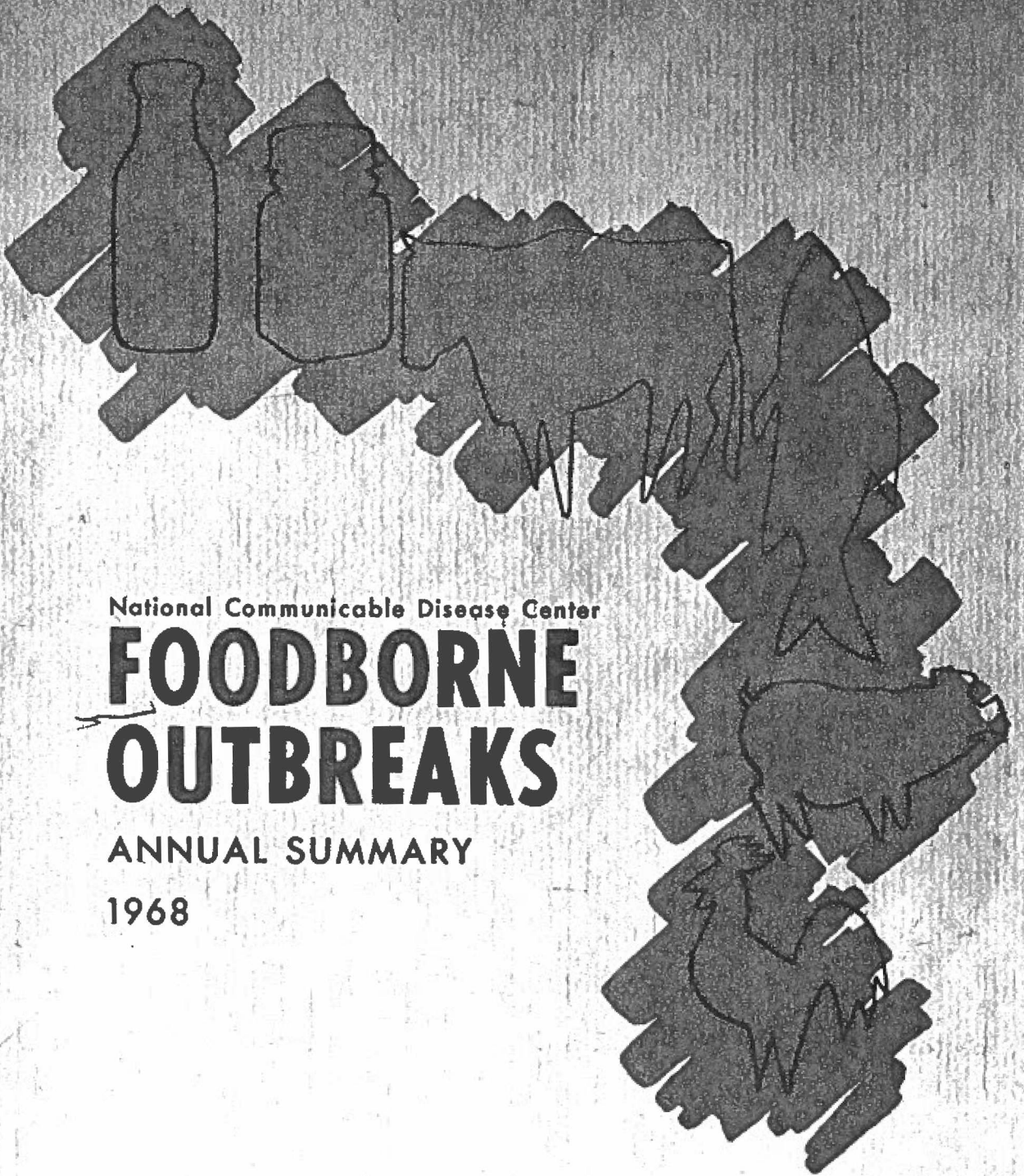




National Communicable Disease Center

FOODBORNE OUTBREAKS

ANNUAL SUMMARY

1968

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

PREFACE

Summarized in this report is information received from state and city health departments, Food and Drug Administration, and other pertinent sources. Much of the information is preliminary. It is intended primarily for the use of those with responsibility for disease control activities. Anyone desiring to quote this report should contact the Enteric Diseases Section for confirmation and interpretation.

Contributions to the Status Report are most welcome. Please address to the

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Key to all disease surveillance activities are the physicians who serve as State epidemiologists. They are responsible for collecting, interpreting, and transmitting data and epidemiological information from their individual States; their contributions to this report are gratefully acknowledged. In addition, valuable contributions are made by State Laboratory Directors; we are indebted to them for their valuable support.

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SECTION A. FOODBORNE OUTBREAKS

The annual summary of foodborne disease outbreaks in the United States is based upon our analysis of data compiled from various sources. This report complements and summarizes data included in the previous report, "Foodborne Outbreaks Status Report - January - June 1968." In addition, tabular comparisons of the 1967 annual data are presented. As defined in this report, foodborne disease is synonymous with food poisoning and is defined as disease caused by ingestion of a pathogenic organism or noxious agent contained in a water or a food vehicle.

As is readily apparent from the line listing of outbreaks, there is considerable variation in the completeness and depth of reports. In 46 percent of the outbreaks, the etiology was not specified or was unconfirmed. Some health authorities are thorough in reporting; others do not report at all. The data are therefore, not representative. Consequently, in our judgment, it is difficult to draw definitive conclusions about patterns of foodborne illnesses from these data. Nevertheless, the predominance of certain etiologies over others and various trends within these etiologies are discernable.

Food poisoning in the United States is grossly under reported. In England and Wales, where food poisoning surveillance has been well developed, 3,744 incidents of food poisoning were recorded in 1966, whereas only 181 incidents of food poisoning were reported to NCDC for the same period. The estimated number of episodes for the United States proportionate to the population in England and Wales is over 15,000. This figure serves to emphasize the probable scope of involvement of food poisoning in this country and the gross discrepancy between the expected and actual number of foodborne disease incidents reported.

This report also stresses the need to improve the quality and quantity of primary data so that it can be more useful to all interested persons. To accomplish this, standardization of reported data pertinent to each foodborne outbreak is necessary. Accordingly, a copy of a newly revised form for summarizing outbreaks is included in this report (Section C). This form is intended to serve as a check list of relevant parameters which describe and define an outbreak; it also serves as a means by which precise data can be tersely recorded and forwarded to NCDC for subsequent analysis.

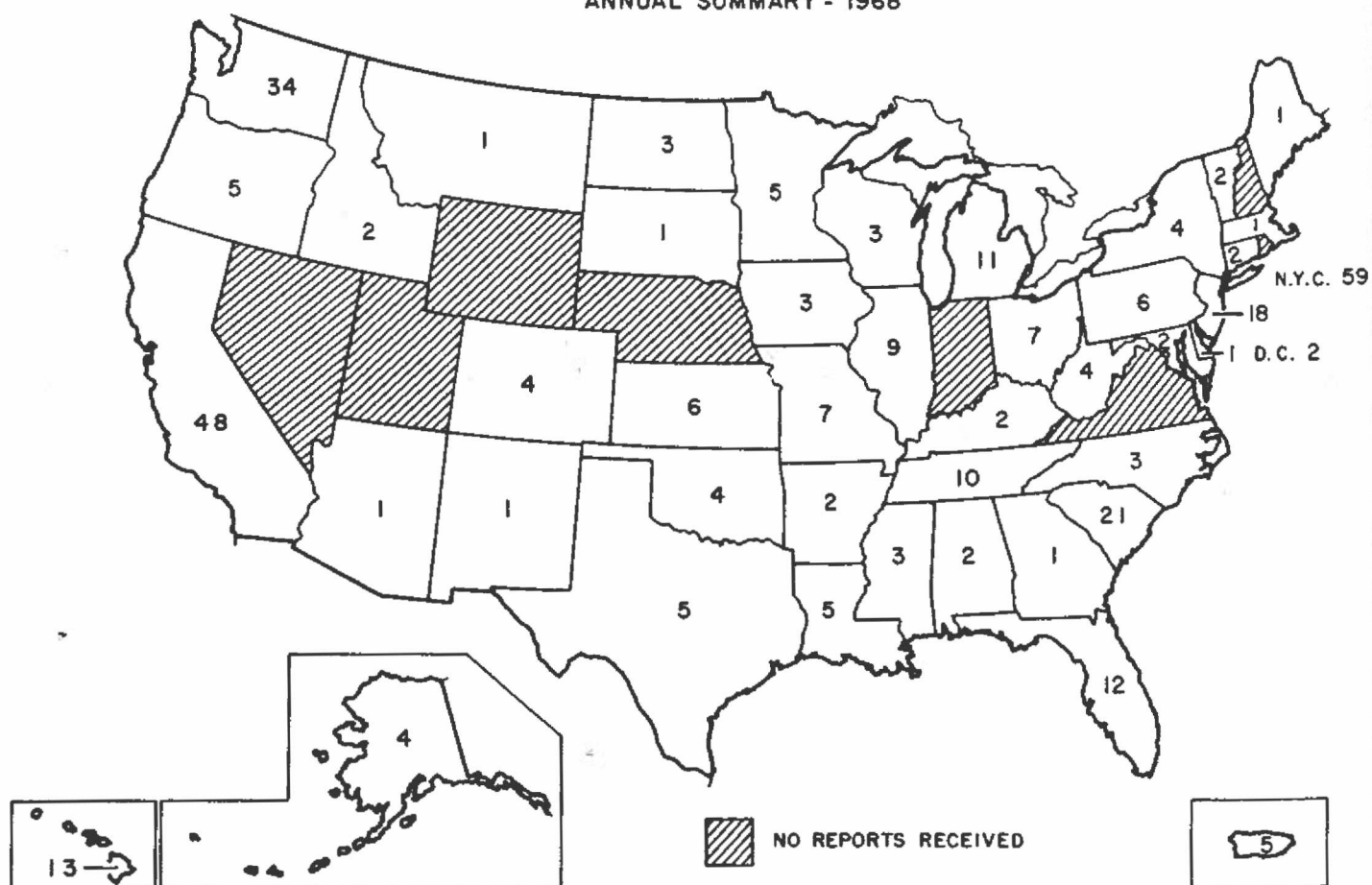
In this report a distinction has been made between confirmed and unconfirmed outbreaks. Confirmation in almost all instances refers to laboratory support of epidemiologic evidence -- a major exception being infectious hepatitis. Unconfirmed outbreaks refer to those outbreaks in which epidemiologic evidence is not supported by laboratory data.

For each outbreak in which more than one number was reported for the number ill or exposed, the lowest number was always used. The total numbers in the report thus represent minimal numbers.

