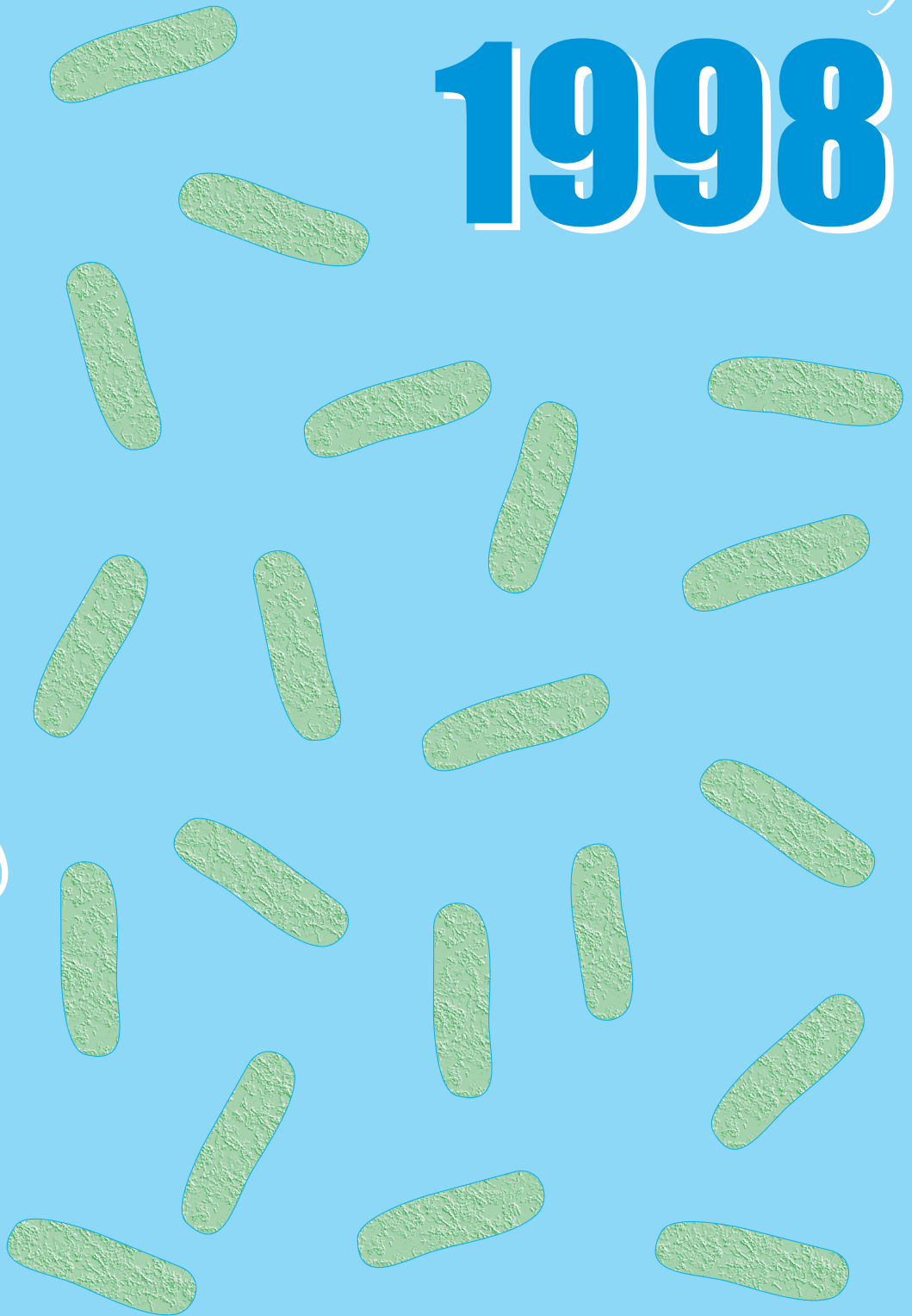


Annual Summary

1998

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, GA 30333



Laboratory-Confirmed *Shigella* Surveillance Annual Summary, 1998

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 (FDDDB) and the Biostatistics and Information Management Branch (BIMB) 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 are deleted.

There are 4 major subgroups and 43 recognized serotypes of *Shigella*, shown in Table A below.

Table A. Subgroups, Serotypes and Subtypes of *Shigella*

Subgroups	Serotypes and Subtypes
Group A: <i>Shigella dysenteriae</i>	15 serotypes (type 1 produces Shiga toxin)
Group B: <i>Shigella flexneri</i>	8 serotypes and 9 subtypes
Group C: <i>Shigella boydii</i>	19 serotypes
Group D: <i>Shigella sonnei</i>	1 serotype

These subgroups and serotypes are differentiated from one another by their biochemical traits (such as ability to ferment mannitol) and antigenic properties (Table B).

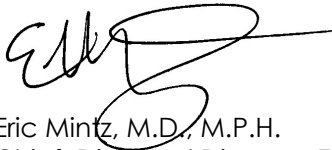
Table B. Classification of *Shigella* subgroups.

Species	Group	Serotypes	Carbohydrate fermentation		
			Glucose	Mannitol	Lactose
<i>S. dysenteriae</i>	A	15	+	-	-
<i>S. flexneri</i>	B	8	+	+	-
<i>S. boydii</i>	C	19	+	+	-
<i>S. sonnei</i>	D	1	+	+	Late

Since there are no recognized environmental or animal reservoirs for *Shigella*, except higher primates, the isolates reported herein are all from infected humans.

This report can be viewed online at www.cdc.gov/ncidod/dbmd/phlisdata/. Further information concerning data described in this report can be obtained by contacting the Foodborne and Diarrheal Diseases Branch (404) 639-2206. For further information concerning PHLIS, please contact the Biostatistics and Information Management Branch (404) 639-1364.

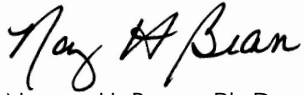
The Surveillance Outbreak Detection Algorithm (SODA), developed by BIMB and FDDB, is a statistical algorithm based on the National Surveillance Data. It is designed to detect unusual clusters of *Salmonella* and *Shigella* infection. SODA compares current *Salmonella* and *Shigella* isolates reported 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.



Eric Mintz, M.D., M.P.H.
Chief, Diarrheal Diseases Epidemiology Section
Foodborne and Diarrheal Diseases Branch



Nancy Strockbine, Ph.D.
Chief, National Reference Lab for *E. coli* and *Shigella*
Foodborne Diseases Laboratory Section
Foodborne and Diarrheal Diseases Branch



Nancy H. Bean, Ph.D.
Chief, Biostatistics and Information
Management Branch



Robert V. Tauxe, M.D., MPH
Chief, Foodborne and Diarrheal Diseases Branch

Division of Bacterial and Mycotic Diseases

National Center for Infectious Diseases

Centers for Disease Control and Prevention

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Foodborne and Diarrheal Diseases Branch
Mail Stop: A38
1600 Clifton Road
Atlanta, Georgia 30333
Telephone: 404-639-2206
<http://www.cdc.gov/ncidod/dbmd/offices.htm>

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TABLE 1
SHIGELLA SUBGROUPS REPORTED TO THE CDC
FOR 1998

RANK	SPECIES	NUMBER	PERCENT
1	SONNEI	9387	75.2
2	FLEXNERI	2207	17.7
3	BOYDII	208	1.7
4	DYSENTERIAE	87	0.7
		-----	-----
	SUBTOTAL	11889	95.2
	UNKNOWN	596	4.8
	TOTAL	12485	100.0

TABLE 2

NUMBER OF REPORTED ISOLATES OF SHIGELLA
SEROTYPES FOR 1998

RANK	SEROTYPE	NUMBER	PERCENT
1	SONNEI	9387	75.2
2	FLEXNERI UNSPECIFIED	985	7.9
3	FLEXNERI 2 UNSPECIFIED	395	3.2
4	FLEXNERI 1 UNSPECIFIED	200	1.6
5	FLEXNERI 3 UNSPECIFIED	155	1.2
6	BOYDII UNSPECIFIED	117	0.9
7	FLEXNERI 4 UNSPECIFIED	116	0.9
8	FLEXNERI 2A	102	0.8
9	FLEXNERI 6	78	0.6
10	FLEXNERI 5 UNSPECIFIED	56	0.4
11	BOYDII 2	43	0.3
12	DYSENTERIAE 2	37	0.3
13	DYSENTERIAE UNSPECIFIED	37	0.3
14	FLEXNERI 3A	28	0.2
15	FLEXNERI 1B	26	0.2
16	FLEXNERI 2B	20	0.2
17	FLEXNERI 4A	13	0.1
18	BOYDII 1	12	0.1
19	BOYDII 4	12	0.1
20	DYSENTERIAE 3	9	0.1
21	FLEXNERI 1A	9	0.1
22	FLEXNERI 3C	7	0.1
23	FLEXNERI VARIANT X	6	0.0
24	BOYDII 10	5	0.0
25	BOYDII 14	5	0.0
26	FLEXNERI 3B	5	0.0
27	BOYDII 19	4	0.0
28	FLEXNERI 4B	4	0.0
29	DYSENTERIAE 1	3	0.0
30	BOYDII 12	2	0.0
31	BOYDII 18	2	0.0
32	BOYDII 3	2	0.0
33	BOYDII 6	2	0.0
34	FLEXNERI VARIANT Y	2	0.0
35	BOYDII 11	1	0.0
36	BOYDII 8	1	0.0
37	DYSENTERIAE 4	1	0.0
	UNKNOWN	596	4.8
	TOTAL	12485	100.0

