	1101	20583
Total	17306	16505	14923	19511	18783	19330	14071	12314	12485	10087	13500	10599	15068	15951	9343	219776

FIGURE 2

Laboratory confirmed *Shigella* isolates reported to CDC by Species and Year for 1990-2004

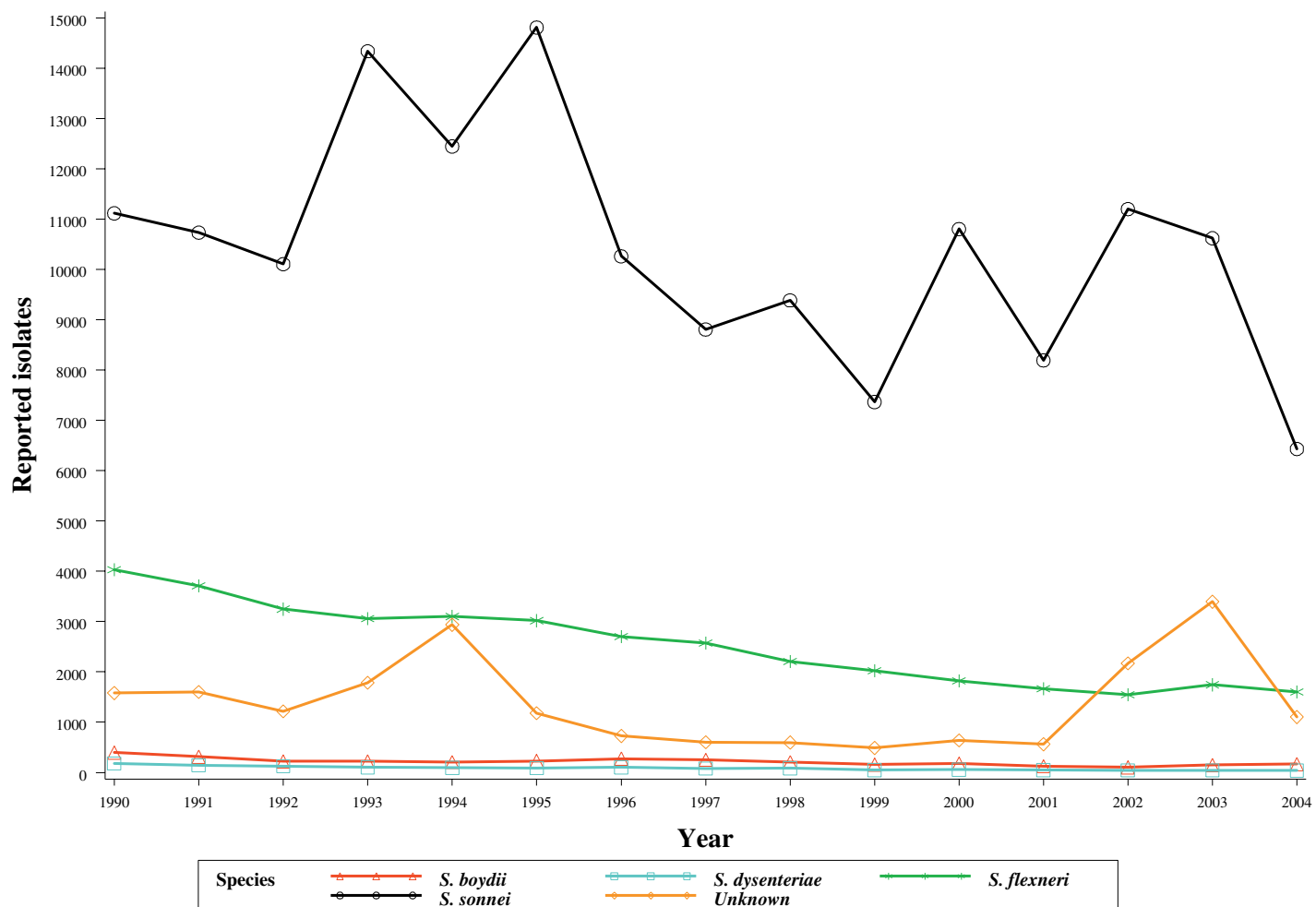


TABLE 6

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, Serotype and Year for 1990-2004

Species	Serotype	Year															Total	
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004		
<i>S. boydii</i>	<i>boydii</i> 1	12	13	7	14	9	15	22	12	12	13	13	11	7	10	10	180	
	<i>boydii</i> 2	57	55	19	54	49	60	82	54	43	28	38	26	22	29	20	636	
	<i>boydii</i> 3						2		2	2	2	2	3				13	
	<i>boydii</i> 4	11	21	10	12	16	21	14	20	12	16	15	4	10	9	15	206	
	<i>boydii</i> 5	5	2	2	2	1	1	1	3			2	7	2		1	3	32
	<i>boydii</i> 6							1		2	5	4	1	2				15
	<i>boydii</i> 7	1	1			1												3
	<i>boydii</i> 8	1		1			1		4	1		2	2		2	2		16
	<i>boydii</i> 9		1				1		1				1					4
	<i>boydii</i> 10	25	11	5	2	3	7	10	9	5	5		1	2	2	3		90
	<i>boydii</i> 11			2	2			2		1	2	2						11
	<i>boydii</i> 12		1		1			2	2	2	3	2	6	2	1	1		23
	<i>boydii</i> 13		1					1			2							4
	<i>boydii</i> 14	13	9	6	10	7	12	13	11	5	8	5	3	1	1	3		107
	<i>boydii</i> 15	1							1			2	4			1		9
	<i>boydii</i> 17						1											1
	<i>boydii</i> 18	4	1			1			2	2	1			1				12
	<i>boydii</i> 19								2	4	1							7
	<i>boydii</i> 20															1	1	2
	<i>boydii</i> unspecified	268	196	172	124	120	108	127	130	117	70	88	62	57	91	111		1841
	Sub Total	398	312	224	221	207	229	275	253	208	158	180	126	104	148	169	3212	
<i>S. dysenteriae</i>	<i>dysenteriae</i> 1	7	3	2	9	7	7	4	6	3	6	9	1	1	5	4	74	
	<i>dysenteriae</i> 2	23	20	21	11	8	10	16	17	37	12	5	8	5	10	4	207	
	<i>dysenteriae</i> 3	15	10	8	6	10	17	17	10	9	4	3	4	1	2	4	120	
	<i>dysenteriae</i> 4	3	3	3	1			3		1		3		5	2	1	25	
	<i>dysenteriae</i> 5							1						1			2	
	<i>dysenteriae</i> 6		1			1			1									3
	<i>dysenteriae</i> 7	1										1						2
	<i>dysenteriae</i> 8		1									1			2			4
	<i>dysenteriae</i> 9	1	3	3		2	1	5	5		1	1	3	3	1			29
	<i>dysenteriae</i> 10											1			2			3
	<i>dysenteriae</i> 11	1						2	2									5
	<i>dysenteriae</i> 12				1		1										2	4
	<i>dysenteriae</i> 13		2															2
	<i>dysenteriae</i> 14															1		1
	<i>dysenteriae</i> unspecified	130	102	89	77	66	54	55	38	37	24	35	32	23	22	22		806
	Sub Total	181	145	126	105	94	90	103	79	87	49	57	48	43	43	37	1287	
<i>S. flexneri</i>	<i>flexneri</i> 1 unspecified	391	391	294	294	310	412	303	238	200	169	145	136	110	100	98	3591	
	<i>flexneri</i> 1a	40	16	5	2	8	4	4	6	9	7	5	11	9	6	1	133	
	<i>flexneri</i> 1b	167	63	26	12	54	17	7	18	26	25	13	19	26	33	27	533	
	<i>flexneri</i> 2 unspecified	314	362	393	394	367	382	401	423	395	361	293	226	183	186	185	4865	
	<i>flexneri</i> 2a	168	98	85	88	84	71	31	85	102	134	100	147	103	95	89	1480	
	<i>flexneri</i> 2b	25	26	10	17	10	17	7	11	20	13	33	17	14	17	10	247	
	<i>flexneri</i> 3 unspecified	118	154	158	165	131	246	255	248	155	93	96	95	70	113	112	2209	
	<i>flexneri</i> 3a	36	31	22	11	13	11	26	26	28	65	55	34	51	79	53	541	
	<i>flexneri</i> 3b	35	14	5	4	1	7	18	11	12	9	12	12	16	12	13	181	
	<i>flexneri</i> 4 unspecified	106	120	126	91	116	139	124	108	116	75	72	67	74	61	69	1464	