Episodes of food poisoning reported as individual cases have not been included in the tabulation of data -- except for botulism. These cases, however, have been line-listed separately in Section F. Similarly, reports of outbreaks which occurred in 1968 but which were received after the compilation of data, have been line-listed at the end of Section E. These also have not been included in the tabulation.

The following map (Figure 1) shows the geographic distribution of outbreaks in the United States during 1968. Utilizing all sources of information, there were no reports of outbreaks in eight states during this period. In 1967, nine states reported no outbreaks.

Figure 1
NUMBER OF OUTBREAKS* OF FOODBORNE ILLNESS BY STATE
ANNUAL SUMMARY - 1968



* UTILIZING ALL SOURCES OF INFORMATION

Table 1 presents the outbreaks and number of cases for each category of food poisoning. In this table cases of suspected etiology are included under the heading "unknown." Bacterial etiology accounted for 45 percent of the outbreaks and 69 percent of cases of foodborne illness. In all, more than 17,500 individuals suffered from food poisoning during the year.

Table 2 lists the sources which initially reported outbreaks to NCDC. The category, "Department of Health," includes monthly reports of EIS Officers located at state and local health departments. Of the 345 outbreaks recorded for 1968, 301 (87%) emanated from state or local health departments.

Table 3 indicates the number of outbreaks reported directly by state and local health departments for 1967 and 1968. New York City accounted for 19 percent, California for 14 percent, and Washington for 11 percent of the reports from this source. In 1968, 11 state health departments did not report -- compared to 13 in 1967.

Table 4-A records the number of confirmed, unconfirmed, and total outbreaks and cases by etiology and the percentage of confirmed and unconfirmed outbreaks and cases. Table 4-B compares 1967 and 1968 data. In 1968, staphylococcal food poisoning was the most common type reported and accounted for nearly one-fourth of all outbreaks and one-fourth of all patients. In 1967, staphylococcus accounted for approximately one-fourth of the outbreaks, but only 9 percent of total cases. Clostridium perfringens food poisoning was the second most commonly reported etiology representing 16 percent of total outbreaks and 34 percent of all patients. In 1967, the respective figures were 14 percent and 16 percent. Salmonella was in third place causing 12 percent of reported outbreaks and 7 percent of cases.

Table 5 lists the mean and range of the number of persons involved in all of the confirmed and unconfirmed outbreaks for 1967 and 1968. In general, outbreaks of C. perfringens and E. coli involved large numbers of individuals in both 1967 and 1968, and staphylococcus involved small groups of people both years. Interestingly, the number of people involved in outbreaks of salmonellosis in 1968 decreased markedly from the 1967 figure. This is due, however, to several large outbreaks of salmonellosis in 1967.

Table 6 lists the attack rates by specific etiology. In the confirmed outbreaks, attack rates were exceedingly high ($\geq 80\%$) for E. coli and chemical food poisoning, moderately high ($> 20\%$) for C. perfringens, salmonella, shigella, staphylococcal, and streptococcal food poisoning, and low ($< 10\%$) for hepatitis food poisoning.

Table 7 categorizes the total of confirmed and unconfirmed outbreaks by the number of cases reported and by etiology. It is apparent, for instance, that staphylococcal food poisoning involved smaller groups of people than C. perfringens food poisoning. In 1968, 71 percent of outbreaks involved less than 30 individuals while in 1967, only 58 percent of the outbreaks affected groups of 30 or less. In 1968, there was only one outbreak affecting a group of more than 1,000 people; in 1967, there were two.

Table 8 lists the vehicles of infection by specific etiology. The three most commonly incriminated vehicles in decreasing order of frequency were beef, pork, and turkey. This is consistent with the 1967 results.

Figure 2 is a graph depicting the progressive decrease of milk and waterborne outbreaks with respect to the total number of outbreaks. Perhaps this underscores the existence of tighter control measures insuring the wholesomeness of both water, which is usually chlorinated, and milk, which is usually pasteurized.

Table 9 delineates the various places where improper food handling occurred which allowed the reported outbreaks to materialize. The heading, "food processing establishments," refers to the place or site of improper food handling in preparation for marketing. The heading, "food service establishments," refers to the place or site of improper food handling occurring during food processing in a commercial establishment for public consumption in contradistinction to the heading, "homes," which refers to mishandled food in the home itself. The column, "unknown-unspecified," includes those outbreaks reported with insufficient information which precluded specific classification. The vehicles in the etiologic category "unknown" were omitted from this table. Over 43 percent of the vehicles were improperly handled during processing in a commercial eating place, while 6 percent were improperly handled in preparation for marketing. The homemaker was culpable about 9 percent of the time. Unfortunately, the site of improper food handling could not be determined approximately 40 percent of the time. No data are available for comparison with 1967.

Table 10 lists the place at which the suspect food was ingested according to specific etiology. It is apparent that the majority of foodborne outbreaks (60%) occurred in homes and restaurants; however, this represented only 28 percent of the total people ill. While food poisoning in schools accounted for 13 percent of the outbreaks, nearly 40 percent of all persons affected were school children. Illness due to brucella, C. botulinum, and Trichinella spiralis, tended to be caused by foods eaten at home, that due to C. perfringens and S. aureus by foods served in public facilities.

Table 11 lists the monthly incidence of all outbreaks by specific etiology. An outbreak is assigned to a particular month according to the date of onset of the first case. Although the total monthly incidence of food poisoning appears to be rather uniform, a rise in staphylococcal food poisoning was noted during the warmer months.

In this report several tables are presented depicting comparable data for the past two years. These data differ from those recorded in the 1967 annual report. In that report incidents of food poisoning -- i.e., individual case reports of food poisoning -- were included in the tabular data. Since the legitimacy of such "outbreaks" are difficult to validate, their contribution to the tables have been extracted and the latter have been amended to allow a strict comparison with the 1968 data.

TABLE I
Etiology of foodborne illness reported to NCDC from all sources
Annual Summary - 1968

	Outbreaks		Cases	
	#	%	#	%
<u>BACTERIAL</u>	156	45.2	12,180	69.3
Brucella	3	.9	10	.1
C. botulinum	3	.9	4	-
C. perfringens	40	11.6	4,878	27.8
E. coli	1	.3	360	2.0
Salmonella	40	11.6	1,280	7.3
Shigella	6	1.7	407	2.3
Staphylococcus	51	14.8	3,994	22.7
Streptococcus	12	3.5	1,247	7.1
<u>PARASITIC</u>				
Trichinella spiralis	8	2.3	80	.5
<u>VIRAL</u>				
Hepatitis	6	1.7	238	1.4
<u>CHEMICAL</u>	13	3.8	81	.5
Miscellaneous	2	.6	71	.4
<u>Unknown *</u>	160	46.4	4,917	28.0
Total	345	100.00	17,567	100.00

*Includes all outbreaks due to unknown and unconfirmed etiology.

TABLE 2

Initial reporting source of foodborne illness
Annual Summary - 1968

<u>Number of reports</u>	<u>Reporters</u>
301	DH - Department of health, state or local; includes reports of EIS Officers located at state and local health departments.
11	FDA - Food and Drug Administration
6	Salm. - Salmonellosis Unit including Salmonella Surveillance Report, Epidemiology Program, NCDC.
6	AF - Armed Forces installation and U.S. Public Health Service, Bureau of Indian Affairs.
2	Ind. - Direct report from individual.
4	Bruc. - Brucellosis Surveillance Activity, Veterinary Public Health Section, Epidemiology Program, NCDC.
5	Para. - Parasitology Unit, Epidemiology Program, NCDC.
8	MMWR - Morbidity and Mortality Weekly Report, NCDC.
2	ECA - Environmental Control Administration *
345	Total

*Division, Food, Milk, and Interstate Travel Sanitation,
Bureau of Community Environmental Management - performs functions
previously handled by the National Center for Urban and Industrial Health.

TABLE 3

Outbreaks of foodborne illness reported by
state and local health departments
1967 - 1968

	<u>1967</u>	<u>1968</u>		<u>1967</u>	<u>1968</u>
Alabama	1	0	Missouri	1	3
Alaska	2	4	Montana	0	1
Arizona	0	1	Nebraska	1	0
Arkansas	6	2	Nevada	1	0
California	21	43	New Hampshire	0	0
Colorado	1	3	New Jersey	8	18
Connecticut	1	2	New Mexico	2	1
Delaware	0	1	New York City	47	56
District of Columbia	1	0	New York State	5	2
Florida	3	12	North Carolina	0	2
Georgia	0	1	North Dakota	0	1
Hawaii	3	12	Ohio	3	6
Idaho	1	2	Oklahoma	1	3
Illinois	6	9	Oregon	5	5
Indiana	2	0	Pennsylvania	7	5
Iowa	0	2	Puerto Rico	0	5
Kansas	2	2	Rhode Island	1	0
Kentucky	2	1	South Carolina	1	21
Louisiana	4	3	South Dakota	0	1
Maine	3	1	Tennessee	0	9
Maryland	2	2	Texas	1	2
Massachusetts	0	0	Utah	2	0
Michigan	3	10	Vermont	1	1
Minnesota	3	5	Virginia	1	0
Mississippi	1	2	Washington	9	33
			West Virginia	2	4
			Wisconsin	0	2
			Wyoming	0	0
Subtotal	68	120	Subtotal	99	181

1967 Total - 167

1968 Total - 301

TABLE 4-A

Division by specific etiology of confirmed and unconfirmed outbreaks of foodborne illness
Annual Summary - 1968

	Outbreaks						Patients					
	Confirmed		Unconfirmed		Total		Confirmed		Unconfirmed		Total	
	#	%*	#	%*	#	%*	#	%*	#	%*	#	%*
<u>BACTERIAL</u>	156	84.3	64	85.3	220	84.6	12,180	96.3	2,437	98.4	14,617	96.6
Brucella	3	1.6	1	1.3	4	1.5	10	.1	2	.1	12	.1
C. botulinum	3	1.6	6	8.0	9	3.5	4	0	6	.2	10	.1
C. perfringens	40	21.6	16	21.3	56	21.5	4,878	38.6	1,088	43.9	5,966	39.4
E. coli	1	0.5	5	6.7	6	2.3	360	2.8	874	35.3	1,234	8.2
Salmonella	40	21.6	2	2.7	42	16.2	1,280	10.1	7	.3	1,287	8.5
Shigella	6	3.2	0	0	6	2.3	407	3.2	0	0	407	2.7
Staphylococcus	51	27.6	31	41.3	82	31.5	3,994	31.6	425	17.2	4,419	29.2
Streptococcus	12	6.5	3	4.0	15	5.8	1,247	9.9	35	1.4	1,282	8.5
<u>PARASITIC</u>												
Trichinella spiralis	8	4.3	1	1.3	9	3.5	80	.6	2	.1	82	.5
<u>VIRAL</u>												
Hepatitis	6	3.2	0	0	6	2.3	238	1.9	0	0	238	1.6
<u>CHEMICAL</u>	13	7.0	9	12.0	22	8.5	81	.6	32	1.3	113	.7
<u>Miscellaneous</u>	2	1.1	1	1.3	3	1.2	71	.6	5	.2	76	.5
Unknown			85		85				2,441		2,441	
Total	185	100.0	75	100.0	260	100.0	12,650	100.0	2,476	100.0	15,126	100.0