TABLE 3

AGE AND SEX OF PERSONS FROM WHOM ISOLATES
OF SHIGELLA WERE REPORTED FOR 1998

	SEX			TOTAL
	FEMALE	MALE	UNKNOWN	
AGEGROUP				
< 1 YR	92	81	9	182
1 TO 4 YRS	1125	1113	125	2363
5 TO 9 YRS	855	785	99	1739
10 TO 19 YRS	317	247	26	590
20 TO 29 YRS	542	245	28	815
30 TO 39 YRS	407	271	31	709
40 TO 49 YRS	241	188	7	436
50 TO 59 YRS	145	100	2	247
60 TO 69 YRS	62	61	4	127
70 TO 79 YRS	50	27	3	80
80+ YEARS	23	9	.	32
UNKNOWN AGE	1006	783	3376	5165
TOTAL	4865	3910	3710	12485

TABLE 3A

AGE AND SEX OF PERSONS FROM WHOM ISOLATES
OF BOYDII WERE REPORTED FOR 1998

	SEX			TOTAL
	FEMALE	MALE	UNKNOWN	
AGEGROUP				
1 TO 4 YRS	13	7	1	21
5 TO 9 YRS	5	3	.	8
10 TO 19 YRS	1	2	.	3
20 TO 29 YRS	9	5	1	15
30 TO 39 YRS	3	6	.	9
40 TO 49 YRS	3	3	.	6
50 TO 59 YRS	2	3	.	5
60 TO 69 YRS	2	1	.	3
UNKNOWN AGE	19	12	107	138
TOTAL	57	42	109	208

TABLE 3B

AGE AND SEX OF PERSONS FROM WHOM ISOLATES
OF DYSENTERIAE WERE REPORTED FOR 1998

	SEX			TOTAL
	FEMALE	MALE	UNKNOWN	
AGEGROUP				
1 TO 4 YRS	.	7	.	7
5 TO 9 YRS	2	1	.	3
10 TO 19 YRS	1	1	.	2
20 TO 29 YRS	4	3	1	8
30 TO 39 YRS	3	6	.	9
40 TO 49 YRS	5	4	.	9
50 TO 59 YRS	3	2	.	5
60 TO 69 YRS	2	3	.	5
70 TO 79 YRS	1	1	.	2
UNKNOWN AGE	5	2	30	37
TOTAL	26	30	31	87

TABLE 3C

AGE AND SEX OF PERSONS FROM WHOM ISOLATES
OF FLEXNERI WERE REPORTED FOR 1998

	SEX			TOTAL
	FEMALE	MALE	UNKNOWN	
AGEGROUP				
< 1 YR	15	20	.	35
1 TO 4 YRS	179	141	16	336
5 TO 9 YRS	76	59	9	144
10 TO 19 YRS	36	46	3	85
20 TO 29 YRS	87	78	5	170
30 TO 39 YRS	51	93	7	151
40 TO 49 YRS	37	62	.	99
50 TO 59 YRS	26	31	.	57
60 TO 69 YRS	17	17	2	36
70 TO 79 YRS	8	9	.	17
80+ YEARS	3	2	.	5
UNKNOWN AGE	103	144	825	1072
TOTAL	638	702	867	2207

TABLE 3D

AGE AND SEX OF PERSONS FROM WHOM ISOLATES
OF SONNEI WERE REPORTED FOR 1998

	SEX			TOTAL
	FEMALE	MALE	UNKNOWN	
AGEGROUP				
< 1 YR	77	61	9	147
1 TO 4 YRS	929	956	108	1993
5 TO 9 YRS	767	717	90	1574
10 TO 19 YRS	278	198	21	497
20 TO 29 YRS	442	159	21	622
30 TO 39 YRS	348	165	24	537
40 TO 49 YRS	195	119	7	321
50 TO 59 YRS	114	64	2	180
60 TO 69 YRS	41	39	2	82
70 TO 79 YRS	41	17	3	61
80+ YEARS	20	7	.	27
UNKNOWN AGE	879	624	1843	3346
TOTAL	4131	3126	2130	9387

TABLE 3E

AGE AND SEX OF PERSONS FROM WHOM ISOLATES
OF UNKNOWN WERE REPORTED FOR 1998

	SEX			TOTAL
	FEMALE	MALE	UNKNOWN	
AGEGROUP				
1 TO 4 YRS	4	2	.	6
5 TO 9 YRS	5	5	.	10
10 TO 19 YRS	1	.	2	3
30 TO 39 YRS	2	1	.	3
40 TO 49 YRS	1	.	.	1
60 TO 69 YRS	.	1	.	1
UNKNOWN AGE	.	1	571	572
TOTAL	13	10	573	596

TABLE 4

MEDIAN AGE OF PERSONS FROM WHOM ISOLATES OF SHIGELLA WERE REPORTED
BY SUBGROUP FOR 1984-1998

SUBGROUP	YEAR														
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
BOYDII	23	15	8	22	22	24	10	21	18	20	20	15	10	19	22
DYSENTERIAE	20	25	29	29	29	29	20	20	26	29	26	30	26	19	36
FLEXNERI	21	24	22	22	23	23	19	19	19	18	19	18	22	16	18
SONNEI	8	8	8	7	8	8	8	9	8	7	8	8	8	8	8
UNKNOWN	10	9	9	9	7	9	8	9	11	8	7	7	8	26	7

** MEDIAN CALCULATION EXCLUDES CALIFORNIA ISOLATES
AGE INFORMATION UNAVAILABLE FOR CALIFORNIA

TABLE 5

NUMBER OF REPORTED SHIGELLA ISOLATES BY RESIDENCE
FOR 1984-1998

RESIDENCE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
PRIVATE HOME	1401	1952	1530	1490	1574	1533	1501	3344	854	1489	920	815	342	608	421	19774
INSTITUTION	16	32	103	13	9	8	1	.	3	35	6	14	5	11	6	262
INDIAN RESERVATION	67	44	85	108	448	525	345	89	42	56	111	376	253	180	104	2833
OTHER	916	792	872	396	174	70	49	97	37	38	35	28	95	174	342	4115
UNKNOWN	10315	9056	9682	14757	20131	13836	15410	12975	13987	17893	17711	18097	13376	11341	11612	210179
TOTAL	12715	11876	12272	16764	22336	15972	17306	16505	14923	19511	18783	19330	14071	12314	12485	237163

TABLE 5A

NUMBER OF REPORTED S. BOYDII ISOLATES BY RESIDENCE
FOR 1984-1998

RESIDENCE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
PRIVATE HOME	19	19	24	25	28	27	30	29	10	10	12	12	5	12	5	267
INSTITUTION	1	.	.	.	1	.	.	.	.	.	1	1	.	1	.	5
INDIAN RESERVATION	.	.	2	2	.	.	.	.	.	.	.	5	33	6	.	48
OTHER	14	13	19	1	1	.	.	2	.	.	1	.	.	1	7	59
UNKNOWN	352	326	328	328	442	439	368	281	214	211	193	211	237	233	196	4359
TOTAL	386	358	373	356	472	466	398	312	224	221	207	229	275	253	208	4738

TABLE 5B
 NUMBER OF REPORTED S. DYSENTERIAE ISOLATES BY RESIDENCE
 FOR 1984-1998

RESIDENCE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
PRIVATE HOME	12	10	7	12	23	14	17	16	7	3	2	2	7	3	9	144
INSTITUTION	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	2
INDIAN RESERVATION	.	.	.	.	.	.	.	1	.	.	.	.	4	.	.	5
OTHER	12	10	7	3	1	.	.	.	.	.	.	.	2	3	1	39
UNKNOWN	154	189	104	216	187	202	164	128	119	102	92	88	90	73	77	1985
TOTAL	179	209	118	232	211	216	181	145	126	105	94	90	103	79	87	2175