TABLE 6

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, Serotype and Year for 1990-2004

Species	Serotype	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
	<i>flexneri</i> 4a	57	8	11	19	7	12	17	13	13	34	35	55	53	49	53	436
	<i>flexneri</i> 4b	10	1	2	2	1		1		4				5	6		32
	<i>flexneri</i> 4c														1		1
	<i>flexneri</i> 5 unspecified	16	16	14	28	43	62	39	47	56	28	23	17	9	10	3	411
	<i>flexneri</i> 5a														1	2	3
	<i>flexneri</i> 6	99	92	72	67	141	107	119	118	78	79	68	71	59	58	42	1270
	<i>flexneri</i> unspecified	2449	2320	2027	1867	1815	1528	1350	1214	985	916	853	738	755	892	814	20523
	<i>flexneri</i> variant x								3	6	2	2	2	4	6	5	30
	<i>flexneri</i> variant y						4	2	4	2	15	16	21	8	15	26	113
	<i>flexneri</i> 88-893 (Provisional)														5	1	6
	Sub Total	4031	3712	3250	3061	3101	3019	2704	2573	2207	2025	1821	1668	1549	1745	1603	38069
<i>S. sonnei</i>	<i>sonnei</i>	11116	10734	10106	14339	12446	14811	10262	8807	9387	7366	10803	8193	11201	10621	6433	156625
	Sub Total	11116	10734	10106	14339	12446	14811	10262	8807	9387	7366	10803	8193	11201	10621	6433	156625
Unknown	Unknown	1580	1602	1217	1785	2935	1181	727	602	596	489	639	564	2171	3394	1101	20583
	Sub Total	1580	1602	1217	1785	2935	1181	727	602	596	489	639	564	2171	3394	1101	20583
	Total	17306	16505	14923	19511	18783	19330	14071	12314	12485	10087	13500	10599	15068	15951	9343	219776

TABLE 7

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, Serotype and Month for 2004

Species	Serotype	Month												Total
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<i>S. boydii</i>	<i>boydii</i> 1	1			1				1	4	3			10
	<i>boydii</i> 2	2	4	1			4	1	1	1	5	1		20
	<i>boydii</i> 4	1				1	1	4	2	3	1		2	15
	<i>boydii</i> 5		2							1				3
	<i>boydii</i> 8							1					1	2
	<i>boydii</i> 10					1	1		1					3
	<i>boydii</i> 12						1							1
	<i>boydii</i> 14				1						1		1	3
	<i>boydii</i> 20								1					1
	<i>boydii</i> unspecified	11	13	2	2	10	6	17	16	8	8	14	4	111
	Sub Total	15	19	3	4	12	13	23	22	17	18	15	8	169
<i>S. dysenteriae</i>	<i>dysenteriae</i> 1					1	1		1		1			4
	<i>dysenteriae</i> 2						2	1		1				4
	<i>dysenteriae</i> 3	1		2				1						4
	<i>dysenteriae</i> 4												1	1
	<i>dysenteriae</i> 12	1										1		2
	<i>dysenteriae</i> unspecified	1	1		3	1	1		8	3	2	1	1	22
	Sub Total	3	1	2	3	2	4	2	9	4	3	2	2	37
<i>S. flexneri</i>	<i>flexneri</i> 1 unspecified	11	10	4	9	11	8	9	10	7	9	3	7	98
	<i>flexneri</i> 1a				1									1
	<i>flexneri</i> 1b	3	2		1	2	2	2	4	7	3		1	27
	<i>flexneri</i> 2 unspecified	12	9	12	8	8	21	21	30	15	31	10	8	185
	<i>flexneri</i> 2a	6	5	4	8	4	7	10	10	17	5	9	4	89
	<i>flexneri</i> 2b	2		1	2		1	1	1	1			1	10
	<i>flexneri</i> 3 unspecified	12	9	10	9	5	4	14	11	7	8	13	10	112
	<i>flexneri</i> 3a	2	10	6	5	1	7	8	5	4	2	2	1	53
	<i>flexneri</i> 3b	1	1	2	2			3			1	2	1	13
	<i>flexneri</i> 4 unspecified	2	3	7	2	3	11	9	12	8	5	4	3	69
	<i>flexneri</i> 4a	4	5	3	4	6	6	3	7	6	5	2	2	53
	<i>flexneri</i> 5 unspecified							1	1	1				3
	<i>flexneri</i> 5a		1			1								2
	<i>flexneri</i> 6	2	4	2	1	7	1	7	4	7	2	4	1	42
	<i>flexneri</i> unspecified	65	52	57	57	72	67	97	87	83	56	61	60	814
	<i>flexneri</i> variant x				1	1	1	1		1				5
	<i>flexneri</i> variant y	1	4	1	5	1	1		1	2	3	1	6	26
	<i>flexneri</i> 88-893 (Provisional)						1							1
	Sub Total	123	115	109	115	122	138	186	183	166	130	111	105	1603
<i>S. sonnei</i>	<i>sonnei</i>	453	347	406	406	677	606	636	592	643	633	601	433	6433
	Sub Total	453	347	406	406	677	606	636	592	643	633	601	433	6433
Unknown	Unknown	116	91	129	91	110	100	88	69	82	68	81	76	1101
	Sub Total	116	91	129	91	110	100	88	69	82	68	81	76	1101
	Total	710	573	649	619	923	861	935	875	912	852	810	624	9343

TABLE 8

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, Serotype and Month for 1990-2004