*Unknown etiology excluded

TABLE 4-B

Division by specific etiology of the total of confirmed and unconfirmed outbreaks of foodborne illness - 1967-1968

	1967			1968		
	#	Total Outbreaks	%	#	Total Patients	%
<u>BACTERIAL</u>	140	68.6		19,757	89.4	
Brucella	1	.5		2	0	
<u>C. botulinum</u>	3	1.5		6	0	
<u>C. perfringens</u>	28	13.7		3,492	15.8	
<u>E. coli</u>	5	2.5		819	3.7	
Salmonella	39	19.1		12,889	58.3	
Shigella	6	2.9		586	2.7	
Staphylococcus	53	26.0		1,912	8.7	
Streptococcus	5	2.5		51	.2	
<u>PARASITIC</u>						
<u>Trichinella spiralis</u>	3	1.5		8	0	
<u>VIRAL</u>						
Hepatitis	9	4.4		196	.9	
<u>CHEMICAL</u>	6	2.9		32	.1	
<u>Miscellaneous</u>	6	2.9		231	1.0	
Unknown	40	19.6		1,878	8.5	
Total	204	100.0		22,102	100.0	

TABLE 5

Size (number of people) of outbreaks of
foodborne illness of specific etiology - 1967-1968

	<u>1967</u>		<u>1968</u>	
	<u>Mean</u>	<u>Range</u>	<u>Mean</u>	<u>Range</u>
<u>BACTERIAL</u>				
Brucella	2	-	3	2-5
<u>C. botulinum</u>	2	1-3	1	1-2
<u>C. perfringens</u>	125	2-495	107	2-560
<u>E. coli</u>	164	14-700	206	3-477
Salmonella	330	2-9,000	31	2-400
Shigella	98	39-220	68	3-195
Staphylococcus	36	2-401	54	2-1,364
Streptococcus	10	5-23	85	3-600
<u>PARASITIC</u>				
<u>Trichinella spiralis</u>	3	2-3	9	2-47
<u>VIRAL</u>				
Hepatitis	22	3-68	40	5-76
<u>CHEMICAL</u>	5	3-12	5	2-17
<u>Miscellaneous</u>	38	3-177	25	5-66
Unknown	47	3-300	29	2-575
Total	108	1-9,000	51	1-1,364

TABLE 6

Attack rates of foodborne illness
(number ill/number exposed)
Annual Summary - 1968

	<u>Confirmed</u>	<u>Unconfirmed</u>	<u>Total</u>
<u>BACTERIAL</u>			
Brucella	-	-	-
<u>C. botulinum</u>	-	-	-
<u>C. perfringens</u>	31.3	53.8	33.9
<u>E. coli</u>	80.0	26.2	38.6
Salmonella	26.4	-	26.4
Shigella	38.2	-	38.2
Staphylococcus	20.4	33.8	18.0
Streptococcus	27.9	24.1	27.8
<u>PARASITIC</u>			
<u>Trichinella</u> <u>spiralis</u>	39.2	-	39.2
<u>VIRAL</u>			
Hepatitis	8.4	-	8.4
<u>CHEMICAL</u>	90.4	55.2	70.0
<u>Miscellaneous</u>	-	-	-
<u>Unknown</u>	-	-	31.0
Total	25.8	38.6	27.0

Blank spaces indicate insufficient data to calculate attack rates.

TABLE 7

Division of foodborne illness of specific etiology into outbreaks of specific size*
 Annual Summary 1968
 Selected comparative data 1967

	Size of outbreak							
	<u>1-3</u>	<u>4-10</u>	<u>11-30</u>	<u>31-100</u>	<u>101-300</u>	<u>301-1000</u>	<u>1000+</u>	<u>Unknown</u>
<u>BACTERIAL</u>								
Brucella	3	1						
<u>C. botulinum</u>	9							
<u>C. perfringens</u>	5	11	10	6	20	4		
<u>E. coli</u>	1	2				3		
Salmonella	11	8	12	9	1	1		
Shigella	1		2	2	1			
Staphylococcus	24	24	12	11	9	1	1	
Streptococcus	3	5	4		1	2		
<u>PARASITIC</u>								
<u>Trichinella spiralis</u>	3	5		1				
<u>VIRAL</u>								
Hepatitis		1	1	4				
<u>CHEMICAL</u>	8	12	2					
<u>Miscellaneous</u>		2		1				
Unknown**	23	26	18	12	4	1		
Total 1968	91	97	61	46	36	12	1	
Total 1967	41	43	34	45	24	8	2	7

* Number of people

**Number ill unknown for one outbreak

TABLE 8

Vehicles associated with foodborne illness of specific etiology¹
 Annual Summary 1968
 Selected comparative data 1967

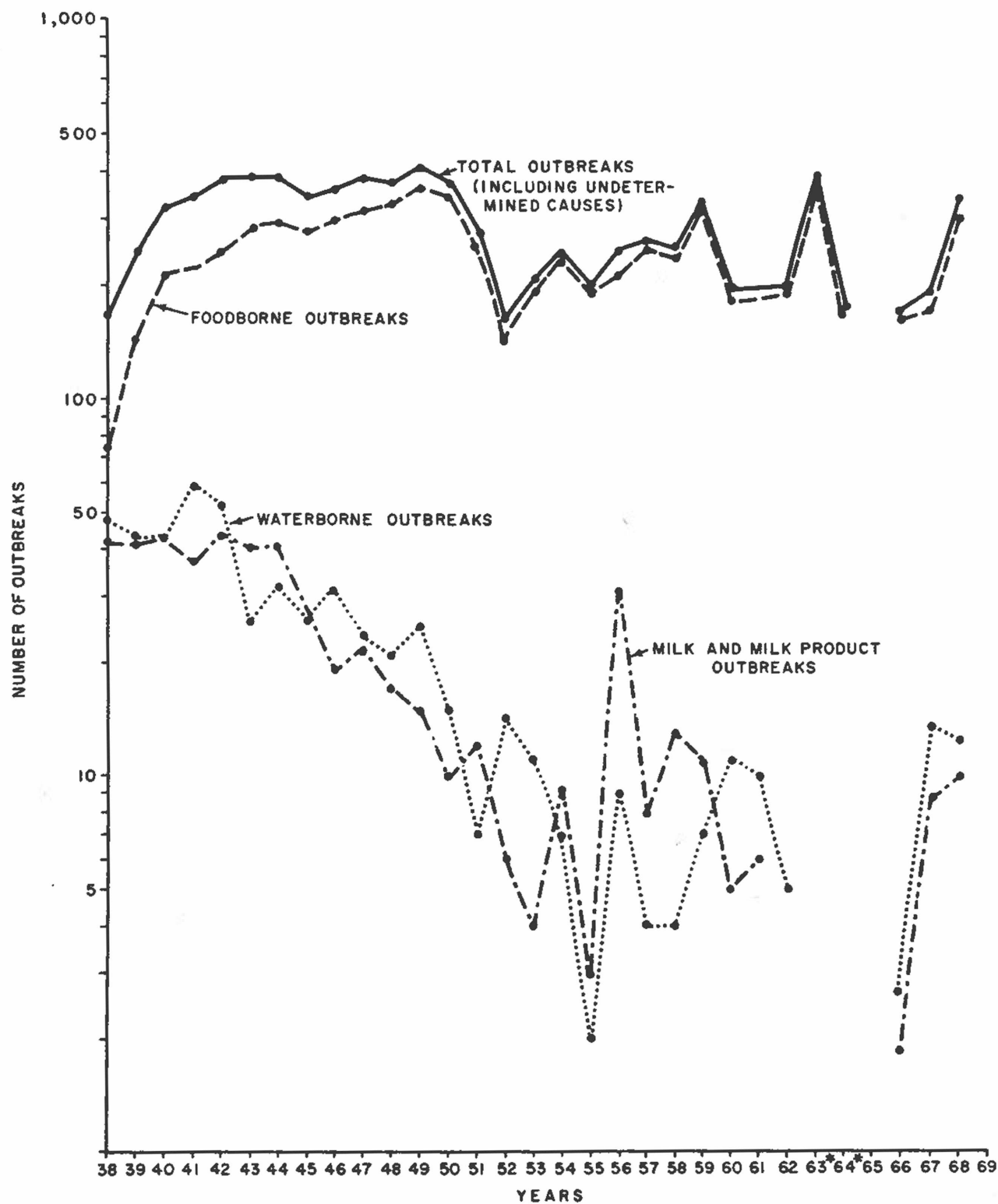
	Turkey*	Chicken*	Egg	Milk	Beef*	Pork	Other meat	Vegetable and fruit	Shellfish	Other fish	Water	Other	Unknown
<u>BACTERIAL</u>													
Brucella				4									
C. botulinum		2			1		1	2		1			2
C. perfringens ²	17	6			24	2	1	3	1	3		2	2
E. coli			1				1				3	1	
Salmonella ³	10	2	4		4	4	1	6	1		2	4	6
Shigella ⁵		2						2					3
Staphylococcus ⁴	8	6	3	4	13	24	2	9	4	3		8	6
Streptococcus ³	1		3		4	3	1	3	1				1
<u>PARASITIC</u>													
Trichinella spiralis					1	7	1						
<u>VIRAL</u>													
Hepatitis				1							4	1	
<u>CHEMICAL</u> ⁵		2	1		2	1		3		3	2	9	
<u>Miscellaneous</u>				1	1	1							
Unknown ⁶	7	6	4	1	15	10	2	7	5	4	2	3	23
Total 1968	43	26	16	11	65	52	10	35	12	14	13	28	43
Total 1967	16	7	5	9	35	13	14	11	9	10	15	29	43

1. Includes suspected as well as proven vehicles
2. 5 outbreaks with 2 vehicles
3. 2 outbreaks with 2 vehicles
4. 6 outbreaks with 2 vehicles and 1 outbreak with 3 vehicles
5. 1 outbreak with 2 vehicles
6. 4 outbreaks with 2 vehicles

* Includes some outbreaks due to meat and/or gravy and/or dressing.