TABLE 5C
 NUMBER OF REPORTED S. FLEXNERI ISOLATES BY RESIDENCE
 FOR 1984-1998

RESIDENCE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
PRIVATE HOME	361	312	333	324	325	326	311	270	195	209	236	148	61	116	85	3612
INSTITUTION	4	1	8	3	1	.	.	.	.	1	.	2	1	.	1	22
INDIAN RESERVATION	42	39	80	85	108	97	93	43	30	44	61	104	115	132	84	1157
OTHER	223	191	171	78	28	8	7	16	1	1	16	9	12	35	32	828
UNKNOWN	3122	2990	2975	3270	3876	3251	3620	3383	3024	2806	2788	2756	2515	2290	2005	44671
TOTAL	3752	3533	3567	3760	4338	3682	4031	3712	3250	3061	3101	3019	2704	2573	2207	50290

TABLE 5D

NUMBER OF REPORTED S. SONNEI ISOLATES BY RESIDENCE
FOR 1984-1998

RESIDENCE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
PRIVATE HOME	961	1575	1117	1070	1167	1146	1126	2955	639	1246	667	648	268	471	321	15377
INSTITUTION	10	31	84	9	7	8	1	.	3	34	4	11	4	10	5	221
INDIAN RESERVATION	24	5	2	20	248	407	248	45	12	12	50	267	101	42	20	1503
OTHER	667	560	670	307	144	62	42	78	36	37	18	18	81	134	301	3155
UNKNOWN	6128	4904	5432	9876	13462	8619	9699	7656	9416	13010	11707	13867	9808	8150	8740	140474
TOTAL	7790	7075	7305	11282	15028	10242	11116	10734	10106	14339	12446	14811	10262	8807	9387	160730

TABLE 5E

NUMBER OF REPORTED SHIGELLA ISOLATES WITH UNKNOWN SEROGROUP
BY RESIDENCE FOR 1984-1998

RESIDENCE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
PRIVATE HOME	48	36	49	59	31	20	17	74	3	21	3	5	1	6	1	374
INSTITUTION	.	.	11	.	.	.	.	.	.	.	1	.	.	.	.	12
INDIAN RESERVATION	1	.	1	1	92	21	4	.	.	.	.	.	.	.	.	120
OTHER	.	18	5	7	.	.	.	1	.	.	.	1	.	1	1	34
UNKNOWN	559	647	843	1067	2164	1325	1559	1527	1214	1764	2931	1175	726	595	594	18690
TOTAL	608	701	909	1134	2287	1366	1580	1602	1217	1785	2935	1181	727	602	596	19230

TABLE 6
NUMBER OF REPORTED SHIGELLA ISOLATES BY MONTH FOR 1998

SEROTYPE	MONTH												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
BOYDII	3	3	3	3	19	7	9	18	14	26	5	7	117
BOYDII 1	1	.	.	.	2	.	.	.	7	.	1	1	12
BOYDII 2	1	4	4	1	2	1	7	6	5	6	3	3	43
BOYDII 3	.	1	.	.	.	1	.	.	.	.	.	.	2
BOYDII 4	1	.	1	.	1	1	.	3	2	2	.	1	12
BOYDII 6	1	.	.	.	.	.	.	.	.	1	.	.	2
BOYDII 8	.	.	.	.	.	1	.	.	.	.	.	.	1
BOYDII 10	.	.	.	.	.	.	.	4	1	.	.	.	5
BOYDII 11	.	.	.	.	.	.	.	1	.	.	.	.	1
BOYDII 12	.	.	.	.	.	1	1	.	.	.	.	.	2
BOYDII 14	.	.	.	.	.	.	2	3	.	.	.	.	5
BOYDII 18	.	.	.	.	1	.	.	.	.	.	.	1	2
BOYDII 19	1	.	.	.	1	.	.	.	1	1	.	.	4
DYSENTERIAE	3	4	6	5	2	1	4	4	2	5	.	1	37
DYSENTERIAE 1	.	.	.	.	.	.	.	1	1	.	1	.	3
DYSENTERIAE 2	1	11	11	5	1	.	3	4	1	.	.	.	37
DYSENTERIAE 3	.	.	.	1	.	2	.	1	2	1	1	1	9
DYSENTERIAE 4	.	.	1	.	.	.	.	.	.	.	.	.	1
FLEXNERI	74	77	74	66	70	73	84	105	105	106	72	79	985
FLEXNERI 1 UNSPECIFIED	15	9	11	16	22	12	26	19	24	17	12	17	200
FLEXNERI 1A	.	2	1	.	.	1	2	.	.	.	3	.	9
FLEXNERI 1B	1	1	1	3	1	5	1	5	7	.	1	.	26
FLEXNERI 2 UNSPECIFIED	36	31	33	29	28	29	36	53	27	43	28	22	395
FLEXNERI 2A	7	9	10	6	8	8	6	12	5	11	11	9	102
FLEXNERI 2B	1	1	1	6	.	1	.	2	.	4	3	1	20
FLEXNERI 3 UNSPECIFIED	17	15	17	10	6	8	20	20	16	8	7	11	155
FLEXNERI 3A	1	4	.	1	.	3	3	8	2	4	1	1	28
FLEXNERI 3B	.	3	1	.	.	.	.	.	.	.	1	.	5
FLEXNERI 3C	1	.	.	.	.	3	1	.	.	1	1	.	7
FLEXNERI 4 UNSPECIFIED	6	8	7	9	9	11	12	15	11	10	11	7	116

(Continued)

TABLE 6

NUMBER OF REPORTED SHIGELLA ISOLATES BY MONTH FOR 1998

SERO TYPE	MONTH												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
FLEXNERI 4A	.	.	.	4	1	1	.	1	3	.	1	2	13
FLEXNERI 4B	.	.	.	.	.	.	1	.	1	.	1	1	4
FLEXNERI 5 UNSPECIFIED	4	.	5	1	3	4	6	8	6	6	10	3	56
FLEXNERI 6	1	3	6	6	5	3	12	14	9	7	4	8	78
FLEXNERI VARIANT X	.	.	.	.	.	.	2	1	2	.	1	.	6
FLEXNERI VARIANT Y	1	.	.	.	.	1	.	.	.	.	.	.	2
SONNEI	654	561	563	579	546	584	775	1058	1020	1232	1027	788	9387
UNKNOWN	27	31	34	30	34	21	48	64	91	102	57	57	596
TOTAL	858	778	790	781	762	783	1061	1430	1365	1593	1263	1021	12485

TABLE 7
NUMBER OF REPORTED SHIGELLA ISOLATES BY MONTH FOR 1984-1998

SEROTYPE	MONTH												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
BOYDII	159	155	129	114	188	215	287	350	389	398	287	257	2928
BOYDII 1	6	8	10	11	18	7	18	19	27	22	13	19	178
BOYDII 2	49	38	48	59	70	83	108	133	130	94	67	52	931
BOYDII 3	2	3	1	2	2	2	.	.	2	.	1	.	15
BOYDII 4	18	7	11	16	14	22	30	38	37	22	18	13	246
BOYDII 5	4	5	1	3	4	3	2	4	7	4	3	1	41
BOYDII 6	1	.	.	.	.	1	4	1	1	2	.	.	10
BOYDII 7	1	2	.	1	.	.	.	1	.	1	.	.	6
BOYDII 8	.	.	2	.	1	2	.	4	1	1	1	3	15
BOYDII 9	.	.	1	1	.	.	.	1	1	4	1	.	9
BOYDII 10	5	4	4	5	10	11	20	28	16	16	8	13	140
BOYDII 11	.	.	1	1	1	.	2	2	2	.	1	1	11
BOYDII 12	1	2	.	.	1	1	1	4	2	2	.	1	15
BOYDII 13	1	.	.	.	.	.	.	.	.	1	.	.	2
BOYDII 14	8	3	4	11	13	11	27	30	15	18	11	10	161
BOYDII 15	.	.	1	.	1	.	.	1	.	.	.	.	3
BOYDII 16	.	.	.	1	.	.	.	.	.	.	.	.	1
BOYDII 17	.	.	.	.	.	1	.	.	.	.	.	.	1
BOYDII 18	2	1	.	2	4	.	.	2	1	2	2	3	19
BOYDII 19	2	.	1	.	1	.	.	.	1	1	.	.	6
DYSENTERIAE	92	89	97	98	71	84	121	140	201	166	211	104	1474
DYSENTERIAE 1	9	4	5	11	7	6	15	22	12	19	3	17	130
DYSENTERIAE 2	18	41	25	18	17	24	43	35	28	22	21	14	306
DYSENTERIAE 3	5	5	9	9	18	12	17	34	27	10	11	9	166
DYSENTERIAE 4	2	6	3	1	2	3	2	6	4	2	2	3	36
DYSENTERIAE 5	.	.	.	.	1	.	.	.	2	.	.	.	3
DYSENTERIAE 6	.	.	.	.	1	.	2	1	1	.	1	.	6
DYSENTERIAE 7	.	1	.	1	2	1	.	1	.	.	.	.	6
DYSENTERIAE 8	.	1	.	.	1	.	1	.	.	.	1	.	4
DYSENTERIAE 9	.	1	1	3	5	2	4	4	2	3	5	3	33