		Month												
Species	Serotype	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
<i>S. boydii</i>	<i>boydii</i> 1	8	4	12	11	16	11	18	22	32	23	8	15	180
	<i>boydii</i> 2	32	31	43	46	47	60	72	93	79	67	43	23	636
	<i>boydii</i> 3	1	2		2	2	4			2				13
	<i>boydii</i> 4	16	10	10	11	8	10	29	34	32	15	19	12	206
	<i>boydii</i> 5	1	2		3	4	5	2	1	4	4	6		32
	<i>boydii</i> 6	1	1				2	3	2	2	4			15
	<i>boydii</i> 7		1		1				1					3
	<i>boydii</i> 8		2	1	1	1	1	1	6	1			2	16
	<i>boydii</i> 9	1		1							2			4
	<i>boydii</i> 10	1	3	3	5	5	9	13	17	9	12	7	6	90
	<i>boydii</i> 11	1		2	1			3	1	1		1	1	11
	<i>boydii</i> 12	2	2	3		1	3	2	6	2	2			23
	<i>boydii</i> 13	1									1	1	1	4
	<i>boydii</i> 14	3	1	3	10	12	6	21	15	8	16	8	4	107
	<i>boydii</i> 15				1	4		1	2	1				9
	<i>boydii</i> 17						1							1
	<i>boydii</i> 18		1		1	3			2		2		3	12
	<i>boydii</i> 19	2		1		1			1	1	1			7
	<i>boydii</i> 20	1							1					2
		<i>boydii</i> unspecified	101	111	89	66	130	149	192	267	232	222	157	125
	Sub Total	172	171	168	159	234	261	357	471	406	371	250	192	3212
<i>S. dysenteriae</i>	<i>dysenteriae</i> 1	7	5	2	6	5	4	7	14	6	10	1	7	74
	<i>dysenteriae</i> 2	8	25	23	15	7	17	26	29	21	18	11	7	207
	<i>dysenteriae</i> 3	4	3	10	8	13	8	16	23	12	7	9	7	120
	<i>dysenteriae</i> 4	1	2	3		2	2	2	6	2	1	2	2	25
	<i>dysenteriae</i> 5									2				2
	<i>dysenteriae</i> 6							2				1		3
	<i>dysenteriae</i> 7					1			1					2
	<i>dysenteriae</i> 8							1	1	1		1		4
	<i>dysenteriae</i> 9		5	2	3	6	1	2	2	3	2	2	1	29
	<i>dysenteriae</i> 10							1		2				3
	<i>dysenteriae</i> 11					1	1	1	1		1			5
	<i>dysenteriae</i> 12	1						1	1			1		4
	<i>dysenteriae</i> 13							1		1				2
	<i>dysenteriae</i> 14										1			1
	<i>dysenteriae</i> unspecified	61	42	68	50	49	50	63	105	108	81	70	59	806
	Sub Total	82	82	108	82	84	83	123	183	158	121	98	83	1287
<i>S. flexneri</i>	<i>flexneri</i> 1 unspecified	259	214	253	257	285	305	370	407	368	406	240	227	3591
	<i>flexneri</i> 1a	13	6	17	10	12	6	10	16	17	10	10	6	133
	<i>flexneri</i> 1b	53	35	43	36	37	78	41	74	51	33	32	20	533
	<i>flexneri</i> 2 unspecified	411	323	333	361	428	382	494	630	411	423	339	330	4865
	<i>flexneri</i> 2a	127	108	100	126	100	137	156	172	132	129	96	97	1480
	<i>flexneri</i> 2b	21	14	28	20	11	16	34	34	19	24	14	12	247
	<i>flexneri</i> 3 unspecified	190	159	151	185	165	134	267	211	225	192	172	158	2209
	<i>flexneri</i> 3a	37	45	39	34	37	41	67	71	50	49	38	33	541
<i>flexneri</i> 3b	14	13	26	18	12	16	16	12	10	15	16	13	181	

TABLE 8

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, Serotype and Month for 1990-2004

		Month												
Species	Serotype	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	<i>flexneri</i> 4 unspecified	116	85	120	109	106	130	155	165	152	124	106	96	1464
	<i>flexneri</i> 4a	36	36	30	43	34	44	42	33	37	47	31	23	436
	<i>flexneri</i> 4b	3			2	5	5	4	3	3	1	4	2	32
	<i>flexneri</i> 4c											1		1
	<i>flexneri</i> 5 unspecified	34	21	28	21	28	45	50	43	48	33	36	24	411
	<i>flexneri</i> 5a		1			1	1							3
	<i>flexneri</i> 6	70	66	69	89	78	86	180	181	160	118	94	79	1270
	<i>flexneri</i> unspecified	1466	1461	1567	1471	1549	1466	1821	2049	2220	1958	1815	1680	20523
	<i>flexneri</i> variant x		2	1	2	3	2	4	5	4	1	4	2	30
	<i>flexneri</i> variant y	12	7	13	11	6	11	4	9	10	7	13	10	113
	<i>flexneri</i> 88-893 (Provisional)	1	1			1	1	2						6
	Sub Total	2863	2597	2818	2795	2898	2906	3717	4115	3917	3570	3061	2812	38069
<i>S. sonnei</i>	<i>sonnei</i>	9352	7903	8974	8649	11615	13279	15348	18807	17275	17618	15096	12709	156625
	Sub Total	9352	7903	8974	8649	11615	13279	15348	18807	17275	17618	15096	12709	156625
Unknown	Unknown	1091	1136	1279	1414	1859	1721	1881	2116	2288	2116	1930	1752	20583
	Sub Total	1091	1136	1279	1414	1859	1721	1881	2116	2288	2116	1930	1752	20583
	Total	13560	11889	13347	13099	16690	18250	21426	25692	24044	23796	20435	17548	219776

TABLE 9

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, Geographic Region and Year for 1990-2004

