

NATIONAL
COMMUNICABLE DISEASE CENTER

SALMONELLA

S U R V E I L L A N C E



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FOR THE MONTH OF JANUARY

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / PUBLIC HEALTH SERVICE
Bureau of Disease Prevention and Environmental Control

PREFACE

Summarized in this report is information received from State and City Health Departments, university and hospital laboratories, the National Animal Disease Laboratory (USDA, ARS), Ames, Iowa, and other pertinent sources, domestic and foreign. 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 original investigator for confirmation and interpretation.

Contributions to the Surveillance Report are most welcome. Please address

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I. SUMMARY

In January 1967, 1,435 isolations of salmonellae were reported from humans, an average of 359 isolations per week (Tables I and II). This number represents a decrease of 10 (2.7 percent) from the weekly average of December 1966 and a decrease of 24 (6.3 percent) from the weekly average of January 1966.

Reports of 979 nonhuman isolations of salmonellae were received during January, an increase of 284 (40.9 percent) over December 1966 (Tables IV and V).

II. REPORTS OF ISOLATIONS FROM THE STATES

A. Human

The seven most frequently reported serotypes during January were:

<u>Rank</u>	<u>Serotype</u>	<u>Number</u>	<u>Percent</u>	<u>Rank Last Month</u>
1	<u>S. typhi-murium</u> and <u>S. typhi-murium var.</u> <u>copenhagen</u>	471	32.8	1
2	<u>S. heidelberg</u>	117	8.2	2
2	<u>S. saint-paul</u>	86	6.0	6
4	<u>S. newport</u>	82	5.7	3
5	<u>S. infantis</u>	62	4.3	5
6	<u>S. enteritidis</u>	44	3.1	4
7	<u>S. typhi</u>	41	2.9	Not listed
	Total	903	63.0	
	Total (all serotypes)	1435		

The age and sex distribution (Table III) was similar to that of previous months.

B. Nonhuman

Thirty-five states reported nonhuman isolations, represented by 63 different serotypes.

The seven most frequently reported serotypes during January were:

<u>Rank</u>	<u>Serotype</u>	<u>Predominant Source and Number</u>	<u>Number</u>	<u>Percent</u>	<u>Rank Last Month</u>
1	<u>S. typhi-murium</u> and <u>S. typhi-murium var.</u> <u>copenhagen</u>	Swine (41), Chickens (20), and Cattle (19)	129	13.2	1
2	<u>S. derby</u>	Swine (49)	64	6.5	Not listed
3	<u>S. cubana</u>	Candy (32)	58	5.9	2
4	<u>S. heidelberg</u>	Turkeys (28)	52	5.3	4
4	<u>S. anatum</u>	Swine (15)	52	5.3	6
6	<u>S. infantis</u>	Chickens (33)	51	5.2	5
7	<u>S. alachua</u>	Swine (33)	46	4.7	Not listed
	Total		452	46.1	
	Total (all serotypes)		979		

The most prominent nonhuman sources of salmonellae reported during January were swine, 208 (21.2 percent); turkey, 140 (14.3 percent); chicken, 101 (10.3 percent); livestock feed, 54 (5.5 percent); and dry milk, 51 (5.2 percent). Salmonella derby ranks second this month due mainly to 48 isolates from swine reported by Louisiana. Louisiana also reported 33 isolations of S. alachua from swine. The S. cubana isolations from candy were due to a red stock coloring solution made from contaminated carmine dye.

III. CURRENT INVESTIGATIONS

NONE

IV. REPORTS FROM THE STATES

NONE

V. SPECIAL REPORTS

NONE

VI. INTERNATIONAL

NONE

VII. FOOD AND FEED SURVEILLANCE

Progress Report on Pilot Food and Feed Surveillance Program

During January 1967, 225 ice cream samples were received from eight states by the Veterinary Public Health Laboratory and examined for salmonellae, staphylococci, and Escherichia coli. There were 184 samples of hard type ice cream, 38 of the soft or custard type, and 3 ice cream mixes. Escherichia coli was isolated from 14 samples of hard type and 1 sample of soft type ice cream, representing 13 brands. Coagulase-positive staphylococci were isolated from 4 samples of ice cream. Three of these were the same brand and from the same state, North Carolina. No salmonellae were isolated from any of the samples.