(Continued)

TABLE 7

NUMBER OF REPORTED SHIGELLA ISOLATES BY MONTH FOR 1984-1998

SEROTYPE	MONTH												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
DYSENTERIAE 10	.	.	.	.	.	.	.	.	.	.	1	.	1
DYSENTERIAE 11	.	.	.	.	1	1	1	1	.	1	.	.	5
DYSENTERIAE 12	.	.	.	.	.	.	1	1	.	1	.	.	3
DYSENTERIAE 13	.	.	.	.	.	.	1	.	1	.	.	.	2
FLEXNERI	1949	1987	2095	2018	2030	1967	2528	2958	3127	3094	2514	2571	28838
FLEXNERI 1 UNSPECIFIED	339	280	321	294	345	355	447	500	514	501	323	333	4552
FLEXNERI 1A	34	42	50	36	41	36	41	75	63	55	35	24	532
FLEXNERI 1B	61	57	61	52	47	93	62	118	126	66	64	71	878
FLEXNERI 2 UNSPECIFIED	430	375	389	408	473	440	554	642	523	469	380	366	5449
FLEXNERI 2A	110	130	126	121	138	150	188	243	174	162	112	114	1768
FLEXNERI 2B	29	18	30	22	17	29	26	30	29	25	20	16	291
FLEXNERI 3 UNSPECIFIED	194	183	186	214	226	176	322	257	253	256	191	199	2657
FLEXNERI 3A	56	70	62	50	56	70	85	90	92	71	45	49	796
FLEXNERI 3B	7	10	19	8	9	11	11	23	6	10	11	5	130
FLEXNERI 3C	4	1	4	4	5	5	10	3	3	6	5	3	53
FLEXNERI 4 UNSPECIFIED	143	105	125	137	151	154	178	191	190	149	129	128	1780
FLEXNERI 4A	28	34	38	58	31	36	37	46	36	44	34	35	457
FLEXNERI 4B	5	2	2	4	6	6	10	2	7	2	4	2	52
FLEXNERI 5 UNSPECIFIED	28	22	29	17	30	49	47	42	45	36	30	25	400
FLEXNERI 6	90	83	105	123	100	116	194	193	223	175	138	92	1632
FLEXNERI VARIANT X	.	.	1	.	2	.	2	1	2	1	2	.	11
FLEXNERI VARIANT Y	3	1	2	.	2	1	.	1	1	1	2	.	14
SONNEI	9369	8123	9005	8700	10017	11722	14963	20146	19624	19477	15800	13784	160730
UNKNOWN	1041	1005	1068	1129	1425	1432	1766	2120	2353	2207	1782	1902	19230
TOTAL	14305	12904	14072	13763	15605	17340	22178	28544	28301	27619	22290	20242	237163

TABLE 8
 NUMBER OF REPORTED SHIGELLA ISOLATES BY REGION
 FOR 1984-1998

REGION	YEAR															TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
NEW ENGLAND	354	861	729	645	651	546	646	1757	555	520	414	586	373	486	366	9489
MID-ATLANTIC	1094	1607	1263	2331	1179	1310	1595	1263	1071	1215	1562	1758	2240	1874	1739	23101
EAST NORTH CENTRAL	1863	1494	1550	3816	3597	2673	2096	1643	2154	2816	1970	2105	1190	1457	1580	32004
WEST NORTH CENTRAL	495	387	330	671	1151	1359	630	403	589	828	1368	1391	699	494	623	11418
SOUTH ATLANTIC	997	683	686	1425	2562	2568	1894	1565	1727	2860	4790	2181	1912	1136	1275	28261
EAST SOUTH CENTRAL	114	188	60	219	683	482	799	915	305	768	1023	802	334	233	272	7197
WEST SOUTH CENTRAL	1263	1218	1611	1671	2535	1408	1832	1409	1453	2943	1771	1944	1225	1731	2427	26441
MOUNTAIN	1150	1223	1137	1174	1692	1161	1655	2248	1174	1348	1436	2713	1665	1238	764	21778
PACIFIC	5385	4215	4906	4812	8286	4465	6159	5302	5895	6213	4449	5850	4433	3665	3439	77474
TOTAL	12715	11876	12272	16764	22336	15972	17306	16505	14923	19511	18783	19330	14071	12314	12485	237163

TABLE 8A

NUMBER OF REPORTED *S. SONNEI* ISOLATES BY REGION
FOR 1984-1998

REGION	YEAR															TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
NEW ENGLAND	214	713	596	491	481	358	448	1573	435	428	302	456	264	341	248	7348
MID-ATLANTIC	823	1128	772	2030	883	1015	1321	1020	880	985	1325	1527	2048	1664	1470	18891
EAST NORTH CENTRAL	1458	1110	1123	3279	2685	2061	1443	1176	1671	2440	1707	1773	896	1242	1354	25418
WEST NORTH CENTRAL	354	246	147	503	870	1084	446	255	478	698	1166	1281	575	405	538	9046
SOUTH ATLANTIC	704	450	462	1099	2155	2268	1535	1210	1451	2280	2695	1966	1772	999	1121	22167
EAST SOUTH CENTRAL	103	179	52	136	523	319	513	587	152	341	649	511	232	211	262	4770
WEST SOUTH CENTRAL	767	817	1161	1293	2103	1022	1415	1072	1268	2765	1595	1721	1085	1514	2239	21837
MOUNTAIN	575	554	571	470	921	522	1124	1601	722	824	920	2180	1115	695	374	13168
PACIFIC	2792	1878	2421	1981	4407	1593	2871	2240	3049	3578	2087	3396	2275	1736	1781	38085
TOTAL	7790	7075	7305	11282	15028	10242	11116	10734	10106	14339	12446	14811	10262	8807	9387	160730

TABLE 8B

NUMBER OF REPORTED S. FLEXNERI ISOLATES BY REGION
FOR 1984-1998

REGION	YEAR																TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
NEW ENGLAND	114	128	93	109	127	150	122	94	107	92	106	115	94	123	102	1676	
MID-ATLANTIC	256	377	341	278	257	269	254	227	177	211	213	206	179	188	247	3680	
EAST NORTH CENTRAL	344	326	314	361	422	439	465	339	330	287	238	289	267	185	191	4797	
WEST NORTH CENTRAL	103	108	168	134	156	168	125	115	77	67	121	71	105	82	79	1679	
SOUTH ATLANTIC	102	90	116	154	143	101	156	124	137	173	343	196	122	120	136	2213	
EAST SOUTH CENTRAL	10	8	6	9	8	9	10	8	2	4	18	7	7	20	9	135	
WEST SOUTH CENTRAL	435	346	380	328	376	333	367	280	170	136	141	188	113	184	146	3923	
MOUNTAIN	509	548	496	556	503	472	381	491	371	382	353	464	441	484	352	6803	
PACIFIC	1879	1602	1653	1831	2346	1741	2151	2034	1879	1709	1568	1483	1376	1187	945	25384	
TOTAL	3752	3533	3567	3760	4338	3682	4031	3712	3250	3061	3101	3019	2704	2573	2207	50290	

TABLE 8C

NUMBER OF REPORTED S. BOYDII ISOLATES BY REGION
FOR 1984-1998

REGION	YEAR																	TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998			
NEW ENGLAND	10	8	6	14	7	16	17	12	4	.	5	11	6	14	6	136		
MID-ATLANTIC	8	16	16	16	21	17	10	10	6	11	15	12	5	13	10	186		
EAST NORTH CENTRAL	38	35	37	28	64	42	29	20	16	30	19	31	19	23	25	456		
WEST NORTH CENTRAL	4	1	1	2	6	5	5	7	3	.	7	6	3	4	4	58		
SOUTH ATLANTIC	2	3	6	7	5	10	8	8	5	10	27	7	10	7	9	124		
EAST SOUTH CENTRAL	1	.	1	2	2	1	1	.	1	.	.	.	2	.	.	11		
WEST SOUTH CENTRAL	35	33	54	36	39	37	35	44	11	33	24	27	19	27	17	471		
MOUNTAIN	34	66	43	59	52	48	47	30	14	14	18	32	91	41	22	611		
PACIFIC	254	196	209	192	276	290	246	181	164	123	92	103	120	124	115	2685		
TOTAL	386	358	373	356	472	466	398	312	224	221	207	229	275	253	208	4738		