Species	Region	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
All <i>Shigella</i>	New England	646	1757	555	520	414	586	373	486	366	851	385	288	325	338	273	8163
	Mid Atlantic	1595	1263	1071	1215	1562	1758	2240	1874	1739	750	1726	967	1214	1678	896	21548
	East North Central	2096	1643	2154	2816	1970	2105	1190	1457	1580	1853	2096	1897	1461	1462	813	26593
	West North Central	630	403	589	828	1368	1391	699	494	623	806	2064	1332	633	467	410	12737
	South Atlantic	1894	1565	1727	2860	4790	2181	1912	1136	1275	534	1171	1331	3624	2145	1160	29305
	East South Central	1056	1108	866	1817	1732	1242	576	576	1230	699	587	647	652	720	834	14342
	West South Central	1575	1216	892	1894	1062	1504	983	1388	1469	1212	1169	795	3092	5503	2885	26639
	Mountain	1655	2248	1174	1348	1436	2713	1665	1238	764	776	874	776	935	1042	635	19279
	Pacific	6159	5302	5895	6213	4449	5850	4433	3665	3439	2606	3428	2566	3132	2596	1437	61170
	Total		17306	16505	14923	19511	18783	19330	14071	12314	12485	10087	13500	10599	15068	15951	9343
<i>S. boydii</i>	New England	17	12	4		5	11	6	14	6	8	7	5	6	10	10	121
	Mid Atlantic	10	10	6	11	15	12	5	13	10	12	16	15	11	11	9	166
	East North Central	29	20	16	30	19	31	19	23	25	23	12	12	11	15	12	297
	West North Central	5	7	3		7	6	3	4	4	6	7	7	6	2	11	78
	South Atlantic	8	8	5	10	27	7	10	7	9	9	14	12	7	4	21	158
	East South Central	2		1	4	1		2	1	2		1	2		1	1	18
	West South Central	34	44	11	29	23	27	19	26	15	18	12	5	5	24	23	315
	Mountain	47	30	14	14	18	32	91	41	22	23	38	28	18	22	17	455
	Pacific	246	181	164	123	92	103	120	124	115	59	73	40	40	59	65	1604
	Total		398	312	224	221	207	229	275	253	208	158	180	126	104	148	169
<i>S. dysenteriae</i>	New England	8	6	6			3	6	6	10	3	2	3	4	4	2	63
	Mid Atlantic	9	6	8	2	6	6	6	8	7	2	11	7	6	8	3	95
	East North Central	15	11	21	4	6	11	8	2	9	9	4		7	7	4	118
	West North Central	3	1	6	1	2	1	2	2	1	2		3	2	1	1	28
	South Atlantic	5	6	4	4	5	2	8	5	6	2	4	8		1	1	61
	East South Central	2		1	4	3			3	1					1	4	19
	West South Central	14	10	2	6	8	5	7	5	9	1	3	1		2	7	80
	Mountain	7	12	5	12	9	6	18	12	16	7	5	3	5	5	3	125
	Pacific	118	93	73	72	55	56	48	36	28	23	28	23	19	14	12	698
	Total		181	145	126	105	94	90	103	79	87	49	57	48	43	43	37
<i>S. flexneri</i>	New England	122	94	107	92	106	115	94	123	102	99	74	88	79	95	84	1474
	Mid Atlantic	254	227	177	211	213	206	179	188	247	176	154	194	106	104	154	2790
	East North Central	465	339	330	287	238	289	267	185	191	223	179	145	153	192	194	3677
	West North Central	125	115	77	67	121	71	105	82	79	95	70	70	77	59	50	1263
	South Atlantic	156	124	137	173	343	196	122	120	136	127	135	164	160	158	177	2428
	East South Central	18	20	16	18	31	28	21	40	18	16	21	26	32	34	41	380
	West South Central	359	268	156	122	128	167	99	164	137	174	121	71	76	128	157	2327
	Mountain	381	491	371	382	353	464	441	484	352	338	313	256	234	287	269	5416
	Pacific	2151	2034	1879	1709	1568	1483	1376	1187	945	777	754	654	632	688	477	18314
	Total		4031	3712	3250	3061	3101	3019	2704	2573	2207	2025	1821	1668	1549	1745	1603
<i>S. sonnei</i>	New England	448	1573	435	428	302	456	264	341	248	739	299	185	230	227	176	6351
	Mid Atlantic	1321	1020	880	985	1325	1527	2048	1664	1470	547	1536	744	1090	1555	709	18421
	East North Central	1443	1176	1671	2440	1707	1773	896	1242	1354	1592	1896	1726	1288	1245	601	22050
	West North Central	446	255	478	698	1166	1281	575	405	538	696	1971	1216	534	403	306	10968
	South Atlantic	1535	1210	1451	2280	2695	1966	1772	999	1121	396	1003	1141	3454	1976	951	23950
	East South Central	761	768	699	1369	1341	929	460	532	1209	681	534	608	606	600	721	11818
	West South Central	1167	891	721	1737	903	1303	857	1193	1292	986	948	705	1314	2416	1979	18412

TABLE 9

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, Geographic Region and Year for 1990-2004

Species	Region	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
	Mountain	1124	1601	722	824	920	2180	1115	695	374	408	511	408	647	711	319	12559
	Pacific	2871	2240	3049	3578	2087	3396	2275	1736	1781	1321	2105	1460	2038	1488	671	32096
	Total	11116	10734	10106	14339	12446	14811	10262	8807	9387	7366	10803	8193	11201	10621	6433	156625
Unknown	New England	51	72	3		1	1	3	2		2	3	7	6	2	1	154
	Mid Atlantic	1			6	3	7	2	1	5	13	9	7	1		21	76
	East North Central	144	97	116	55		1		5	1	6	5	14	2	3	2	451
	West North Central	51	25	25	62	72	32	14	1	1	7	16	36	14	2	42	400
	South Atlantic	190	217	130	393	1720	10		5	3		15	6	3	6	10	2708
	East South Central	273	320	149	422	356	285	93			2	31	11	14	84	67	2107
	West South Central	1	3	2			2	1		16	33	85	13	1697	2933	719	5505
	Mountain	96	114	62	116	136	31		6			7	81	31	17	27	724
	Pacific	773	754	730	731	647	812	614	582	570	426	468	389	403	347	212	8458
	Total	1580	1602	1217	1785	2935	1181	727	602	596	489	639	564	2171	3394	1101	20583

TABLE 10

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, State and Year for 1990-2004