Figure 2

RELATIVE IMPORTANCE OF FOODBORNE vs MILK- AND WATER-BORNE DISEASE OUTBREAKS IN THE UNITED STATES, 1938-1968



* DATA INCOMPLETE

TABLE 9

Place where food was mishandled in foodborne
outbreaks reported by specific etiology
Annual Summary - 1968

	<u>Food processing establishments</u>	<u>Food service establishments</u>	<u>Homes</u>	<u>Unknown - Unspecified</u>
<u>BACTERIAL</u>				
Brucella		1	3	
<u>C. botulinum</u>	2*		3	4
<u>C. perfringens</u>	2	18	2	34
<u>E. coli</u>	1	3	1	1
Salmonella	3	16	4	19
Shigella		3		3
Staphylococcus	1	43	3	35
Streptococcus		13		2
<u>PARASITIC</u>				
<u>Trichinella spiralis</u>	5	1	3	
<u>VIRAL</u>				
Hepatitis	1	2	2	1
<u>CHEMICAL</u>	1	12	2	7
<u>Miscellaneous</u>		2	1	
Total	16	114	24	106

* 1 vehicle suspected, not proven

TABLE 10

Places of acquisition of foodborne
illness of specific etiology
Annual Summary 1968
Selected comparative data 1967

	Home	Restaurant	Banquet	School	Store	Medical Institution	Other	Unknown	Total
<u>BACTERIAL</u>									
Brucella	3	1							4
<u>C. botulinum</u>	7	1	1						9
<u>C. perfringens</u>	6	23	8	14	1	1	2	1	56
<u>E. coli</u>	1	2	1				2		6
Salmonella	15	12	6	1	2	1	5		42
Shigella	1	1	1	1		1	1		6
Staphylococcus	17	27	10	10	10	2	6		82
Streptococcus	6	3		2	3		1		15
<u>PARASITIC</u>									
<u>Trichinella spiralis</u>	9								9
<u>VIRAL</u>									
Hepatitis				3	2		1		6
<u>CHEMICAL</u>	10	8			2		2		22
<u>Miscellaneous</u>	2						1		3
Unknown	<u>19</u>	<u>37</u>	<u>8</u>	<u>13</u>	<u>3</u>	<u>2</u>	<u>3</u>	<u>—</u>	<u>85</u>
Total outbreaks 1968	96	115	35	44	23	7	24	1	345
Number of persons ill 1968	1,720	3,165	2,768	6,959	343	440	2,168	4	17,567
Total outbreaks 1967	45	57	25	35	10	5	21	6	204
Number of persons ill 1967	274	1,374	11,373	4,129	282	335	4,018	317	22,102

TABLE 11

Monthly occurrence of outbreaks of foodborne illness of specific etiology
Annual Summary 1968
Selected comparative data 1967

	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>Jun.</u>	<u>Jul.</u>	<u>Aug.</u>	<u>Sep.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Total</u>
<u>BACTERIAL</u>													
Brucella	1			1	1				1				4
<u>C. botulinum</u>		1		1	2	1	1	1		2			9
<u>C. perfringens</u>	2	7	6	4	5	7	4	1	4	6	8	2	56
<u>E. coli</u>		1	1		3		1						6
Salmonella	3	3	3	2	4	9	3	3	2	3	6	1	42
Shigella			1	2			1	1	1				6
Staphylococcus	4	5	7	3	11	10	5	12	8	9	7	1	82
Streptococcus		1	1	4	1	1	4	-	-	1	1	1	15
<u>PARASITIC</u>													
<u>Trichinella spiralis</u>			1	1	3		-	1	1	-	-	2	9
<u>VIRAL</u>													
Hepatitis	1				2		1	1	1	-	-	-	6
<u>CHEMICAL</u>	3	2	2	1		3	1	1	4	3	1	1	22
Miscellaneous				1			1	-	-	1	-	-	3
Unknown	8	6	9	6	5	8	5	7	5	14	6	6	85
Total 1968	22	26	31	26	37	39	27	28	27	39	29	14	345
Total 1967 *	4	11	9	18	18	16	16	23	23	24	27	11	204

*Four outbreaks - dates unknown

Section D - Line Listing of Foodborne Outbreaks

Explanation of line listing:

Listing is by specific etiology. Under each etiology confirmed outbreaks are listed first in chronological order. Unconfirmed outbreaks are listed next in chronological order.

For all instances in which there was any question as to the accuracy of information, a question mark is included.

Onset - the month is followed by the day of the month. In some outbreaks involving continual exposure over a period of time, the onset is expressed as a range between onset of the first and last case.

Lab data - usually refers to cultural confirmation.

P - patient
V - vehicle
H - food handler

Symptoms:

N - nausea	F - fever
V - vomiting	H - headache
C - cramps, abdominal pain	A - anorexia
D - diarrhea	O - other

Reporter - see Table 2 for explanation of abbreviations.

Other symbols and abbreviations:

$\bar{x}$ - mean
med. - median
~ - approximately

Explanation of code letters in parentheses - (A), (B), (C), (D) - in line listing under column headed "Comment." These letters refer to data presented in Table 9.

- (A) "Food processing establishments" - Site or place of food improperly handled in preparation for marketing.
- (B) "Food service establishments" - Site or place of food improperly handled during food processing in a commercial establishment for public consumption.
- (C) "Homes" - food mishandled in homes.
- (D) "Unknown - Unspecified" - Information lacking, precluding classification.

ANNUAL SUMMARY

Line listing of foodborne outbreaks reported to the National Communicable Disease Center during 1968*
 (*This line listing excludes those reports previously listed in the Foodborne Outbreak Status Report - January-June 1968)

ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	LAB DATA			CLINICAL DATA			REPORTER	COMMENT
				P.	V.	H.	# ill (at risk)	incub. period (hrs.)	Duration of dis. (hrs.)		
									Symptoms		
<u>BACTERIAL</u>											
<u>BRUCELLA</u>											
Brucella	1-?	California	unpast. milk	+	-	-	2			Bruc.	raw cow & goat milk in Italy (C)
Brucella	4-15	North Dakota	unpast. milk	+	-	-	3			Bruc.	raw milk (C)
Brucella	9-23	California	cheese	+	-	-	5		N,V,F,chills, weakness	Bruc.	cheese in Mexico (B)
<u>CLOSTRIDIUM BOTULINUM</u>											
<u>C. botulinum</u> type B	7-22	St. Joseph, Mich.	chicken & chicken soup	+			2(2)	~ 4 dy.	1 death	FDA	Home (C)
<u>C. botulinum</u> type A	10-17	Los Angeles, Calif.	chopped chicken liver	+			1	3-5 dy.	death	DH	home (A)
Prob. botulism	6-11	Muskegon, Mich.	rare hamburger				1(2)	24 hr.	recovery	DH	home (D)
Prob. botulism	8-29	Orange County, Calif.	home-preserved fruit				1	24 hr.	recovery	DH	restaurant (D)
Prob. botulism	10-27	Huntington, Tenn.					1		recovery	DH	home (D)
<u>CLOSTRIDIUM PERFRINGENS</u>											
<u>C. perfringens</u>	1-?	Richland, S.C.	hamburger	+			4(15)			DH	(D)
<u>C. perfringens</u>	2-8	Ann Arbor, Mich.	beef	+			194(500)	7-26 hr. med. 18 hr.	N,C,D, chills	DH	school (D)
<u>C. perfringens</u>	2-?	Sumter, S. C.	chicken stew	+			130(650)	13 hr.	N,C,D	DH	school (D)
<u>C. perfringens</u>	3-31	Hawaii		+			89(170)	13.8	1-2 dy. II,N,C,D,F	DH	commercial luau (D)

<u>C. perfringens</u>	7-8	Towtowa, N.J.	lamb	+	+
<u>C. perfringens</u> hobbs type 1	7-18	Chester, Conn.	meat loaf	+	+
<u>C. perfringens</u> hobbs type 10	7-26	Hawaii	chicken gravy	+	
<u>C. perfringens</u>	7-31	Tracy, Calif.	beef enchiladas		+
<u>C. perfringens</u>	9-14	New York City	roast beef		+
<u>C. perfringens</u> PS 38, PS 80	9-25	Mendenhall, Miss.	turkey		+
<u>C. perfringens</u>	9-20	New York City	roast beef, ham, corned beef, pastrami		+
<u>C. perfringens</u> type PS 17	10-6	Greenville, Tenn.	tuna salad	+	
<u>C. perfringens</u>	10-9	Lackland, Tex.	mushroom sauce	+	+
<u>C. perfringens</u> hobbs type 13 and PS 30	10-16	Whitley City, Ky.	turkey	+	
<u>C. perfringens</u>	10-16	Seattle, Wash.	roast beef	+	+
<u>C. perfringens</u>	11-12	Fort Sill, Okla.	pork	+	
<u>C. perfringens</u>	11-17	Worden, Wash.	beef tongue	+	+
<u>C. perfringens</u>	11-26	New York City	pot roast		+
<u>C. perfringens</u>	11-27	W. Palm Beach, Fla.	turkey		+
<u>C. perfringens</u>	11-28	Hickory, N.C.	turkey and/or gravy		+

148(260)	3-16 hr.		D	DH	school (B)
2			D	DH	camp (D)
6(7)	9-15 hr.	1-2 dy.	N,C,D	DH	restaurant (D)
29 (1,400)	2-13 hr.	2-5 hr.	C,D,N,	DH	vocational institution (B)
560 (1,800)	2-26 hr. & 15 hr.	12-24 hr.	C,D,N,V,F	DH	banquet (B)
191 (273)	18-22 hr. $\bar{x}$ 20 hr.	$\bar{x}$ 6 hr.	C,D	DH	school (D)
7	7-24 hr.	4-27 hr.	C,D	DH	restaurant (B)
160 (212)	9-48 hr.		N,V,D,F,C,H	DH	school (D)
400 (900)	8 hr	24 hr.	C,D,N	AF	military base (B)
141 (613)	$\bar{x}$ 11 hr.		C,D,V,F	DH	school (B)
8(60)	2-18½ hr. $\bar{x}$ 12 hr.	$\bar{x}$ 6 hr.	N,D,C,H	DH	restaurant (D)
124 (~ 500)	9-12 hr.	36 hr.	D,C	AF	cafeteria (D)
15 (25)	11-13 hr.	12 hr.	D,C,N,H	DH	home (D)
10 (500)	$\bar{x}$ 14 hr.	$\bar{x}$ 30 hr.	D,N,V,C	DH	restaurant (B)
6	8 hr.	24 hr.	D, weakness, prostration	DH	restaurant (B)
218 (448)	7-15 hr. & 9 hr.	$\bar{x}$ 18 hr.	N,V,D	DH	caterer (D)

ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	LAB DATA		
				P.	V.	H.
<u>C. perfringens</u>	11-7	York, S.C.	hash		+	
<u>C. perfringens</u>	12-9	Davidson County, Tenn.	beef	+		+
<u>C. perfringens</u>	12-18	Pauls Valley, Okla.	turkey & dressing			
Prob. <u>C. perfringens</u>	4-18	Seattle, Wash.	roast beef and/or gravy	+		
Prob. <u>C. perfringens</u>	5-13	Flemington, N.J.	turkey gravy			
Prob. <u>C. perfringens</u>	6-8	Long Beach, Calif.	mushroom- meat gravy			
Prob. <u>C. perfringens</u>	6-17	Chesilhurst, N.J.	turkey gravy			
Prob. <u>C. perfringens</u>	6-23	Tacoma, Wash.	meat loaf and/or gravy	+		
Prob. <u>C. perfringens</u>	6-24	Seattle, Wash.	chinese food	+		
Prob. <u>C. perfringens</u>	8-21	Edmond, Okla.	roast beef hash			
? <u>C. perfringens</u>	9-9	Seattle, Wash.	clam chowder			
? <u>C. perfringens</u>	10-2	Seattle, Wash.	fish balls			
? <u>C. perfringens</u>	10-9	Bloomington, Minn.	chicken base gravy	+		
? <u>C. perfringens</u>	11-26	New York City	?roast beef			

# ill (at risk)	CLINICAL DATA			REPORTER	COMMENT
	incub. period (hrs.)	Duration of dis. (hrs.)	Symptoms		
15	18 hr.		C,D	DH	church group (D)
108 (230)	6-14 hr.	6-12 hr.	C,D,N	DH	restaurant (D)
22 (25)	$\bar{x}$ 13 hr.	$\bar{x}$ 22 hr.	C,D,N,V	DH	restaurant (D)
2	12-14 hr.	<24 hr.	N,V,C,D	DH	restaurant (D)
~ 200	$\bar{x}$ 14 hr.	$\bar{x}$ 10 hr.	D,C,N	DH	restaurant (B)
151 (371)	2.5-20.5 hr. $\bar{x}$ 12.5	$\bar{x}$ 5-10	D,C,N,H	DH	restaurant (D)
16 (21)	med. 12 hr.	med. 18 hr.	C,D	DH	restaurant (D)
8 (9)	12-13½ hr. $\bar{x}$ 12 hr.	12 hr.	N,C,D	DH	restaurant (D)
3	10½-11½ hr.		C,D	DH	restaurant (D)
25 (93)	7-23 hr. $\bar{x}$ 10-12 hr.	15 hr.	D,C,N,V	DH	school (D)
2	$\bar{x}$ 13 hr.	12-24 hr.	C,D,V	DH	restaurant (B)
15 (20)	9½-19½ hr. $\bar{x}$ 11½ hr.	med. 12 hr.	C,D	DH	caterer (D)
112 (257)	8-16 hr.		D,C	DH	school (B)
80 (125)	12-20 hr. $\bar{x}$ 12 hr.		C,D,N	DH	caterer (D)

? <u>C. perfringens</u>	11-29	Winston-Salem, N.C.	turkey or dressing
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ESCHERICHIA COLI

? coliforms	5-31	New Jersey	water
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? coliforms	7-28	Lincoln County, Ore.	water
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SALMONELLA

<u>S. typhi-murium</u>	1-21	Everett, Wash.	?salad	+
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<u>S. blockley</u>	3-2	Seattle, Wash.	turkey	+
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<u>S. newport</u>	5-25	Fort Walton, Fla.	turkey	+
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<u>S. newport</u>	5-27	Fort Walton Beach, Fla.	turkey	+
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<u>S. braenderup</u>	6-8	Canton, Kan.	salad	+
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<u>S. braenderup</u>	6-10	McPherson, Kan.	salad	+
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<u>S. oranienburg</u>	6-16	Pennsylvania		+
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<u>S. infantis</u>	6-23	Hawaii		+
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<u>S. typhi</u>	6-28	Yakima, Wash.	?water in soda	+
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<u>S. braenderup</u>	7-19	New York City	turkey	+
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<u>S. thompson</u>	7-23	Los Angeles, Calif.	egg roll, won tons, soybean cakes	+
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	4(4)	10-12 hr.	12 hr.	C,D	Ind.	restaurant (D)
+	477		$\bar{x}$ 48 hr.	D,V,N,C,H,F	DH	floods contaminating water system (A)
+	>375 (1,391)	5-72 hr. $\bar{x}$ 36-48 hr.	1-5 dy.	F,N,V,C,D, chills	DH	defective well, private camp (B)
+	2			D,F,C	DH	hospital (B)
	4(5)	20-28 hr.	48 hr.- 3 wk.	N,V,D,H	DH	home (D)
+	30(60)	18-48 hr.			DH	caterer (D)
+	20(49)	~ 24 hr.			DH	caterer (D)
+	7(13)	~ 24 hr.		D,C,N,F	FDA Salm.	restaurant (B)
+	19(25)	~ 24 hr.		D,N,F,C	FDA Salm.	restaurant (B)
	13(42)			N,V,C,D	Salm.	restaurant (D)
	2 (400)	13-14 hr.		N,V,C,D,F	DH	caterer (D)
	3	19-21 hr.	10-14 hr.	F,D,N	DH	rodeo on Indian reser- vation (D)
+	3(3)	7-14 hr.	3-5 dy.	C,D,N,V,F	DH	restaurant (B)
+	6(10)	< 24 hr.		D,C,F	DH Salm.	restaurant (B)

ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	P.	LAB
<u>S. enteritidis</u>	8-8	Troy, Ohio	ice cream	+	
<u>S. typhi</u> phage type C-1	8-25	Audrain County, Mo.	?water	+	
<u>S. typhi-murium</u> var. <u>copenhagen</u>	8-?	New Jersey	cake		
<u>S. enteritidis</u>	9-3	Cambridge, Mass.	cake	+	
<u>S. orion</u>	9-7	Glenwood Springs, Col.	ham & beef sandwiches	+	
<u>S. St. paul</u>	10-6	Heidlersburg, Pa.	turkey	+	
<u>S. St. paul</u>	10-16	Shelby County, Tenn.	turkey	+	
<u>S. give</u>	10-26	Hawaii	packaged lau lau	+	
<u>S. enteritidis</u>	11-14	Grand Forks, N.D.		+	
<u>S. reading</u>	11-23	Walla Walla, Wash.	turkey	+	
<u>S. typhi-murium</u>	11-27	Appanoose County, Iowa	ice cream	+	
<u>S. enteritidis</u>	11-28	Jersey City, N.J.	turkey and/ or stuffing	+	
<u>S. bareilly</u>	11-?	Wilmington, Del.		+	
<u>S. typhi-murium</u>	12-7	Emmett, Idaho		+	

DATA		CLINICAL DATA			REPORTER	COMMENT
V.	H.	# ill (at risk)	incub. period (hrs.)	Duration of dis. (hrs.)	Symptoms	
+		12(12)	8-20 hr. $\bar{x}$ 10 hr.	$\bar{x}$ 6 dy.	N,V,D,F, weakness	DH home (C)
	+	26(189)	12 dy.		H,C,F, myalgia, malaise	DH camp (B)
+	+	2(3)	18 hr.		F,C,D, weakness, chills	DH home (C)
+		3(3)	24 hr.		D,C,H,F	ECA home (D)
+	+	23(37)	$\bar{x}$ 16-18 hr.		D,C,N,V,F	DH picnic (B)
	+	>112 (600)	7.5-103.8 hr. med. 29.3 hr.		C,N,V,F,D	DH restaurant (B)
+		98 (116)	med. 23 hr.		D,C,F,N,V	MMWR church banquet (A)
		2(5)	12-18 hr.	3-4 dy.	H,N,D,C,F	DH store (D)
		$\sim$ 16 ($\sim$ 80)			F,C,D	DH college (D)
		33 (42)	13-52 hr.	$\bar{x}$ 5.1 dy.	D,C,F,N	DH banquet (A)
		21 ($\sim$ 30)	24 hr.	1-27 dy.	F,V,D, chills	Salm. church group homemade ice cream (D)
+		17 (18)	3-18 hr. $\bar{x}$ 8.3 hr.		N,V,D,F	DH home stuffing- contained sausage- 2 deaths (D)
	+	>49 (133)	7½ hr.- 3 dy.		N,V,F,D,C	DH hotel (D) Salm.
		38 (325)	3-48 hr.		F,C,D	DH smorgasbord (D)

salmonella	6-23	Kansas City, Mo.	chopped liver	
salmonella group B	7-15	Phoenixville, Md.	shrimp and/or hollandaise sauce	+
? salmonella	11-29	Seattle, Wash.	turkey	

SHIGELLA

<u>S. flexneri</u> 2a	3-18	Hawaii		+
<u>S. flexneri</u>	4-2	White Swan, Wash.	potato salad	+
<u>S. sonnei</u>	7-15	York County, Pa.	chicken and/or potato salad	+
<u>S. sonnei</u>	8-28	New York City		+
<u>S. sonnei</u>	9-24	Dayton, Ohio	chicken and potato salad	+

26

STAPHYLOCOCCUS

<u>S. aureus</u> phage type 53	2-28	Miami, Fla.	turkey gravy	+	+
<u>S. aureus</u>	4-14	Hawaii	chicken	+	
<u>S. aureus</u>	5-16	Bellvue, Wash.	chopped salami in salad	+	
<u>S. aureus</u> phage type 80/81/42E	5-21	Miami, Fla.	cake	+	+
<u>S. aureus</u>	5-?	Richland, S.C.	pork	+	
<u>S. aureus</u>	6-16	New York City	hamburger	+	

40	20-30 hr.	C,D,V	FDA	caterer (D)
2(4)	30 hr.	N,C,F,V, prostration	DH ECA	restaurant (D)
4(6)	21-36 hr. 1-3 dy.	N,V,C,D,H,F	DH	home (D)
30	30-45 hr.	H,N,C,D,F	DH	college (D)
60 (105)	± 48 hr.	C,D,V,F	AF	church dinner (B)
3(8)	25 hr.	N,V,C,D,F, prostration	DH, ECA	picnic (D)
21(234)	3-5 dy.	D	DH	hospital (D)
98 (130)	12-70 hr.	D,F,C,N,V	DH	caterer (B)
140 (669)	± 3-5 hr. <24 hr.	N,V,D,weakness, prostration	DH	school (B)
5(7)	4-5 hr.	N,V,C,D	DH	store (D)
2	1½-2 hr.	D,N,V,C	DH	restaurant (D)
15	2 3/4 hr.	N,V,D	DH	bakery (B)
3(8)	3 hr.	N,V,D	DH	restaurant (D)
3(6)	2½-7½ hr. 24- 72 hr.	N,V,C,D	DH	restaurant (B)

ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	LAB DATA			CLINICAL DATA			REPORTER	COMMENT
				P.	V.	H.	# ill (at risk)	incub. period (hrs.)	Duration of dis. (hrs.)		
<u>S. aureus</u>	7-1	Bozeman, Montana	shrimp	+			2(2)	1-6 hr.	2-12 hr.	DH	store (D)
<u>S. aureus</u>	7-20	Des Moines, Iowa	beef	+		+	30(270)	3½ hr.		DH	banquet (B)
<u>S. aureus</u> phage type 6/7/42E/47/53/54/	8-1	Coldwater, Kan.	potato salad--ham	+	+		22(95)			FDA	banquet (B)
<u>S. aureus</u>	8-8	Charleston, W. Va.	cheese	+			2(3)	3 hr.	3-12 hr.	DH	restaurant (D)
<u>S. aureus</u> phage type 6/7/42E/47/53/54/ 73/75/81/83/B	8-14	New York City	ham	+	+		3	3 hr.		DH	restaurant (B)
<u>S. aureus</u> type 85	8-21	Miami, Fla.	submarine sandwich	+	+		5(8)	2-6 hr. x 3.5 hr.		DH	home (B)
<u>S. aureus</u>	8-22	Brandon, Fla.	ham	+	+	+	44(56)	2.8 hr.	<24 hr.	DH	picnic (B)
<u>S. aureus</u>	8-24	Elmira, N.Y.	roast beef	+	+		~200 (~4,500)	x 4 hr.		FDA	catered picnic (B)
<u>S. aureus</u>	8-25	Nashville, Tenn.	ham and/or beans, potatoes	+			14(50)	1½-6 hr.		DH, FDA	church supper (D)
<u>S. aureus</u>	8-29	San Jose, Calif.	corned beef			+	6	2½-5½ hr.	x 15 hr.	DH	restaurant (B)
<u>S. aureus</u>	9-3	Ponce, P.R.	ham	+	+		~140 (~446)	x 4 hr.		DH	catered food in hospital (B)
<u>S. aureus</u> phage type 53	9-12	Pittsburg, Pa.	ham loaf	+	+		4	x 3½ hr.	24 hr.	DH	store (B)
<u>S. aureus</u> phage type 86/42E/47/53/75/42D/81 Enterotoxins A & C	9-12	Morton, Miss.	eggs in tuna salad	+	+		406 (1,241)	1-9 hr. x 3½ hr.	x 6 hr.	DH	school (B)
<u>S. aureus</u>	9-17	Walsenburg, Col.	beef and pork hash	+			79 (297)	4-6 hr.		DH	school (D)
<u>S. aureus</u>	10-15	Plantation, Fla.	ham	+			> 90 (160)	3-5 hr.		DH	banquet (B)

<u>S. aureus</u> phage type 6/47/53/85 Enterotoxins A & D	10-17 Seattle, Wash.	turkey	+	+	+
<u>S. aureus</u>	10-? Newberry, S. C.	pork		+	
<u>S. aureus</u> phage type 47/54/75/77 Enterotoxin A	11-10 Waukesha Co., Wisconsin	ham	+	+	+
<u>S. aureus</u>	11-12 Washington, D.C.	corned beef		+	
<u>S. aureus</u>	11-18 Stockton, Calif.	custard cake		+	
<u>S. aureus</u> phage type 42E/77 ⁺	11-22 Prairie Village, Kansas	corned beef and roast beef		+	+
<u>S. aureus</u>	11-25 Memphis, Tenn.	pork		+	+
<u>S. aureus</u> phage type 53	11-26 Hialeah, Fla.	turkey	+	+	+
<u>S. aureus</u>	12-20 Ponce, P. R.	pork		+	
Prob. <u>S. aureus</u>	5-23 Seattle, Wash.	crab		+	
Prob. <u>S. aureus</u>	6-9 Lakewood, N.J.	eggs			
Prob. <u>S. aureus</u>	7-5 New York City	Chinese fried rice			+
Prob. <u>S. aureus</u>	7-19 San Diego, Calif.	shrimp			
Prob. <u>S. aureus</u>	8-16 Mt. View, Calif.	barbeque ham			
? Staph	5-7 New York City	cream cake		+	
? Staph	6-26 Sacramento, Calif.	?eggs			
? Staph	6-? Oak Harbor, Wash.	?chocolate candy			

78(300)	1½-6 hr. med. 3½ hr.	14 hr.- 3 dy.	N,V,D,C,H, chills	DH	bazaar (B)
15(300)	4 hr.		N,V,D	DH	school (D)
28	1¼-3 hr.		V,D, prostration	DH	store, 1 death (B)
52	3-5 hr.	12-24 hr.	N,C,V,D	AF	cafeteria (B)
4 (6)	4-5½ hr.	6-24 hr.	N,V, chills, malaise	DH	home (B)
17	4-6 hr.		N,V,C,D,	DH	restaurant (B)
59(150)	$\bar{x}$ 5.1 hr.	$\bar{x}$ 12 hr.	N,V,C,D	DH	school (B)
207 (890)	2-8 hr. $\bar{x}$ 4-5 hr.	4.1 hr.	N,V,D,C,H, weakness	DH	school (B)
2	½ hr.		V,C,H, dizziness	DH	hospital (D)
2	1½ - 3 hr.	4 hr.	N,V,C,	DH	restaurant (D)
8 (15)	$\bar{x}$ 3 hr.	< 24 hr.	N,V,D	DH	home (C)
9 (10)	½ - 1½ hr.	$\bar{x}$ 36 hr.	N,V,D,C	DH	restaurant (B)
3 (3)	2½-4½ hr.	$\bar{x}$ 3 hr.	N,V,C,D	DH	home (B)
2	3½ hr.	12 hr.	N,V,D	DH	restaurant (D)
3 (3)	2-6½ hr.	24-36 hr.	N,V,D,C	DH	home (D)
3 (4)	2-11½		N,V,C	DH	restaurant (D)
9 (11)	5 hr.	7-10 hr.	C,N,D	DH	home (D)

ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	LAB DATA		
				P.	V.	H.
? Staph	7-26	Illinois	ham			
? Staph	8-11	Blue Creek, W. Va.	ham			
? Staph	8-26	Morgantown, W. Va.	turkey		+	
? Staph	8-?	Olympia, Wash.	green beans			
? Staph	9-8	New York City				
? Staph	9-26	Mayaguez, P. R.	codfish salad			
? Staph	9-31	Miami, Fla.	salad dressing			
? Staph	9-?	Port Huron, Mich.	custard buns			
? Staph	10-7	New York City	lamb chops and sauce			
? Staph	10-17	Towtowa, N. J.				
? Staph	10-22	Harrison, N. J.	chicken			
? Staph	10-22	Muskegon, Mich.	turkey and dressing			
? Staph	10-24	Seattle, Wash.	rice and pork			+
? Staph	10-?	Ephrata, Wash.				
? Staph	11-?	Olympia, Wash.				

CLINICAL DATA				REPORTER	COMMENT
# ill (at risk)	incub. period (hrs.)	Duration of dis. (hrs.)	Symptoms		
3 (4)	1-4 hr. $\bar{x}$ 2½ hr.		N,C,D	DH	restaurant (D)
3 (3)	1 hr.	$\bar{x}$ 36 hr.	N,V,C,D	DH	food eaten in field (D)
199 (315)	$\bar{x}$ 8 hr.	$\bar{x}$ 1½ hr.	N,V,C, weakness, myalgia	DH	school (B)
7 (9)	$\bar{x}$ 3.9	several hours	N,V,D,C	DH	home (D)
3 (3)	1½ - 4 hr.	48 hr.	D,C,N,V,H	DH	restaurant (B)
23(25)	2-4½ hr.	3-10 hr.	C,V,D,H,F	DH	prison (D)
2	2 hr.		N,V,D,C	DH	restaurant (D)
36	~ 4 hr.		C,D,N,V	DH	bakery (B)
3 (4)	4 hr.		N,V,H	DH	home (D)
9 (45)	4-13 hr.	$\bar{x}$ 8 hr.	V,D,F	DH	school (D)
2 (2)	1½ - 3 hr.	½ dy.	V,D	DH	home (D)
8 (11)	4-8 hr.	30-36 hr.	V,D	DH	home (D)
3 (5)	3/4- 1 1/4 hr. med. 1 hr.	$\bar{x}$ 4 hr.	N,V,C,D,H	DH	restaurant (D)
4 (5)	5-10 hr.		N,V,C,D	DH	home (D)
7 (13)	1-7 hr.	5 hr.	H,N,C,D	DH	home (D)

STREPTOCOCCUS

Group G	10-16 Vermont	egg salad	+	
Group A beta hemolytic	11-15 Pratt, Kan.	egg salad	+	+
Enterococcus	4-29 New York City	roast beef		+
Enterococcus	6-22 New York City	shrimp		+
Enterococcus	7-15 New York City	macaroni salad and ham		+
Enterococcus	7-18 New York City	roast beef and sausage		+
Enterococcus	7-23 New York City	ham		+
Enterococcus	7-25 New York City	roast beef		+
? Enterococcus	3-24 New York City	manicotti		+
? Enterococcus	12-31 New York City			

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CHEMICAL

Histamine	1-16 Hawaii	frozen taiwan mahimahi	+	
Zinc	6-20 Port Arthur, Tex.	ice	+	+
Scombroid fish poisoning histamine-like substance	7-19 New York City	tuna fish		+
Carbophenothion (Trithion)	8-19 Brookshire, Tex.	tortillas		+

172 (502)	~3 dy.	H,F, pharyngitis chills	MMWR	school (D)
~400 (850)	~ 20-30 hr.	H,F,V, pharyngitis chills	DH	school (B)
22 (45)	14 hr.	C,D	DH	caterer (B)
5 (5)	8-21 hr.	N,V,D,C	DH	home (B)
3 (3)	2½-3 hr.	N,C,D	FDA, DH	store (B)
3(3)	2-5 hr.	N,V,C,D	DH	restaurant (B)
4 (6)	5½ hr.	N,V,C	FDA,DH	home (B)
3 (8)	12-21 hr. 2 dy.	D,C,N,V	DH	store (B)
25(120)	3½-16½ hr. 12-72 12 hr. 18 hr.	C,D	DH	restaurant (B)
4 (4)	5½-7½ hr. ~ 6½ hr.	24 hr. N,V,C	DH	restaurant (B)
6	15-30 m. 1-2 dy.	H,C,D,flushing chills	DH	home (D)
17	20-30 m.	C,V, prostration	DH	restaurant (D)
8 (9)	30 m. 1-4 hr.	N,D,C,H, flushing, urticarial rash conjunctivitis	DH	home (B)
6	1-7 hr.	N,V,C,D,F, leg cramps, miosis, respiratory distress	MMWR	home (D)

ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	LAB DATA			CLINICAL DATA				REPORTER	COMMENT
				P.	V.	H.	# ill (at risk)	incub. period (hrs.)	Duration of dis. (hrs.)	Symptoms		
Monosodium Glutamate (Chinese food poisoning)	9-27	Seattle, Wash.	Chinese food				3 (5)	15-30 m. ± 15 m.	̄ ½ hr.	Paresthesias of neck and extremities, blurred vision, tachypnea, palpitations	DH	restaurant (B)
Histamine-like substance (Scombroid fish poisoning)	10-4	New York City	tuna fish				5 (5)	20-30 m.	2-6 hr.	D,C, rash palpitations	DH	home (C)
Monosodium Glutamate (Chinese food poisoning)	10-17	Pompano Beach, Fla.	won ton soup				3 (5)	10-15 m.	̄ 1 hr.	H, flushing paresthesias	DH	restaurant (B)
Prob. Chinese food poisoning	9-12	New York City	?egg drop soup				3 (3)	20 m.	3-18 hr.	H, paresthesias of face and neck, neck pain	DH	restaurant (B)
Prob. copper poisoning	9-13	New York City	soda				5 (25)	5 m.	3 hr.	N,V,C	DH	store (B)
? Chemical	9-8	Anchorage, Alaska	asparagus in rusty can				2 (2)	2½ hr.		H,N,V, malaise dizziness	DH	camping (A)
? Chemical	10-8	New York City	chicken noodle soup				3 (4)	30 m.	7 hr.	V,C	DH	home (D)
? Chemical	11-11	Chicago, Ill.	pancakes				6 (10)	1 hr.		C,N,V,H, dizziness	DH	home (D)
? Chemical	12-6	Trenton, N. J.	sausage				3 (4)	2 hr.	6 hr.	N,F,V, prostration	DH	home (D)
PARASITIC												
<u>Trichinella spiralis</u>	5-9	Syracuse, N. Y.	pork	+			4 (4)	2½ wk.		periorbital edema, Para. eosinophilia		home (A)
<u>Trichinella spiralis</u>	5-?	New Berlin, Wisc.	raw hamburger	+			8	1 wk.		eosinophilia	MMWR	home (B)
<u>Trichinella spiralis</u>	8-1	Anchorage, Alaska	black bear	+	+		8 (30)	~20 dy.		F, myalgia, periorbital edema, eosinophilia	DH	home (C)

<u>Trichinella spiralis</u>	9-4	New York City	pork	+	
<u>Trichinella spiralis</u>	12-28	Washington, Mo.	raw pork sausage	+	+
<u>Trichinella spiralis</u>	12-7	Washington, Miss.	pork	+	+

VIRAL

Hepatitis	7-28	Cuyahoga Co., Ohio	?water		
Hepatitis	8-10	San Pedro, Calif.	cream cakes		
Hepatitis	9-9	Limestone Co., Ala.	?water		

OTHER

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<u>Bacillus cereus</u>	7-9	Brookfield, Vermont	meat casserole		+
<u>Mycobacterium bovis</u>	10-?	Wayne Co., Ohio	unpast. milk	+	+

UNKNOWN

1-?	Chehalis, Wash.	
1-?	Beaufort, S. C.	chicken
1-?	Richland, S. C.	pancake and eggs
1-?	Richland, S. C.	hamburger
1-?	Jasper, S. C.	hamburger
1-?	Richland, S. C.	shrimp
2-?	Clarendon, S. C.	turkey

2	24 hr.	peri. edema eosinophilia	Para.	home (A)
47		H,F, peri. edema eosinophilia, myalgia, conjunctivitis	MMWR	home (A)
4 (10)	9 dy.	F,V,D, myalgia periorbital edema, eosinophilia	MMWR	home (C)
5 (16)	13-33 dy.	jaundice, bili- rubinuria, abnormal LFT's	DH	picnic (C)
76	$\bar{x}$ 28.1 dy.	anorexia, N,C, icterus, SGOT	DH	bakery (B)
21 (~750)		jaundice, bili- rubinuria, SGOT	MMWR	school (D)
66 (100)	11-21 hr. 1-48 hr. $\bar{x}$ 16½ hr. $\bar{x}$ 11.3 hr.	D,N,C	DH	camp (B)
5		Positive tuberculin skin test	DH	farm tuberculosis cows (C)
5 (6)	36 hr. 2-3 dy.	C,N,V,D	DH	restaurant (D)
2 (2)		N,D	DH	restaurant (D)
2 (2)	24 hr.	N,C	DH	restaurant (D)
2 (3)	5 hr.	N,C,D	DH	restaurant (D)
24(32)	25 hr.	N,V,F	DH	restaurant (D)
15(113)	11 hr.	C,D	DH	restaurant (D)
575 (900)	14 hr.	N,C,D	DH	school (D)

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ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	LAB DATA			CLINICAL DATA			REPORTER	COMMENT	
				P.	V.	H.	# ill (at risk)	incub. period (hrs.)	Duration of dis. (hrs.)			Symptoms
	2-28	Coral Gables, Fla.					30(730)	10-18 hr.		N,V,D, leukocytosis	DH	school (D)
	3-18	Hawaii					10	24-36 hr.	1-3 dy.	N,V,C,D, chills	DH	restaurant (D)
	3-26	New York City					26			N,V,C,D	DH	hospital (D)
	3-?	Spokane, Wash.					6 (6)	10 - 14 hr.		C,N,V,D	DH	home (D)
	3-?	Barnwell, S.C.	chicken				65(700)	13 hr.		D	DH	school (D)
	3-?	Greenwood, S.C.	hot dogs				3(3)	1½ hr.		N,D	DH	restaurant (D)
	3-?	Richland, S. C.	hot dogs				4(4)	7 hr.		N,V,C	DH	restaurant (D)
	5-13	Seattle, Wash.	chicken liver				2 (9)	2½ hr.		D,C,V, chills	DH	restaurant (D)
	5-20	New York City					3 (3)	9-20 hr.	2-3 dy.	N,V,D,C	DH	home (D)
	6-3	New York City	?roast beef				3 (3)			C,D	DH	restaurant (D)
	6-9	New York City	?tongue and chopped liver				~20 (130)	3-17 hr.		D,C	DH	caterer (B)
	6-15	Aurora, Ill.	?beef				3	2-2½ hr.			DH	home (D)
	6-26	New York City	shrimp or steak				3 (3)	½-5 hr.		D,C,N,V,F	DH	restaurant (D)
	6-27	Independence, Mo.	frankfurters				4 (4)			V,D,F	FDA, DH	home (D)
	6-?	Georgetown, S.C.	seafood				5(300)	3 hr.		N,V,C	DH	restaurant (D)
	7-6	Coyote, Calif.	steak				28(48)	12-50 hr. med. 30 hr.		N,V,C,F, myalgia	DH	banquet (D)

7-10	San Jose, Calif.	beef
7-19	Lynwood, Wash.	egg salad and ham
7-20	Sedalia, Mo.	hamburger
7-?	Olympia, Wash.	?water
8-2	Kansas City, Mo.	roast beef
8-27	Carmichael, Calif.	ice cream
8-28	Oakland, Calif.	prosciutto ham
8-29	Arkansas	
8-?	Lexington, S. C.	macaroni salad
8-?	Richland, S. C.	chicken
8-?	Spokane, Wash.	
9-11	New York City	
9-24	New York City	?lamb
9-28	Hawaii	kalua pork or chicken long rice
9-?	Bremerton, Wash.	
9-?	Lancaster, S. C.	turkey
10-2	San Jose, Calif.	cake

5 (6)	8-10 hr.	$\bar{x}$ 12 hr.	C, D	DH	restaurant (D)
60(65)	$\bar{x}$ 31 hr.	$\bar{x}$ 24 hr.	N, V, D, H, F, myalgia	DH	home (D)
18(48)	4-10 hr.		V, C, D	FDA, DH	store (D)
15	12-60 hr.	6-12 hr.	N, V, D	DH	picnic (D)
4 (10)	3½-5 hr.		V, D, N, prostration	ECA	restaurant (D)
6 (6)	8-12 hr.	~12 hr.	N, V, D	FDA	home (D)
6 (6)	24-48 hr.	$\bar{x}$ 1 dy.	N, V, D, C, F	DH	home (D)
60(480)			C, N, V	DH	picnic (D)
2(2)			N	DH	restaurant (D)
4(7)	4 hr.		N, V, C, D	DH	restaurant (D)
2	1 hr.	18 hr.	N, V, dizziness	DH	restaurant (D)
13(16)	21-44 hr. med. 33½ hr.	48 hr.	H, N, V, C, D	DH	restaurant (D)
4(5)	6 hr.	2-6 dy.	N, V, C, D	DH	home (D)
17(235)	10-16 hr.	1-2 dy.	C, D, chills	DH	commercial luau (D)
5(5)	8-9½ hr.	12 hr.	H, N, V	DH	home (D)
226 (548)	18 hr.		N, V, C, D	DH	school (D)
5(9)	2½-4 hr.	$\bar{x}$ 12 hr.	N, D, C	DH	home (D)

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ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	LAB DATA			CLINICAL DATA			REPORTER	COMMENT	
				P.	V.	H.	# ill (at risk)	incub. period (hrs.)	Duration of dis. (hrs.)			Symptoms
	10-2	Saratoga, Calif.	?macaroni salad, ?eggs				4(4)	7-10 hr.		C,D,V,F,H	DH	restaurant (D)
	10-5	Mt. Vernon, N. Y.					2	3 hr.	5 hr.	N,V,C,D	DH	banquet (D)
	10-10	Greenfield, Mo.	turkey				150	12-21 hr.		D,N,V,C, chills	FDA	school (D)
	10-10	Ranson, W. Va.	turkey				109 (204)	6-24 hr. x 10	x 24 hr.	N,V,C,D,F	DH	school (D)
	10-13	Newport, Oregon					>24 (180)	~30- 36 hr.		N,V,D,F,C	DH	banquet (D)
	10-16	Stanton, Calif.	imitation milk				7 (7)	12-24 hr.	x 12 hr.	N,V,F,D	DH	home (A)
	10-18	Sunnyvale, Calif.	chicken				5 (5)	1/2-12 hr.		C,D,V	DH	cafeteria (D)
	10-20	Campbell, Calif.	roast beef				2 (3)	3 1/2 -4 hr.	1-2 dy.	C,V,D	DH	restaurant (D)
	10-22	San Jose, Calif.	fishburger				2 (2)	4 hr.	3 1/2 hr.	C,N,D	DH	restaurant (D)
	10-23	St. Paul, Minn.	meat loaf and gravy				46 (409)	x 8.4 hr.		C,D	DH	school (D)
	10-?	Sumter, S. C.	cookies				3(3)	6 hr.		N,V	DH	store (D)
	10-?	Lexington, S. C.	turkey				70(233)	22 hr.		N,D	DH	school (D)
	10-?	Pickens, S. C.	ham				20(182)	4 hr.		N,V,C	DH	school (D)
	11-5	Hawaii	roast beef				34 (36)	8-15 hr.	1-2 dy.	C,D	DH	restaurant (D)
	11-10	San Antonio, Tex.					6				DH	hospital (D)
	11-14	Stringtown, Ill.	weiners and macaroni				35(65)	med. 8 hr.		D,V,C,N,F	DH	school (D)

11-16	New Haven, Conn.	raw clams		17(23)	31-53 hr. x 38.9 hr.	N,V,F,D	DH	restaurant (D)
11-20	Renton, Wash.			69(100)	20-65 hr. mode med. 37 > 2½ hr. dy.	N,V,D,F, chills	DH	church dinner (D)
11-28	Belvedere, Calif.	turkey		19(28)	6-60 hr. x 24 hr.	D,V,C	DH	home (D)
12-5	Selma, Ala.	pork				N,D	FDA	school (D)
12-14	New York City			3 (6)	2-4 hr. 12-24 hr.	N,V,C,D	DH	restaurant (D)
12-16	Denver, Colo.			3 (4)	12 hr.	N,V,D	DH	restaurant (D)
12-17	Hawaii	mahimahi		3 (3)	1 hr.	H,N,D, flushing, tingling of lips	DH	restaurant (D)
12-19	San Jose, Calif.	chili hot dog		2 (2)	2-5 hr.	C,V, shock	DH	restaurant (D)
12-?	Tumwater, Wash.			100 (200)	30-36 hr. 24 hr.	F,N,V,D	DH	church dinner (D)

The following outbreaks were not received in time for inclusion in the preceding tabulations.