TABLE 8D

NUMBER OF REPORTED *S. DYSENTERIAE* ISOLATES BY REGION
FOR 1984-1998

REGION	YEAR																	TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998			
NEW ENGLAND	6	5	4	4	12	9	8	6	6	•	•	3	6	6	10	85		
MID-ATLANTIC	7	16	11	7	18	9	9	6	8	2	6	6	6	8	7	126		
EAST NORTH CENTRAL	20	20	7	27	21	23	15	11	21	4	6	11	8	2	9	205		
WEST NORTH CENTRAL	2	3	3	8	8	7	3	1	6	1	2	1	2	2	1	50		
SOUTH ATLANTIC	4	1	2	4	4	2	5	6	4	4	5	2	8	5	6	62		
EAST SOUTH CENTRAL	•	1	1	1	2	•	2	•	1	1	1	•	•	2	1	13		
WEST SOUTH CENTRAL	26	20	13	12	17	15	14	10	2	9	10	5	7	6	9	175		
MOUNTAIN	19	14	9	10	8	25	7	12	5	12	9	6	18	12	16	182		
PACIFIC	95	129	68	159	121	126	118	93	73	72	55	56	48	36	28	1277		
TOTAL	179	209	118	232	211	216	181	145	126	105	94	90	103	79	87	2175		

TABLE 8E

NUMBER OF REPORTED SHIGELLA ISOLATES WITH UNKNOWN SEROGROUP
BY REGION FOR 1984-1998

REGION	YEAR																	TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998			
NEW ENGLAND	10	7	30	27	24	13	51	72	3	.	1	1	3	2	.	244		
MID-ATLANTIC	.	70	123	.	.	.	1	.	.	6	3	7	2	1	5	218		
EAST NORTH CENTRAL	3	3	69	121	405	108	144	97	116	55	.	1	.	5	1	1128		
WEST NORTH CENTRAL	32	29	11	24	111	95	51	25	25	62	72	32	14	1	1	585		
SOUTH ATLANTIC	185	139	100	161	255	187	190	217	130	393	1720	10	.	5	3	3695		
EAST SOUTH CENTRAL	.	.	.	71	148	153	273	320	149	422	355	284	93	.	.	2268		
WEST SOUTH CENTRAL	.	2	3	2	.	1	1	3	2	.	1	3	1	.	16	35		
MOUNTAIN	13	41	18	79	208	94	96	114	62	116	136	31	.	6	.	1014		
PACIFIC	365	410	555	649	1136	715	773	754	730	731	647	812	614	582	570	10043		
TOTAL	608	701	909	1134	2287	1366	1580	1602	1217	1785	2935	1181	727	602	596	19230		

TABLE 9

NUMBER OF REPORTED SHIGELLA SUBGROUP ISOLATES BY YEAR FOR 1984-1998

SUBGROUP	YEAR															TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
BOYDII	386	358	373	356	472	466	398	312	224	221	207	229	275	253	208	4738
DYSENTERIAE	179	209	118	232	211	216	181	145	126	105	94	90	103	79	87	2175
FLEXNERI	3752	3533	3567	3760	4338	3682	4031	3712	3250	3061	3101	3019	2704	2573	2207	50290
SONNEI	7790	7075	7305	11282	15028	10242	11116	10734	10106	14339	12446	14811	10262	8807	9387	160730
UNKNOWN	608	701	909	1134	2287	1366	1580	1602	1217	1785	2935	1181	727	602	596	19230
TOTAL	12715	11876	12272	16764	22336	15972	17306	16505	14923	19511	18783	19330	14071	12314	12485	237163

TABLE 10

NUMBER OF REPORTED SHIGELLA ISOLATES BY STATE FOR 1984-1998

STATE	YEAR																TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
ALABAMA	78	155	50	122	444	332	514	450	160	341	479	383	110	193	220	4031	
ALASKA	11	19	2	5	9	14	7	30	19	21	14	10	59	3	7	230	
ARIZONA	450	599	513	512	365	291	498	577	399	369	401	815	695	694	348	7526	
ARKANSAS	14	22	27	44	94	43	20	91	18	100	61	96	100	60	67	857	
CALIFORNIA	4873	3845	4489	4341	7883	4132	5703	4473	5217	5175	3757	5347	3879	3222	3033	69369	
COLORADO	277	101	158	290	371	411	385	216	364	614	529	485	484	199	164	5048	
CONNECTICUT	101	107	112	203	162	233	192	108	131	212	146	148	121	81	66	2123	
DELAWARE	2	25	1	.	20	60	109	4	7	60	11	125	66	21	38	549	
DISTRICT OF COLUMBIA	.	.	188	240	142	12	59	45	63	26	19	199	200	8	.	1201	
FLORIDA	106	181	64	35	487	500	199	378	263	248	721	319	275	245	539	4560	
GEORGIA	211	196	133	331	657	518	620	532	560	494	2062	176	173	244	252	7159	
HAWAII	166	154	81	82	59	69	60	80	119	89	193	102	86	55	51	1446	
IDAHO	25	5	.	.	.	1	2	.	13	16	30	74	54	39	15	274	
ILLINOIS	1008	973	1020	2516	1593	883	932	759	910	1142	1030	1215	525	842	1308	16656	
INDIANA	247	86	76	296	925	306	350	334	209	173	181	103	71	30	43	3430	
IOWA	98	19	22	108	320	82	47	30	42	45	323	240	115	72	46	1609	
KANSAS	52	63	65	21	52	82	62	56	83	110	57	106	32	80	62	983	
KENTUCKY	29	16	10	2	34	16	11	204	28	45	83	86	45	40	45	694	
LOUISIANA	242	127	279	440	517	325	214	120	87	303	314	378	344	114	288	4092	
MAINE	12	12	6	7	7	9	5	4	9	2	4	.	6	.	.	83	
MARYLAND	152	95	101	428	540	151	147	50	276	262	201	226	447	176	69	3321	
MASSACHUSETTS	197	683	541	324	325	244	341	1387	240	256	209	288	169	299	260	5763	

(Continued)

TABLE 10

NUMBER OF REPORTED SHIGELLA ISOLATES BY STATE FOR 1984-1998

STATE	YEAR																TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
MICHIGAN	173	261	113	283	473	772	342	193	494	645	329	454	341	249	5	5127	
MINNESOTA	111	175	66	163	349	426	122	80	90	236	467	166	164	141	334	3090	
MISSISSIPPI	7	17	.	95	205	134	274	261	117	382	461	333	179	.	7	2472	
MISSOURI	151	59	45	291	316	213	170	139	273	336	292	609	272	161	136	3463	
MONTANA	15	51	26	42	258	97	46	136	120	12	2	203	28	5	3	1044	
NEBRASKA	1	3	11	3	.	1	5	1	6	1	2	4	4	17	19	78	
NEVADA	4	2	8	6	4	27	8	2	6	3	2	19	13	13	20	137	
NEW HAMPSHIRE	13	28	39	28	54	27	63	40	6	10	10	79	26	21	22	466	
NEW JERSEY	389	358	158	268	216	216	202	226	220	274	388	675	342	480	652	5064	
NEW MEXICO	304	374	300	273	606	254	462	303	164	272	235	408	177	192	177	4501	
NEW YORK	404	857	723	1785	475	423	770	361	451	453	697	548	305	790	828	9870	
NORTH CAROLINA	315	99	110	88	306	932	555	228	307	1089	1130	593	186	173	183	6294	
NORTH DAKOTA	24	19	19	25	28	193	143	25	13	13	59	126	58	3	3	751	
OHIO	239	114	54	127	128	403	212	97	77	585	276	260	221	307	153	3253	
OKLAHOMA	55	128	127	97	75	93	187	130	97	214	85	132	157	134	213	1924	
OREGON	99	55	46	51	50	51	101	350	144	108	87	113	125	173	156	1709	
PENNSYLVANIA	301	392	382	278	488	671	623	676	400	488	477	535	1593	604	259	8167	
RHODE ISLAND	19	26	25	72	34	28	30	214	163	32	43	65	43	83	13	890	
SOUTH CAROLINA	107	36	14	99	83	112	110	38	68	113	180	115	78	30	99	1282	
SOUTH DAKOTA	58	49	102	60	86	362	81	72	82	87	168	140	54	20	23	1444	
TENNESSEE	167	192	101	321	1002	256	257	193	561	1049	709	440	242	343	958	6791	
TEXAS	785	749	1077	769	847	691	1154	875	690	1277	602	898	382	1080	901	12777	

(Continued)

TABLE 10

NUMBER OF REPORTED SHIGELLA ISOLATES BY STATE FOR 1984-1998

STATE	YEAR																TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
UTAH	72	91	132	51	88	80	254	1014	108	54	235	705	212	95	36	3227	
VERMONT	12	5	6	11	69	5	15	4	6	8	2	6	8	2	5	164	
VIRGINIA	99	33	57	169	305	260	74	257	165	530	466	401	456	226	87	3585	
WASHINGTON	236	142	288	333	285	199	288	369	396	820	398	278	284	212	192	4720	
WEST VIRGINIA	5	18	18	35	22	23	21	33	18	38	.	27	31	13	8	310	
WISCONSIN	196	60	287	594	478	309	260	260	464	271	154	73	32	29	71	3538	
WYOMING	3	.	.	.	.	.	.	.	.	8	2	4	2	1	1	21
TOTAL	12715	11876	12272	16764	22336	15972	17306	16505	14923	19511	18783	19330	14071	12314	12485	237163	