Species	State	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
All <i>Shigella</i>	Alabama	514	450	160	341	479	383	110	193	220	63	79	152	352	183	153	3832
	Alaska	7	30	19	21	14	10	59	3	7	5	3	7	1	6	1	193
	Arizona	498	577	399	369	401	815	695	694	348	413	350	302	439	364	247	6911
	Arkansas	20	91	18	100	61	96	100	60	67	27	63	154		79	61	997
	California	5703	4473	5217	5175	3757	5347	3879	3222	3033	2358	2865	2149	2742	2253	1180	53353
	Colorado	385	216	364	614	529	485	484	199	164	164	221	254	209	327	151	4766
	Connecticut	192	108	131	212	146	148	121	81	66	70	70	60	107	71	68	1651
	Delaware	109	4	7	60	11	125	66	21	38	11	23	16	446	158	11	1106
	District of Columbia	59	45	63	26	19	199	200	8							4	623
	Florida	199	378	263	248	721	319	275	245	539	154	107	44	154	9	16	3671
	Georgia	620	532	560	494	2062	176	173	244	252	83	194	465	895	636	477	7863
	Hawaii	60	80	119	89	193	102	86	55	51	36	33	61	61	42	46	1114
	Idaho	2		13	16	30	74	54	39	15	12	25	15	15	31	13	354
	Illinois	932	759	910	1142	1030	1215	525	842	1308	1018	941	374	771	876	313	12956
	Indiana	350	334	209	173	181	103	71	30	43	118	157	66	38	43	50	1966
	Iowa	47	30	42	45	323	240	115	72	46	62	350	291	67	57	68	1855
	Kansas	62	56	83	110	57	106	32	80	62	57	147	42	62	101	57	1114
	Kentucky	11	204	28	45	83	86	45	40	45	149	121	336	79	70	75	1417
	Louisiana	214	120	87	303	314	378	344	114	288	137	200	238	546	399	284	3966
	Maine	5	4	9	2	4		6				11	3	1	7	6	58
	Maryland	147	50	276	262	201	226	447	176	69	58	115	104	918	463	112	3624
	Massachusetts	341	1387	240	256	209	288	169	299	260	731	262	190	184	221	171	5208
	Michigan	342	193	494	645	329	454	341	249	5	489	610	232	174	217	184	4958
	Minnesota	122	80	90	236	467	166	164	141	334	254	926	500	226	106	57	3869
	Mississippi	274	261	117	382	461	333	179		7	11	7	32	32	19	16	2131
	Missouri	170	139	273	336	292	609	272	161	136	353	466	215	226	186	158	3992
	Montana	46	136	120	12	2	203	28	5	3	3	6	1	1	2	4	572
	Nebraska	5	1	6	1	2	4	4	17	19	68	117				47	291
	Nevada	8	2	6	3	2	19	13	13	20	6	66	50	47	44	57	356
	New Hampshire	63	40	6	10	10	79	26	21	22	17	8	4	14	13	7	340
	New Jersey	202	226	220	274	388	675	342	480	652	236	440	227	364	208	199	5133
	New Mexico	462	303	164	272	235	408	177	192	177	109	119	87	185	209	109	3208
	New York	770	361	451	453	697	548	305	790	828	331	840	511	487	616	588	8576
	North Carolina	555	228	307	1089	1130	593	186	173	183	93	271	186	527	334	133	5988
	North Dakota	143	25	13	13	59	126	58	3	3	2	52	41	7	6	10	561
	Ohio	212	97	77	585	276	260	221	307	153	150	332	1197	429	241	117	4654
	Oklahoma	187	130	97	214	85	132	157	134	213	171	45	75	376	626	379	3021
	Oregon	101	350	144	108	87	113	125	173	156	91	113	113	102	104	78	1958
	Pennsylvania	623	676	400	488	477	535	1593	604	259	183	446	229	363	854	109	7839
	Rhode Island	30	214	163	32	43	65	43	83	13	29	34	25	18	22	16	830
	South Carolina	110	38	68	113	180	115	78	30	99	64	94	124	81	290	286	1770
	South Dakota	81	72	82	87	168	140	54	20	23	10	6	243	45	11	13	1055
	Tennessee	257	193	561	1049	709	440	242	343	958	476	380	127	189	448	590	6962
	Texas	1154	875	690	1277	602	898	382	1080	901	877	861	328	2170	4399	2161	18655
	Utah	254	1014	108	54	235	705	212	95	36	68	84	62	37	60	54	3078
	Vermont	15	4	6	8	2	6	8	2	5	4		6	1	4	5	76
	Virginia	74	257	165	530	466	401	456	226	87	66	350	382	594	251	113	4418

TABLE 10

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, State and Year for 1990-2004

Species	State	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
	Washington	288	369	396	820	398	278	284	212	192	116	414	236	226	191	132	4552
	West Virginia	21	33	18	38		27	31	13	8	5	17	10	9	4	8	242
	Wisconsin	260	260	464	271	154	73	32	29	71	78	56	28	49	85	149	2059
	Wyoming				8	2	4	2	1	1	1	3	5	2	5		34
	Total	17306	16505	14923	19511	18783	19330	14071	12314	12485	10087	13500	10599	15068	15951	9343	219776
<i>S. boydii</i>	Alaska	2			1												3
	Arizona	35	17	6	5	5	22	73	26	9	13	20	11	14	10	6	272
	Arkansas															1	1
	California	232	171	151	105	81	91	102	105	103	54	65	31	38	55	61	1445
	Colorado	5	4	3	3	3	5	6	10	5	3	8	1	1	3	8	68
	Connecticut	1	2	2		3	3	1	1	3		1				1	18
	Delaware				1	1							1				3
	District of Columbia		1				2										3
	Florida	1	2					1	1	1							6
	Georgia	2	2	1	2	19		1	1		4	6	3	2		12	55
	Hawaii			1			1	1		2			2				7
	Idaho									1		1	4	1	3	2	12
	Illinois	15	9	9	26	10	18	15	16	22	16	7	5	3	6	7	184
	Indiana	2	3			2	1			1	1	1		1	1	1	14
	Iowa	1		1		1		1				4	4	2		3	17
	Kansas	2	2			1	1		1	1		1		2			11
	Kentucky			1				2							1	1	5
	Louisiana		1		2		1	1	1		2		2				10
	Maine	1											1				2
	Maryland	1	2	2	4	3		2	2	2	1	2	2	1		5	29
	Massachusetts	14	10	2			6	4	10	3	7	6	4	4	9	7	86
	Michigan	5	3	2	3	2	7	1	4		3	3	3	5	4	4	49
	Minnesota	2	1	1		3	4	2	3	3	5	1	2	2	2	3	34
	Mississippi	1															1
	Missouri		3	1		2	1						1				8
	Montana	1							1					1			3
	Nebraska										1	1				1	3
	Nevada	1	1				1	4	1	2		1	1				12
	New Hampshire													1		1	2
	New Jersey	3	1		3	5	3	3	4	2	3	7	4		5	3	46
	New Mexico	4	7	4	6	6	3	3	1	4	2	5	6	1	6	1	59
	New York	6	4	6	6	7	7	2	8	8	9	8	7	10	4	5	97
	North Carolina		1			2	1	1	1	5	1	3		1	3		19
	Ohio	3	3		1	4	4	1		2	2		3	1	1		25
	Oklahoma	1			1	3	1			1	2	2		1	1		13
	Oregon	2	1	6	7	3	2	3	4	5	3	3	4	2	4	1	50
	Pennsylvania	1	5		2	3	2		1			1	4	1	2	1	23
	Rhode Island	1				2	1	1	3		1			1	1		11
	South Carolina			1	1						1	1	1			1	6
	South Dakota		1													4	5
	Tennessee	1			4	1			1	2		1	2				12
	Texas	33	43	11	26	20	25	18	25	14	14	10	3	4	23	22	291

TABLE 10

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, State and Year for 1990-2004