Infectious hepatitis	11-?	Buckley, Wash.	water		5 (9)	jaundice, abnormal liver function tests	DH	home (C)	
Chemical - copper	11-10	New York City	soda	+	3 (3)	Few minutes	N,V	DH	vending machine in theater (A)
<u>S. sonnei</u>	11-11	Snohomish County, Wash.	water	+	20 (24)		D,V,F	DH	cabin (C)

Section F

Line listing of episodes of food poisoning not included in the tabular data.

ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	LAB DATA			CLINICAL DATA			REPORTER	COMMENT
				P.	V.	H.	# ill (at risk)	incub. period (hrs.)	Duration of dis. (hrs.)		
<u>BACTERIAL</u>											
<u>B. melitensis</u>	3-25	California	unpast. goat milk	+			1			Bruc.	raw goat milk in Mexico (C)
Brucella	3-27	California	unpast. milk	+			1			Bruc.	raw milk in Mexico (C)
Brucella	4-?	Illinois	unpast. milk	+			1			Bruc.	raw milk (C)
Brucella	6-?	Oklahoma	unpast. milk	+			1			Bruc.	raw milk (C)
Brucella	7-5	Mississippi	unpast. milk	+			1			Bruc.	raw milk (C)
Brucella	7-6	California	unpast. milk	+			1			Bruc.	raw milk (C)
Brucella	7-15	California	cheese	+			1			Bruc.	cheese in Mexico (C)
Brucella	7-16	Mississippi	unpast. milk	+			1			Bruc.	raw milk (C)
Brucella	8-3	Illinois	unpast. milk	+			1			Bruc.	raw milk in Mexico (C)
Brucella	8-5	Mississippi	unpast. milk	+			1			Bruc.	raw milk (C)
Brucella	8-7	North Dakota	unpast. milk	+			1			Bruc.	raw milk (C)
Brucella	10-?	Utah	unpast. milk	+			1			Bruc.	raw milk (C)
Brucella	12-4	North Dakota	unpast. milk	+			1			Bruc.	raw milk (C)
<u>S. aureus</u>	9-?	Clarksville, Tenn.	sausage		+		1		V,D	FDA	restaurant (A)

Prob. S. aureus 3-? Richland, S. C. meat

PARASITIC

Trichinella spiralis 2-22 Harker Heights, pork +
Tex.

Trichinella spiralis 4-7 Cleveland, Ohio pork +

Trichinella spiralis 5-1 Fairborn, Ohio pork +

Trichinella spiralis 5-? Chicopee, Mass. +

Trichinella spiralis 6-1 New York City pork +

Trichinella spiralis 6-10 San Diego, Calif. pork +

Trichinella spiralis 6-29 Summersville, sausage +
W. Va.

Trichinella spiralis 7-2 Cleveland, Ohio pork +

Trichinella spiralis 7-8 Whately, Mass. sausage +

Trichinella spiralis 7-9 Adkins, Iowa +

Trichinella spiralis 7-13 Bald Knob, sausage +
W. Va.

Trichinella spiralis 7-16 Providence, R.I. pork +

1 (2)	4 hr.	N, V, C	DH	restaurant (D)
1		periorbital edema, eosinophilia	Para.	(D)
1	3 wk.	periorbital edema, eosinophilia	Para.	home (D)
1		periorbital edema, eosinophilia	Para.	home (A)
1		periorbital edema, eosinophilia	Para.	home (D)
1		eosinophilia	Para.	restaurant (A)
1	2 wk.	C, eosinophilia, myalgia	Para.	home (A)
1		eosinophilia	Para.	home (A)
1		eosinophilia	Para.	home (A)
1	3 dy.	periorbital edema, eosinophilia	Para.	home (A)
1		periorbital edema, eosinophilia	Para.	(D)
1	10 dy.	periorbital edema, eosinophilia	Para.	home (A)
1	2 dy.	periorbital edema, eosinophilia	Para.	home (A)

ETIOLOGY	ONSET	REPORTED FROM	VEHICLE	LAB DATA			# ill (at risk)	incub. period (hrs.)	Duration of dis. (hrs.)	Symptoms	REPORTER	COMMENT
				P.	V.	H.						
<u>Trichinella spiralis</u>	9-22	Philadelphia, Pa.	pork	+			1			periorbital edema, eosinophilia	Para.	home (A)
<u>Trichinella spiralis</u>	10-14	Detroit, Mich.	pork	+			1			periorbital edema,	Para.	home (A)
<u>Trichinella spiralis</u>	12-6	Westerly, R. I.	pork sausage	+			1	1 wk.		eosinophilia	Para.	home (A)
<u>Trichinella spiralis</u>	12-17	Westerly, R. I.	sausage	+			1	2 dy.		periorbital edema, eosinophilia	Para.	home (D)
<u>UNKNOWN</u>												
	1-?	Sumter, S. C.	ice cream				1	6 hr.		N,V,C,D	DH	restaurant (D)
	2-?	Richland, S. C.	hamburger				1 (1)	6 hr.		N,V,D,F	DH	restaurant (D)
	3-?	Charleston, S.C.	meat				1 (1)	24 hr.		N,F,D,C	DH	restaurant (D)
	5-?	Sumter, S. C.	orange juice				1 (1)	4 hr.		V,C	DH	store (D)
	7-24	Casey, Ill.	?ham				1	3 hr.	48 hr.	N,V,D	DH	home (D)
	10-?	Aiken, S. C.	meat					8 hr.		N,C	DH	caterer (D)
	11-?	Anderson, S. C.	hot dog				1 (1)	8 hr.		N,V	DH	restaurant (D)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
Health Services and Mental Health Administration
NATIONAL COMMUNICABLE DISEASE CENTER
EPIDEMIOLOGY PROGRAM
ATLANTA, GEORGIA 30333

INVESTIGATION OF A FOODBORNE OUTBREAK

1. Where did the outbreak occur? State _____ (1,2) City or Town _____ County _____		2. Date of outbreak: (Date of onset 1st case) _____ (3-8)	
3. Indicate actual (a) or estimated (e) numbers: Persons exposed _____ (9-11) Persons ill _____ (12-14) Hospitalized _____ (15-16) Fatal cases _____ (17)	4. History of Exposed Persons: No. histories obtained _____ (18-20) No. persons with symptoms _____ (21-23) Nausea _____ (24-26) Diarrhea _____ (33-35) Vomiting _____ (27-29) Fever _____ (36-38) Cramps _____ (30-32) Other, specify _____ (39)		
5. Incubation period (hours): Shortest _____ (40-42) Longest _____ (43-45) Approx. for majority _____ (46-48)		6. Duration of Illness (hours): Shortest _____ (49-51) Longest _____ (52-54) Approx. for majority _____ (55-57)	

7. Food-specific attack rates: (58)

Food Items Served	Number of persons who ATE specified food				Number who did NOT eat specified food			
	Ill	Not Ill	Total	Percent Ill	Ill	Not Ill	Total	Percent Ill

8. Vehicle responsible (food item incriminated by epidemiological evidence): (59,60)

9. Manner in which incriminated food was marketed: (Check all applicable) (a) Food Industry (61) Raw _____ 1 Processed _____ 2 Home Produced Raw _____ 3 Processed _____ 4 (c) Not wrapped _____ 1 (63) Ordinary Wrapping _____ 2 Canned _____ 3 Canned-Vacuum Sealed _____ 4 Other (specify) _____ 5 (b) Vending Machine _____ 1 (62) (d) Room Temperature _____ 1 (64) Refrigerated _____ 2 Frozen _____ 3 Heated _____ 4 If a commercial product, indicate brand name and lot number _____	10. Place of Preparation of Contaminated Item: (65) Restaurant _____ 1 Delicatessen _____ 2 Cafeteria _____ 3 Private Home _____ 4 Caterer _____ 5 Institution: School _____ 6 Church _____ 7 Camp _____ 8 Other, specify _____ 9 _____ _____	11. Place where eaten: (66) Restaurant _____ 1 Delicatessen _____ 2 Cafeteria _____ 3 Private Home _____ 4 Picnic _____ 5 Institution: School _____ 6 Church _____ 7 Camp _____ 8 Other, specify _____ 9 _____ _____
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LABORATORY FINDINGS (Include Negative Results)

12. Food specimens examined: (67)

Specify by "X" whether food examined was original (eaten at time of outbreak) or check-up (prepared in similar manner but not involved in outbreak)

[illegible]

15. Specimens from food handlers (stool, lesions, etc.): (70)

Item	Findings
Example: lesion	C. perfringens, Hobbs type 10

17. Etiology: (77, 78)

Pathogen

Chemical.

Other.

13. Environmental specimens examined: (68)

[illegible]

14. Specimens from patients examined (stool, vomitus, etc.): (69)

[illegible]

16. Factors contributing to outbreak (check all applicable):

	Yes	No
1. Improper storage or holding temperature	☐ 1	☐ 2 (71)
2. Inadequate cooking	☐ 1	☐ 2 (72)
3. Contaminated equipment or working surfaces	☐ 1	☐ 2 (73)
4. Food obtained from unsafe source	☐ 1	☐ 2 (74)
5. Poor personal hygiene of food handler	☐ 1	☐ 2 (75)
6. Other, specify	☐ 1	☐ 2 (76)

Suspected	☐ 1 (79)
Confirmed	☐ 2
Unknown	☐ 3

18. Remarks: Briefly describe aspects of the investigation not covered above, such as unusual age or sex distribution; unusual circumstances leading to contamination of food, water; epidemic curve; etc. (Attach additional page if necessary)

Name of reporting agency: (80)

Investigating official:

Date of investigation:

NOTE: Epidemic and Laboratory Assistance for the investigation of a foodborne outbreak is available upon request by the State Health Department to the National Communicable Disease Center, Atlanta, Georgia 30333.