TABLE 10A

NUMBER OF REPORTED S. SONNEI ISOLATES BY STATE FOR 1984-1998

STATE	YEAR																	TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998			
ALABAMA	69	150	42	69	391	262	365	361	111	200	356	281	103	184	215	3159		
ALASKA	7	16	.	4	6	5	2	26	17	13	10	10	53	2	7	178		
ARIZONA	253	212	169	202	112	73	309	294	166	149	196	523	327	373	126	3484		
ARKANSAS	11	18	23	42	87	38	19	89	16	99	58	96	97	60	63	816		
CALIFORNIA	2506	1714	2176	1670	4209	1448	2632	1632	2580	2806	1657	3126	1993	1508	1568	33225		
COLORADO	145	47	92	124	228	236	255	112	245	444	329	365	394	129	99	3244		
CONNECTICUT	72	81	95	172	132	207	172	93	101	199	117	127	104	57	43	1772		
DELAWARE	1	25	.	.	20	60	108	3	6	58	8	122	66	16	37	530		
DISTRICT OF COLUMBIA	.	.	146	205	109	7	39	20	45	12	4	166	188	4	.	945		
FLORIDA	103	178	58	27	480	495	188	371	252	237	694	305	261	233	529	4411		
GEORGIA	23	43	43	155	392	313	399	293	404	68	149	131	141	213	205	2972		
HAWAII	91	71	44	34	18	24	22	23	46	26	125	44	17	23	24	632		
IDAHO	12	1	.	.	.	.	1	.	10	9	17	72	50	30	5	207
ILLINOIS	745	674	767	2231	1238	559	567	524	674	910	860	995	339	702	1116	12901		
INDIANA	220	75	56	219	545	202	224	238	168	160	161	85	57	22	29	2461		
IOWA	80	7	15	90	200	51	29	18	27	34	263	231	101	57	40	1243		
KANSAS	36	49	54	12	43	73	48	41	73	104	47	100	22	75	49	826		
KENTUCKY	27	15	10	.	33	14	9	200	27	43	76	84	43	27	42	650		
LOUISIANA	195	84	249	407	492	304	195	103	78	288	304	365	329	102	273	3768		
MAINE	5	11	3	5	6	5	3	3	5	2	3	.	.	.	.	51
MARYLAND	122	65	64	391	516	130	115	35	239	213	134	194	413	154	38	2823		
MASSACHUSETTS	116	592	474	243	223	125	227	1300	176	187	143	206	109	194	171	4486		

(Continued)

TABLE 10A

NUMBER OF REPORTED S. SONNEI ISOLATES BY STATE FOR 1984-1998

STATE	YEAR																TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
MICHIGAN	133	224	77	225	422	706	284	142	408	590	287	387	285	209	5	4384	
MINNESOTA	60	122	30	114	305	314	56	42	54	166	385	133	105	95	290	2271	
MISSISSIPPI	7	14	.	67	99	43	139	26	14	98	217	146	86	.	5	961	
MISSOURI	142	54	33	274	291	187	144	117	264	329	280	599	260	150	125	3249	
MONTANA	3	3	8	19	108	66	14	122	118	11	1	196	27	4	1	701	
NEBRASKA	1	1	5	2	.	1	.	1	5	1	2	4	3	17	18	61	
NEVADA	3	1	6	4	.	21	3	.	4	2	2	13	9	4	10	82	
NEW HAMPSHIRE	4	16	11	10	38	5	29	29	3	7	8	76	21	18	20	295	
NEW JERSEY	329	304	120	223	150	160	155	180	177	222	331	599	285	428	558	4221	
NEW MEXICO	137	242	216	107	434	100	333	184	85	176	175	327	108	111	118	2853	
NEW YORK	241	479	362	1578	313	267	602	231	347	321	557	427	219	677	689	7310	
NORTH CAROLINA	289	71	92	61	276	911	514	200	284	1059	1105	560	164	136	154	5876	
NORTH DAKOTA	20	7	4	11	13	176	135	20	5	5	37	95	47	2	2	579	
OHIO	214	94	42	103	110	377	187	84	68	575	266	246	203	295	137	3001	
OKLAHOMA	27	104	88	78	63	81	176	116	87	209	77	116	147	129	208	1706	
OREGON	58	15	32	26	22	15	59	317	116	53	50	73	59	111	89	1095	
PENNSYLVANIA	253	345	290	229	420	588	564	609	356	442	437	501	1544	559	223	7360	
RHODE ISLAND	11	10	9	53	24	13	14	144	147	27	29	45	24	70	9	629	
SOUTH CAROLINA	99	33	10	93	74	107	100	31	58	111	172	110	75	23	94	1190	
SOUTH DAKOTA	15	6	6	.	18	282	34	16	50	59	152	119	37	9	14	817	
TENNESSEE	156	179	85	304	984	248	248	181	547	1028	692	418	228	321	947	6566	
TEXAS	378	432	716	462	477	351	777	583	540	1141	464	726	284	902	748	8981	

(Continued)

TABLE 10A

NUMBER OF REPORTED S. SONNEI ISOLATES BY STATE FOR 1984-1998

STATE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
UTAH	20	48	80	14	39	26	209	889	94	30	200	680	199	43	14	2585
VERMONT	6	3	4	8	58	3	3	4	3	6	2	2	6	2	5	115
VIRGINIA	67	23	41	141	274	234	55	232	148	498	429	351	435	207	56	3191
WASHINGTON	130	62	169	247	152	101	156	242	290	680	245	143	153	92	93	2955
WEST VIRGINIA	.	12	8	26	14	11	17	25	15	24	.	27	29	13	8	229
WISCONSIN	146	43	181	501	370	217	181	188	353	205	133	60	12	14	67	2671
WYOMING	2	.	.	.	.	.	.	.	.	3	.	4	1	1	1	12
TOTAL	7790	7075	7305	11282	15028	10242	11116	10734	10106	14339	12446	14811	10262	8807	9387	160730

TABLE 10B

NUMBER OF REPORTED S. FLEXNERI ISOLATES BY STATE FOR 1984-1998

STATE	YEAR																	TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998			
ALABAMA	8	4	6	6	3	3	6	3	3	2	11	5	7	7	5	76		
ALASKA	4	2	1	1	3	8	2	4	2	6	4	.	6	1	.	44		
ARIZONA	175	337	312	261	208	181	150	259	225	212	197	263	279	287	202	3548		
ARKANSAS	3	3	4	1	6	3	1	1	2	1	2	.	2	.	4	33		
CALIFORNIA	1669	1410	1497	1689	2175	1577	1957	1831	1689	1478	1323	1269	1130	1000	767	22461		
COLORADO	115	46	57	106	82	96	65	71	52	44	61	87	83	58	57	1080		
CONNECTICUT	24	23	15	24	25	21	17	13	26	13	25	18	15	23	15	297		
DELAWARE	.	.	.	.	.	.	1	1	1	1	2	3	.	5	1	15
DISTRICT OF COLUMBIA	.	.	20	23	30	4	19	24	18	13	15	28	10	4	.	208		
FLORIDA	3	3	6	7	7	4	9	4	8	9	5	12	10	11	8	106		
GEORGIA	7	17	17	28	13	29	31	27	32	44	198	41	30	26	43	583		
HAWAII	74	82	36	47	41	42	36	57	72	63	68	57	67	31	25	798		
IDAHO	13	4	.	.	.	.	1	.	3	7	13	2	4	9	9	65
ILLINOIS	230	260	213	253	285	283	340	222	208	204	157	192	167	124	163	3301		
INDIANA	21	10	18	19	25	29	21	24	8	12	17	17	14	8	11	254		
IOWA	14	8	5	11	24	18	8	8	7	5	11	9	13	15	6	162		
KANSAS	15	14	9	6	9	9	12	13	7	6	9	5	9	4	12	139		
KENTUCKY	2	1	.	1	1	2	2	4	.	2	6	2	.	13	2	38		
LOUISIANA	46	40	29	33	22	21	19	16	8	13	10	12	14	11	15	309		
MAINE	7	1	3	2	.	4	.	1	4	.	1	.	6	.	.	29		
MARYLAND	28	30	34	35	23	20	31	11	31	45	61	32	32	18	29	460		
MASSACHUSETTS	72	88	61	73	89	103	95	71	60	69	66	73	50	90	81	1141		

(Continued)