Species	State	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
	Utah	1	1	1		3	1	5	2	1	5	3	5				28
	Vermont						1									1	2
	Virginia	3		1	2	2	4	5	2	1	2	2	5	2	1	2	34
	Washington	10	9	6	10	8	9	14	15	5	2	5	3			3	99
	West Virginia	1												1		1	3
	Wisconsin	4	2	5		1	1	2	3		1	1	1	1	3		25
	Wyoming					1											1
	Total	398	312	224	221	207	229	275	253	208	158	180	126	104	148	169	3212
<i>S. dysenteriae</i>	Alabama	2		1	1				2								6
	Alaska				1												1
	Arizona	4	6	2	3	3	4	16	8	11	5	4	1	1	3	1	72
	Arkansas					1		1									2
	California	110	86	69	65	51	50	40	27	25	20	23	21	18	12	9	626
	Colorado	1	3	2	7	2	2	1	2	3	2			1	2	2	30
	Connecticut	2		2				1		5				1	2		13
	District of Columbia	1						2									3
	Florida	1	1	2	1			3		1		1	2				12
	Georgia		1		2	3		1	1	1	1		3				13
	Hawaii	2						1	1								4
	Idaho												1				1
	Illinois	8	4	18	2	3	10	4		7	5	1		3	2	2	69
	Indiana	1	2	2	1	1				2				3	1		13
	Kansas			3				1									4
	Kentucky					1				1						2	4
	Louisiana											1				1	2
	Maine	1															1
	Maryland		2	2					1			2	1		1		9
	Massachusetts	5	6	2			2	5	3	5	2	2	2	3	2	2	41
	Michigan	3	3		1	1	1	1	2		3	2			3		20
	Minnesota	2			1	2	1	1	2	1	2		3	1	1	1	18
	Missouri		1											1			2
	Montana			1													1
	Nebraska			1													1
	Nevada				1												1
	New Hampshire								1								1
	New Jersey		2	1	2	1		5	2	5	1	3	3		2	1	28
	New Mexico	1	2		1	2		1	2	2				2			13
	New York	6	4	5		4	4	1	3	2	1	7		3	4		44
	North Carolina	2	1					1	2	1	1					1	9
	North Dakota			2													2
	Ohio					1		1			1	1		1	1		6
	Oklahoma		2	1				1	1								5
	Oregon	1		1	1	2	1	2	4	2	1	1	1			1	18
	Pennsylvania	3		2		1	2		3			1	4	3	2	2	23
	Rhode Island			2					2		1		1				6
	South Dakota	1															1
	Tennessee				3	2			1						1	2	9

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Species	State	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
	Texas	14	8	1	6	7	5	5	4	9	1	2	1		2	6	71
	Utah	1	1			1						1	1	1			6
	Vermont						1										1
	Virginia	1	1		1	2	2	1	1	3		1	2				15
	Washington	5	7	3	5	2	5	5	4	1	2	4	1	1	2	2	49
	Wisconsin	3	2	1				2								2	10
	Wyoming					1											1
	Total	181	145	126	105	94	90	103	79	87	49	57	48	43	43	37	1287
<i>S. flexneri</i>	Alabama	6	3		2	11	5	7	7	5	5	8	8	7	10	7	91
	Alaska	2	4	2	6	4		6	1		4		3		4	1	37
	Arizona	150	259	225	212	197	263	279	287	202	192	158	140	112	134	136	2946
	Arkansas	1	1	2	1	2		2		4	2	4	2		7	28	56
	California	1957	1831	1689	1478	1323	1269	1130	1000	767	631	610	477	511	548	365	15586
	Colorado	65	71	52	44	61	87	83	58	57	64	55	40	57	65	50	909
	Connecticut	17	13	26	13	25	18	15	23	15	20	15	21	17	18	24	280
	Delaware	1	1	1	1	2	3		5	1	5	11	4	3	7	6	51
	District of Columbia	19	24	18	13	15	28	10	4							3	134
	Florida	9	4	8	9	5	12	10	11	8	10	7	9	8		6	116
	Georgia	31	27	32	44	198	41	30	26	43	47	53	51	57	61	75	816
	Hawaii	36	57	72	63	68	57	67	31	25	25	17	39	32	33	34	656
	Idaho	1		3	7	13	2	4	9	9	6	8	3	3	8	7	83
	Illinois	340	222	208	204	157	192	167	124	163	159	110	65	81	103	111	2406
	Indiana	21	24	8	12	17	17	14	8	11	13	15	11	11	12	12	206
	Iowa	8	8	7	5	11	9	13	15	6	9	10	6	11	4	9	131
	Kansas	12	13	7	6	9	5	9	4	12	11	7	7	5	9	8	124
	Kentucky	2	4		2	6	2		13	2		2	2	2	11	11	59
	Louisiana	19	16	8	13	10	12	14	11	15	5	5	3	27	26	21	205
	Maine		1	4		1		6				1			3	2	18
	Maryland	31	11	31	45	61	32	32	18	29	21	19	34	26	43	33	466
	Massachusetts	95	71	60	69	66	73	50	90	81	60	43	53	49	61	47	968
	Michigan	50	45	82	51	39	59	54	34		37	30	42	43	41	27	634
	Minnesota	26	20	20	16	75	28	53	40	39	37	22	30	34	28	19	487
	Mississippi	2	1	2		1				2		1	4	6	3	3	25
	Missouri	26	18	8	7	10	8	11	11	11	14	18	17	23	11	10	203
	Montana	7	9	1	1	1	6	1		2		1			1	2	32
	Nebraska	5						1		1	15	10				4	36
	Nevada	4	1	2			5		6	8	6	14	17	9	9	16	97
	New Hampshire	2	2	3	3	2	3	3	2	2	7	3	1	5	5	2	45
	New Jersey	44	43	42	42	49	69	49	46	85	59	44	38	16	22	56	704
	New Mexico	124	110	75	89	52	78	65	74	53	48	38	29	35	52	39	961
	New York	155	122	93	125	128	107	81	101	126	93	86	139	58	57	59	1530
	North Carolina	39	26	23	30	22	32	20	34	23	24	22	35	32	25	11	398
	North Dakota	5	1	3	5			1	1	1	1	1	4		5		28
	Ohio	21	10	9	6	5	9	16	7	13	10	21	20	13	24	33	217
	Oklahoma	10	11	9	4	5	14	8	4	3	6	4	6	8	10	7	109
	Oregon	39	31	19	47	32	37	61	54	60	51	38	56	25	42	24	616
	Pennsylvania	55	62	42	44	36	30	49	41	36	24	24	17	32	25	39	556

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Species	State	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
	Rhode Island	3	7	13	5	12	19	18	8	4	10	12	9	7	5	8	140
	South Carolina	10	7	9	1	7	5	3	7	5	1	3	7	7	5	6	83
	South Dakota	43	55	32	28	16	21	17	11	9	8	2	6	4	2		254
	Tennessee	8	12	14	14	13	21	14	20	9	11	10	12	17	10	20	205
	Texas	329	240	137	104	111	141	75	149	115	161	108	60	41	85	101	1957
	Utah	30	41	13	24	29	23	8	50	21	21	38	27	16	18	19	378
	Vermont	5		1	2		2	2			2		4	1	3	1	23
	Virginia	15	24	15	28	33	43	15	15	27	19	19	22	26	16	37	354
	Washington	117	111	97	115	141	120	112	101	93	66	89	79	64	61	53	1419
	West Virginia	1			2			2				1	2	1	1		10
	Wisconsin	33	38	23	14	20	12	16	12	4	4	3	7	5	12	11	214
	Wyoming				5			1			1	1		2			10
	Total	4031	3712	3250	3061	3101	3019	2704	2573	2207	2025	1821	1668	1549	1745	1603	38069
<i>S. sonnei</i>	Alabama	365	361	111	200	356	281	103	184	215	58	71	144	345	173	146	3113
	Alaska	2	26	17	13	10	10	53	2	7	1	3	4	1	2		151
	Arizona	309	294	166	149	196	523	327	373	126	203	168	140	308	216	104	3602
	Arkansas	19	89	16	99	58	96	97	60	63	25	59	152		72	32	937
	California	2632	1632	2580	2806	1657	3126	1993	1508	1568	1227	1700	1237	1779	1291	533	27269
	Colorado	255	112	245	444	329	365	394	129	99	95	151	144	129	243	88	3222
	Connecticut	172	93	101	199	117	127	104	57	43	48	53	38	87	50	42	1331
	Delaware	108	3	6	58	8	122	66	16	37	6	12	11	443	151	5	1052
	District of Columbia	39	20	45	12	4	166	188	4							1	479
	Florida	188	371	252	237	694	305	261	233	529	144	99	32	146	9	10	3510
	Georgia	399	293	404	68	149	131	141	213	205	31	123	407	835	571	387	4357
	Hawaii	22	23	46	26	125	44	17	23	24	11	16	20	29	9	12	447
	Idaho	1		10	9	17	72	50	30	5	6	16	6	10	20	4	256
	Illinois	567	524	674	910	860	995	339	702	1116	835	820	303	683	764	192	10284
	Indiana	224	238	168	160	161	85	57	22	29	104	141	52	23	27	37	1528
	Iowa	29	18	27	34	263	231	101	57	40	53	336	279	54	53	56	1631
	Kansas	48	41	73	104	47	100	22	75	49	46	139	35	55	92	49	975
	Kentucky	9	200	27	43	76	84	43	27	42	149	119	334	77	58	61	1349
	Louisiana	195	103	78	288	304	365	329	102	273	130	194	233	519	373	259	3745
	Maine	3	3	5	2	3						8		1	4	4	33
	Maryland	115	35	239	213	134	194	413	154	38	36	91	66	891	417	68	3104
	Massachusetts	227	1300	176	187	143	206	109	194	171	662	211	127	124	148	115	4100
	Michigan	284	142	408	590	287	387	285	209	5	445	575	185	125	169	153	4249
	Minnesota	56	42	54	166	385	133	105	95	290	204	887	455	181	73	34	3160
	Mississippi	139	26	14	98	217	146	86		5	11	6	28	26	16	13	831
	Missouri	144	117	264	329	280	599	260	150	125	339	448	197	199	175	148	3774
	Montana	14	122	118	11	1	196	27	4	1	3	5	1		1	2	506
	Nebraska		1	5	1	2	4	3	17	18	51	106				10	218
	Nevada	3		4	2	2	13	9	4	10		51	32	36	33	17	216
	New Hampshire	29	29	3	7	8	76	21	18	20	10	5	3	8	8	4	249
	New Jersey	155	180	177	222	331	599	285	428	558	171	385	181	348	179	138	4337
	New Mexico	333	184	85	176	175	327	108	111	118	59	76	52	144	151	69	2168
	New York	602	231	347	321	557	427	219	677	689	219	735	359	415	551	505	6854
	North Carolina	514	200	284	1059	1105	560	164	136	154	67	246	151	494	306	121	5561

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Species	State	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
	North Dakota	135	20	5	5	37	95	47	2	2	1	51	13	4	1		418
	Ohio	187	84	68	575	266	246	203	295	137	135	308	1166	414	215	83	4382
	Oklahoma	176	116	87	209	77	116	147	129	208	163	39	69	366	613	371	2886
	Oregon	59	317	116	53	50	73	59	111	89	36	70	48	70	58	52	1261
	Pennsylvania	564	609	356	442	437	501	1544	559	223	157	416	204	327	825	66	7230
	Rhode Island	14	144	147	27	29	45	24	70	9	17	22	15	10	16	8	597
	South Carolina	100	31	58	111	172	110	75	23	94	62	90	115	74	285	279	1679
	South Dakota	34	16	50	59	152	119	37	9	14	2	4	237	41	9	9	792
	Tennessee	248	181	547	1028	692	418	228	321	947	463	338	102	158	353	501	6525
	Texas	777	583	540	1141	464	726	284	902	748	668	656	251	429	1358	1317	10844
	Utah	209	889	94	30	200	680	199	43	14	42	42	29	20	42	35	2568
	Vermont	3	4	3	6	2	2	6	2	5	2		2		1	3	41
	Virginia	55	232	148	498	429	351	435	207	56	45	326	351	564	234	73	4004
	Washington	156	242	290	680	245	143	153	92	93	46	316	151	159	128	74	2968
	West Virginia	17	25	15	24		27	29	13	8	5	16	8	7	3	7	204
	Wisconsin	181	188	353	205	133	60	12	14	67	73	52	20	43	70	136	1607
	Wyoming				3		4	1	1	1		2	4		5		21
	Total	11116	10734	10106	14339	12446	14811	10262	8807	9387	7366	10803	8193	11201	10621	6433	156625
Unknown	Alabama	141	86	48	138	112	97										622
	Alaska	1															1
	Arizona		1				3						10	4	1		19
	Arkansas		1														1
	California	772	753	728	721	645	811	614	582	570	426	467	383	396	347	212	8427
	Colorado	59	26	62	116	134	26					7	69	21	14	3	537
	Connecticut					1					2	1	1	2	1	1	9
	District of Columbia				1		3										4
	Florida			1	1	22	2						1				27
	Georgia	188	209	123	378	1693	4		3	3		12	1	1	4	3	2622
	Idaho												1	1			2
	Illinois	2		1							3	3	1	1	1	1	13
	Indiana	102	67	31									3		2		205
	Iowa	9	4	7	6	48							2				76
	Louisiana			1												3	4
	Maine											2	2				4
	Maryland			2		3			1			1	1		2	6	16
	Massachusetts						1	1	2				4	4	1		13
	Michigan			2								1	2	1			6
	Minnesota	36	17	15	53	2		3	1	1	6	16	10	8	2		170
	Mississippi	132	234	101	284	243	187	93									1274
	Missouri						1	1						3			5
	Montana	24	5				1										30
	Nebraska										1					32	33
	Nevada								2					2	2	24	30
	New Hampshire	32	9					2									43
	New Jersey				5	2	4			2	2	1	1			1	18
	New Mexico								4					3			7
	New York	1			1	1	3	2	1	3	9	4	6	1		19	51