TABLE 10B

NUMBER OF REPORTED S. FLEXNERI ISOLATES BY STATE FOR 1984-1998

STATE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
MICHIGAN	37	27	34	53	47	53	50	45	82	51	39	59	54	34	.	665
MINNESOTA	20	30	27	32	23	32	26	20	20	16	75	28	53	40	39	476
MISSISSIPPI	.	3	.	2	4	4	2	1	2	.	1	.	.	.	2	21
MISSOURI	7	5	11	15	21	21	26	18	8	7	10	8	11	11	11	190
MONTANA	7	14	5	4	7	2	7	9	1	1	1	6	1	.	2	67
NEBRASKA	.	2	6	1	.	.	5	.	.	.	.	.	1	.	1	16
NEVADA	.	1	2	2	4	6	4	1	2	.	.	5	.	6	8	41
NEW HAMPSHIRE	2	3	3	3	4	9	2	2	3	3	2	3	3	2	2	46
NEW JERSEY	53	51	34	41	58	51	44	43	42	42	49	69	49	46	85	757
NEW MEXICO	158	114	74	151	165	145	124	110	75	89	52	78	65	74	53	1527
NEW YORK	156	282	231	192	144	142	155	122	93	125	128	107	81	101	126	2185
NORTH CAROLINA	25	28	17	25	27	18	39	26	23	30	22	32	20	34	23	389
NORTH DAKOTA	4	6	15	14	12	16	5	1	3	5	.	.	1	1	1	84
OHIO	23	16	12	18	15	24	21	10	9	6	5	9	16	7	13	204
OKLAHOMA	25	22	35	16	11	9	10	11	9	4	5	14	8	4	3	186
OREGON	33	36	14	17	18	27	39	31	19	47	32	37	61	54	60	525
PENNSYLVANIA	47	44	76	45	55	76	55	62	42	44	36	30	49	41	36	738
RHODE ISLAND	6	11	10	5	8	12	3	7	13	5	12	19	18	8	4	141
SOUTH CAROLINA	8	2	4	6	9	5	10	7	9	1	7	5	3	7	5	88
SOUTH DAKOTA	43	43	95	60	67	72	43	55	32	28	16	21	17	11	9	612
TENNESSEE	10	13	11	13	17	6	8	12	14	14	13	21	14	20	9	195
TEXAS	351	268	301	265	320	294	329	240	137	104	111	141	75	149	115	3200

(Continued)

TABLE 10B

NUMBER OF REPORTED S. FLEXNERI ISOLATES BY STATE FOR 1984-1998

STATE	YEAR																TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
UTAH	41	32	46	32	37	42	30	41	13	24	29	23	8	50	21	469	
VERMONT	3	2	1	2	1	1	5	.	1	2	.	2	2	.	.	22	
VIRGINIA	30	8	16	27	30	19	15	24	15	28	33	43	15	15	27	345	
WASHINGTON	99	72	105	77	109	87	117	111	97	115	141	120	112	101	93	1556	
WEST VIRGINIA	1	2	2	3	4	2	1	.	.	2	.	.	2	.	.	19	
WISCONSIN	33	13	37	18	50	50	33	38	23	14	20	12	16	12	4	373	
WYOMING	.	.	.	.	.	.	.	.	.	5	.	.	1	.	.	6
TOTAL	3752	3533	3567	3760	4338	3682	4031	3712	3250	3061	3101	3019	2704	2573	2207	50290	

TABLE 10C

NUMBER OF REPORTED S. BOYDII ISOLATES BY STATE FOR 1984-1998

STATE	YEAR																TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
ALABAMA	1	.	1	1	1	1	.	.	.	.	.	.	.	.	.	5
ALASKA	.	1	.	.	.	.	2	.	.	1	.	.	.	.	.	4
ARIZONA	21	47	30	43	38	30	35	17	6	5	5	22	73	26	9	407	
ARKANSAS	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1
CALIFORNIA	248	185	201	181	258	274	232	171	151	105	81	91	102	105	103	2488	
COLORADO	5	2	6	3	7	11	5	4	3	3	3	5	6	10	5	78	
CONNECTICUT	2	2	1	5	2	1	1	2	2	.	3	3	1	1	3	29	
DELAWARE	.	.	1	.	.	.	.	.	.	1	1	.	.	.	.	3
DISTRICT OF COLUMBIA	.	.	1	1	1	1	.	1	.	.	.	2	.	.	.	7	
FLORIDA	.	.	.	.	.	1	1	2	.	.	.	.	1	1	1	7
GEORGIA	.	1	2	2	.	1	2	2	1	2	19	.	1	1	.	34	
HAWAII	.	1	1	1	.	1	.	.	1	.	.	1	1	.	2	9	
IDAHO	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1
ILLINOIS	22	23	35	19	54	27	15	9	9	26	10	18	15	16	22	320	
INDIANA	4	1	.	2	1	2	2	3	.	.	2	1	.	.	1	19	
IOWA	1	1	.	.	1	1	1	.	1	.	1	.	1	.	.	8	
KANSAS	.	.	.	2	.	.	2	2	.	.	1	1	.	1	1	10	
KENTUCKY	.	.	.	.	.	.	.	.	1	.	.	.	2	.	.	3
LOUISIANA	.	2	1	.	2	.	.	1	.	2	.	1	1	1	.	11	
MAINE	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	1
MARYLAND	.	.	1	2	.	.	1	2	2	4	3	.	2	2	2	21	
MASSACHUSETTS	7	2	4	7	5	11	14	10	2	.	.	6	4	10	3	85	

(Continued)

TABLE 10C
 NUMBER OF REPORTED S. BOYDII ISOLATES BY STATE FOR 1984-1998

STATE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
MICHIGAN	2	7	2	1	1	5	5	3	2	3	2	7	1	4	.	45
MINNESOTA	1	.	.	.	5	1	2	1	1	.	3	4	2	3	3	26
MISSISSIPPI	.	.	.	1	1	.	1	.	.	.	.	.	.	.	.	3
MISSOURI	2	.	.	.	.	2	.	3	1	.	2	1	.	.	.	11
MONTANA	.	.	1	.	.	.	1	.	.	.	.	.	.	1	.	3
NEVADA	1	.	.	.	.	.	1	1	.	.	.	1	4	1	2	11
NEW HAMPSHIRE	.	3	.	.	.	1	.	.	.	.	.	.	.	.	.	4
NEW JERSEY	4	1	2	2	7	3	3	1	.	3	5	3	3	4	2	43
NEW MEXICO	6	14	6	11	5	5	4	7	4	6	6	3	3	1	4	85
NEW YORK	3	14	2	10	12	11	6	4	6	6	7	7	2	8	8	106
NORTH CAROLINA	1	.	1	.	3	.	.	1	.	.	2	1	1	1	5	16
OHIO	2	2	.	1	1	1	3	3	.	1	4	4	1	.	2	25
OKLAHOMA	2	.	3	3	.	1	1	.	.	1	3	1	.	.	1	16
OREGON	2	3	.	4	1	6	2	1	6	7	3	2	3	4	5	49
PENNSYLVANIA	1	1	12	4	2	3	1	5	.	2	3	2	.	1	.	37
RHODE ISLAND	.	1	.	2	.	2	1	.	.	.	2	1	1	3	.	13
SOUTH CAROLINA	.	.	.	.	.	.	.	.	1	1	.	.	.	.	.	2
SOUTH DAKOTA	.	.	1	.	.	1	.	1	.	.	.	.	.	.	.	3
TENNESSEE	.	.	4	1	.	1	1	.	.	4	1	.	.	1	2	15
TEXAS	33	31	46	32	36	35	33	43	11	26	20	25	18	25	14	428
UTAH	1	3	.	2	2	2	1	1	1	.	3	1	5	2	1	25
VERMONT	1	.	1	.	.	1	.	.	.	.	.	1	.	.	.	4

(Continued)

TABLE 10C

NUMBER OF REPORTED S. BOYDII ISOLATES BY STATE FOR 1984-1998

STATE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
VIRGINIA	1	2	.	1	1	7	3	.	1	2	2	4	5	2	1	32
WASHINGTON	4	6	7	6	17	9	10	9	6	10	8	9	14	15	5	135
WEST VIRGINIA	.	.	.	1	.	.	1	.	.	.	.	.	.	.	.	2
WISCONSIN	8	2	.	5	7	7	4	2	5	.	1	1	2	3	.	47
WYOMING	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1
TOTAL	386	358	373	356	472	466	398	312	224	221	207	229	275	253	208	4738