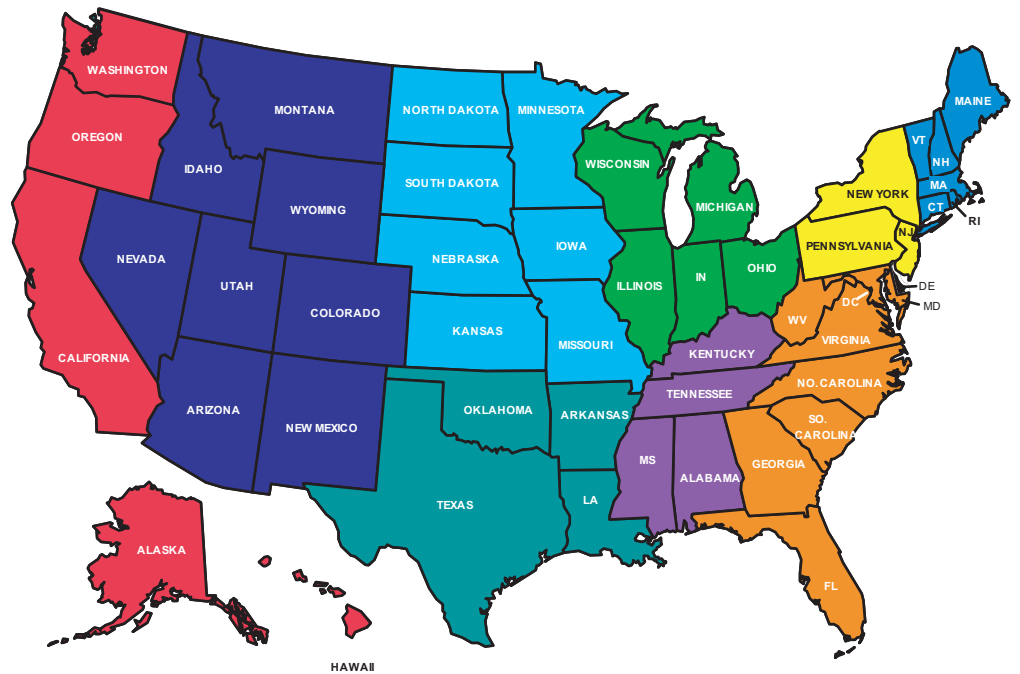
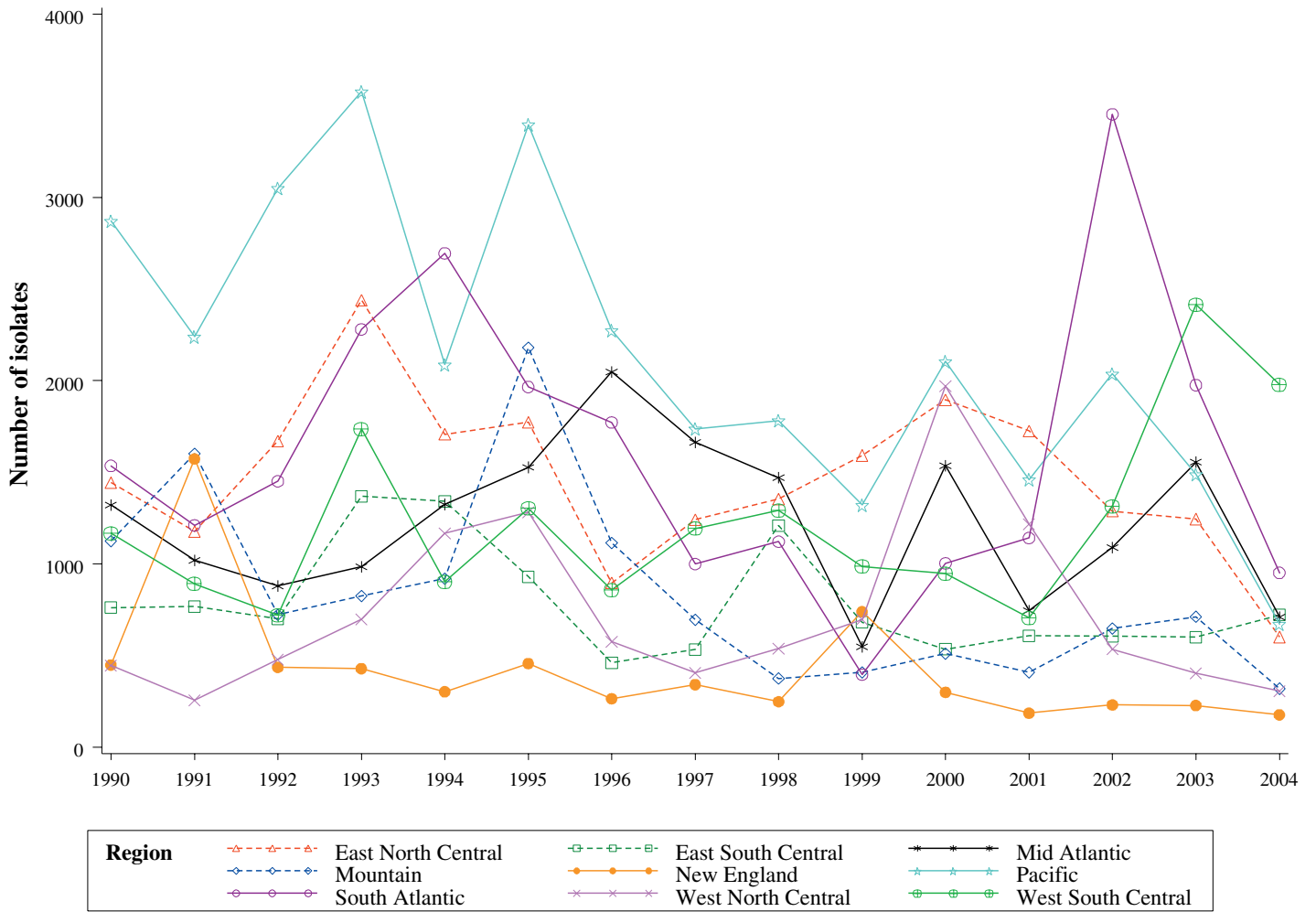
TABLE 10

Laboratory confirmed *Shigella* isolates reported to the CDC by Species, State and Year for 1990-2004

Species	State	Year															Total
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
	North Carolina					1											1
	North Dakota	3	4	3	3	22	31	10					24	3		10	113
	Ohio	1			3		1		5	1	2	2	8			1	24
	Oklahoma		1				1	1		1				1	2	1	8
	Oregon		1	2								1	4	5			13
	Pennsylvania										2	4				1	7
	Rhode Island	12	63	1													76
	South Carolina					1							1				2
	South Dakota	3															3
	Tennessee					1	1				2	31	11	14	84	67	211
	Texas	1	1	1			1			15	33	85	13	1696	2931	715	5492
	Utah	13	82			2	1										98
	Vermont	7		2													9
	Virginia			1	1		1		1			2	2	2		1	11
	Washington				10	2	1						2	2			17
	West Virginia	2	8	3	12												25
	Wisconsin	39	30	82	52												203
	Wyoming												1				1
	Total	1580	1602	1217	1785	2935	1181	727	602	596	489	639	564	2171	3394	1101	20583

FIGURE 3

Laboratory confirmed *S. sonnei* isolates reported to the CDC by Geographical Region and Year for 1990-2004



Based on Census Regions and Divisions of the United States