TABLE 10D
NUMBER OF REPORTED S. DYSENTERIAE ISOLATES BY STATE FOR 1984-1998

STATE	YEAR															TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
ALABAMA	.	1	1	.	2	.	2	.	1	1	.	.	.	2	.	10
ALASKA	.	.	1	.	.	1	.	.	.	1	.	.	.	.	.	3
ARIZONA	1	3	2	6	.	7	4	6	2	3	3	4	16	8	11	76
ARKANSAS	.	.	.	.	.	1	.	.	.	.	1	.	1	.	.	3
CALIFORNIA	91	127	62	152	114	120	110	86	69	65	51	50	40	27	25	1189
COLORADO	12	5	3	4	6	10	1	3	2	7	2	2	1	2	3	63
CONNECTICUT	3	1	.	1	3	4	2	.	2	.	.	.	1	.	5	22
DISTRICT OF COLUMBIA	.	.	.	.	.	.	1	.	.	.	.	.	2	.	.	3
FLORIDA	.	.	.	1	.	.	1	1	2	1	.	.	3	.	1	10
GEORGIA	1	.	1	1	3	1	.	1	.	2	3	.	1	1	1	16
HAWAII	1	.	.	.	.	1	2	.	.	.	.	.	1	1	.	6
ILLINOIS	8	13	5	11	15	14	8	4	18	2	3	10	4	.	7	122
INDIANA	2	.	2	1	.	2	1	2	2	1	1	.	.	.	2	16
IOWA	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	1
KANSAS	1	.	2	1	.	.	.	.	3	.	.	.	1	.	.	8
KENTUCKY	.	.	.	1	.	.	.	.	.	.	1	.	.	.	1	3
LOUISIANA	1	1	.	.	1	.	.	.	.	.	.	.	.	.	.	3
MAINE	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	2
MARYLAND	2	.	1	.	1	1	.	2	2	.	.	.	.	1	.	10
MASSACHUSETTS	2	1	2	1	8	5	5	6	2	.	.	2	5	3	5	47
MICHIGAN	1	3	.	3	2	5	3	3	.	1	1	1	1	2	.	26
MINNESOTA	1	3	1	4	2	3	2	.	.	1	2	1	1	2	1	24

(Continued)

TABLE 10D

NUMBER OF REPORTED S. DYSENTERIAE ISOLATES BY STATE FOR 1984-1998

STATE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
MISSOURI	.	.	.	2	4	3	.	1	.	.	.	.	.	.	.	10
MONTANA	.	.	.	.	.	1	.	.	1	.	.	.	.	.	.	2
NEBRASKA	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	1
NEVADA	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	1
NEW HAMPSHIRE	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	2
NEW JERSEY	3	2	1	2	1	2	.	2	1	2	1	.	5	2	5	29
NEW MEXICO	3	4	4	.	2	4	1	2	.	1	2	.	1	2	2	28
NEW YORK	4	13	6	5	6	3	6	4	5	.	4	4	1	3	2	66
NORTH CAROLINA	.	.	.	2	.	.	2	1	.	.	.	.	1	2	1	9
NORTH DAKOTA	.	.	.	.	1	1	.	.	2	.	.	.	.	.	.	4
OHIO	.	2	.	3	2	1	.	.	.	.	1	.	1	.	.	10
OKLAHOMA	1	2	1	.	1	2	.	2	1	.	.	.	1	1	.	12
OREGON	1	.	.	4	.	2	1	.	1	1	2	1	2	4	2	21
PENNSYLVANIA	.	1	4	.	11	4	3	.	2	.	1	2	.	3	.	31
RHODE ISLAND	.	3	2	2	.	.	.	.	2	.	.	.	.	2	.	11
SOUTH CAROLINA	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1
SOUTH DAKOTA	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	2
TENNESSEE	1	.	.	3	1	1	.	.	.	3	2	.	.	1	.	12
TEXAS	23	17	12	9	14	11	14	8	1	6	7	5	5	4	9	145
UTAH	2	2	.	.	.	3	1	1	.	.	1	.	.	.	.	10
VERMONT	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1
VIRGINIA	1	.	.	.	.	.	1	1	.	1	2	2	1	1	3	13

(Continued)

TABLE 10D

NUMBER OF REPORTED *S. DYSENTERIAE* ISOLATES BY STATE FOR 1984-1998

STATE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
WASHINGTON	2	2	5	3	7	2	5	7	3	5	2	5	5	4	1	58
WISCONSIN	9	2	.	9	2	1	3	2	1	.	.	.	2	.	.	31
WYOMING	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	2
TOTAL	179	209	118	232	211	216	181	145	126	105	94	90	103	79	87	2175

TABLE 10E

NUMBER OF REPORTED SHIGELLA ISOLATES WITH UNKNOWN SEROGROUP FOR 1984-1998

STATE	YEAR														TOTAL	
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997		1998
ALABAMA	.	.	.	46	47	66	141	86	48	138	112	97	.	.	.	781
ALASKA	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	1
ARIZONA	.	.	.	.	7	.	.	1	.	.	.	3	.	.	.	11
ARKANSAS	.	1	.	1	.	1	.	1	.	.	.	.	.	.	.	4
CALIFORNIA	359	409	553	649	1127	713	772	753	728	721	645	811	614	582	570	10006
COLORADO	.	1	.	53	48	58	59	26	62	116	134	26	.	.	.	583
CONNECTICUT	.	.	1	1	.	.	.	.	.	.	1	.	.	.	.	3
DELAWARE	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
DISTRICT OF COLUMBIA	.	.	21	11	2	.	.	.	.	1	.	3	.	.	.	38
FLORIDA	.	.	.	.	.	.	.	.	1	1	22	2	.	.	.	26
GEORGIA	180	135	70	145	249	174	188	209	123	378	1693	4	.	3	3	3554
HAWAII	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1
IDAHO	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1
ILLINOIS	3	3	.	2	1	.	2	.	1	.	.	.	.	.	.	12
INDIANA	.	.	.	55	354	71	102	67	31	.	.	.	.	.	.	680
IOWA	3	3	2	6	95	12	9	4	7	6	48	.	.	.	.	195
LOUISIANA	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	1
MARYLAND	.	.	1	.	.	.	.	.	2	.	3	.	.	1	.	7
MASSACHUSETTS	.	.	.	.	.	.	.	.	.	.	.	1	1	2	.	4
MICHIGAN	.	.	.	1	1	3	.	.	2	.	.	.	.	.	.	7
MINNESOTA	29	20	8	18	14	76	36	17	15	53	2	.	3	1	1	293
MISSISSIPPI	.	.	.	25	101	87	132	234	101	284	243	187	93	.	.	1487

(Continued)

TABLE 10E

NUMBER OF REPORTED SHIGELLA ISOLATES WITH UNKNOWN SEROGROUP FOR 1984-1998

STATE	YEAR																TOTAL
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
MISSOURI	.	.	1	.	.	.	.	.	.	.	.	.	1	1	.	3
MONTANA	5	34	12	19	143	28	24	5	.	.	.	1	.	.	.	271	
NEVADA	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	2
NEW HAMPSHIRE	6	6	25	15	12	12	32	9	.	.	.	.	2	.	.	119
NEW JERSEY	.	.	1	.	.	.	.	.	.	5	2	4	.	.	2	14
NEW MEXICO	.	.	.	4	.	.	.	.	.	.	.	.	.	4	.	8
NEW YORK	.	69	122	.	.	.	1	.	.	1	1	3	2	1	3	203	
NORTH CAROLINA	.	.	.	.	.	3	.	.	.	.	1	.	.	.	.	4
NORTH DAKOTA	.	6	.	.	2	.	3	4	3	3	22	31	10	.	.	84	
OHIO	.	.	.	2	.	.	1	.	.	3	.	1	.	5	1	13	
OKLAHOMA	.	.	.	.	.	.	.	1	.	.	.	1	1	.	1	4
OREGON	5	1	.	.	9	1	.	1	2	.	.	.	.	.	.	19
PENNSYLVANIA	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1
RHODE ISLAND	2	1	4	10	2	1	12	63	1	.	.	.	.	.	.	96
SOUTH CAROLINA	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1
SOUTH DAKOTA	.	.	.	.	.	7	3	.	.	.	.	.	.	.	.	10
TENNESSEE	.	.	1	.	.	.	.	.	.	.	1	1	.	.	.	3
TEXAS	.	1	2	1	.	.	1	1	1	.	.	1	.	.	15	23	
UTAH	8	6	6	3	10	7	13	82	.	.	2	1	.	.	.	138	
VERMONT	2	.	.	1	10	.	7	.	2	.	.	.	.	.	.	22
VIRGINIA	.	.	.	.	.	.	.	.	1	1	.	1	.	1	.	4
WASHINGTON	1	.	2	.	.	.	.	.	.	10	2	1	.	.	.	16

(Continued)

TABLE 10E

NUMBER OF REPORTED SHIGELLA ISOLATES WITH UNKNOWN SEROGROUP FOR 1984-1998

STATE	YEAR													TOTAL		
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996		1997	1998
WEST VIRGINIA	4	4	8	5	4	10	2	8	3	12	.	.	.	.	.	60
WISCONSIN	.	.	69	61	49	34	39	30	82	52	.	.	.	.	.	416
TOTAL	608	701	909	1134	2287	1366	1580	1602	1217	1785	2935	1181	727	602	596	19230