TABLE I
COMMON SALMONELLA SEROTYPES ISOLATED FROM HUMANS IN THE UNITED STATES DURING JANUARY, 1967

SEROTYPE	GEOGRAPHIC DIVISION AND REPORTING CENTER																											SEROTYPE											
	NEW ENGLAND						MIDDLE ATLANTIC						EAST NORTH CENTRAL						WEST NORTH CENTRAL						SOUTH ATLANTIC														
	ME	NH	VT	MASS	RI	CONN	TOT	NY-A	NY-BI	NY-C	NJ	PA	TOT	OHIO	IND	ILL	MICH	WIS	TOT	MINN	IOWA	MO	ND	SD	NEBR	KAN	TOT		DEL	MD	DC	VA	WV	NC	SC	GA	FLA	TOT	
anatum				4		4		1			2	3	1		1				1	3																			anatum
bareilly									1			1															1	1											bareilly
berta																			2	2																		berta	
blockley				4				1	1			2	2		3	3				8									1	1		1	1		1	5	10	blockley	
braenderup					2	2													1	1																		braenderup	
bredeney								1	1			2			1	2			2	5							1	1										bredeney	
chester															2	2			1	5																		chester	
cholerae-suis v kun																																						cholerae-suis v kun	
cubana								1	2			2	5	3			3		1	1	1								1	1								cubana	
derby				2		2														6								1	1							5	derby		
enteritidis				11	1	12		2	2		3	7	1	1	3	5	2	12	1		1					2	4		2				1		1	4	enteritidis		
give												1																								1	1	give	
heidelberg	1			14	1	17		2	5	1	6	14	10	4	6	6	3	29	1							1	1	4	1	2		5		2	15	heidelberg			
indiana												1			2		2	5													1				1	2	indiana		
infantis				1		1		2			1	5	8	2	5	1	1	9								6	7		3	2	1		3		1	10	infantis		
java												4	4	1	5			6			1					1	2		1				1	1	3	java			
javiana																		1															2	4	6	javiana			
kentucky												2	2						2								2										kentucky		
litchfield														2		4		6																	1		litchfield		
livingstone																																				1		livingstone	
manhattan								1			2	3	1	4	4		9	1	1	1						3				1	3	1		5	manhattan				
meleagridis																																				2	2	meleagridis	
miami																																			1	1	miami		
mississippi									1	1		2								2						2										1	1	mississippi	
montevideo																																					1	montevideo	
muenchen												1	3	1			4		1							1		1							8	10	muenchen		
newington													9	15	1	5		2	8	1															3	3	newington		
newport													1	2	2			2																		1	1	newport	
oranienburg				1		1		1	5	1	1	2	2																							3	3	oranienburg	
panama				1		1																															1	panama	
paratyphi B				1		1		3				3			2		2																			3	paratyphi B		
poona									1			1																								1	1	poona	
saint-paul					2	2		1	1	1	8	10			6	2		8	2		1					1	4	2	2		2			1	36	1	43	saint-paul	
san-diego					1	1						1	1		1																						1	san-diego	
schwarzengrund															2																						2	schwarzengrund	
senftenberg																																						senftenberg	
tennessee				7		7		1	1			2			1	1		2																		1	8	tennessee	
thompson				3		3						3	4					2																		1	3	thompson	
typhi	1							1	1	2		1	5	2	3		1	8								1	2		2	3		1	1		1	3	typhi		
typhi-murium	1		1	40	12	54		1	11	20	31	63	21	2	56	13	9	101	2	1	6					4	13		6	4	12	6	1	15	8	52	typhi-murium		
typhi-murium v cop				13	2	15						3	3			15		15																				typhi-murium v cop	
urbana																																						urbana	
weltevreden																																						weltevreden	
worthington																																						worthington	
untypable, group B	2			1		3			1	1		2																								1	8	untypable, group B	
untypable, group C1																																					1	untypable, group C1	
untypable, group C2																																					1	untypable, group C2	
untypable, group D																																					1	untypable, group D	
untypable, group E																																					1	untypable, group E	
untypable or unknown																																					1	untypable or unknown	
Total Common	3	2	1	103	1	21	131	2	29	46	8	85	170	56	8	106	63	31	264	13	5	12	0	0	0	16	46	8	27	15	21	1	23	3	65	46	207	Total Common	
Total Other	0	0	0	4	0	4	0	1	2	1	0	4	0	0	1	2	0	3	3	0	0	0	0	0	0	3	0	0	0	0	2	0	1	5	8	Total Other			
Grand Total	3	2	1	107	1	25	135	2	30	48	9	85	174	56	8	107	65	31	267	16	5	12	0	0	0	16	49	8	27	15	21	1	23	3	66	51	215	Grand Total	

(New York, A-Albany, BI-Beth Israel, C-City)

*The Beth Israel Salmonella Typing Center in New York is a reference laboratory and processes many cultures from other states which are assigned to the respective states although reported by NY-BI. Beth-Israel reported a total of 101 isolations for January.

TABLE 1 (Continued)
COMMON SALMONELLA SEROTYPES ISOLATED FROM HUMANS IN THE UNITED STATES DURING JANUARY, 1967

SEROTYPE	GEOGRAPHIC DIVISION AND REPORTING CENTER																							JAN. TOTAL	% OF JAN. TOTAL	1966 JAN. TOTAL	% OF 1966 JAN. TOTAL	SEROTYPE				
	EAST SOUTH CENTRAL					WEST SOUTH CENTRAL					MOUNTAIN							PACIFIC											OTHER			
	KY	TENN	ALA	MISS	TOT	ARK	LA	OKLA	TEX	TOT	MONT	IDA	WYO	COLO	NM	ARI	UTAH	NEV	TOT	WASH	ORE	CAL	ALAS						HAI	TOT	VI	
anatum			1		1	4			4					1				1						9	9		29	2.0	33	2.2	anatum	
bareilly						1		1	2															1	1		5	0.3	4	0.3	bareilly	
berta						1			1																		3	0.2	3	0.2	berta	
blockley						2		2	4												1	1					33	2.3	23	1.5	blockley	
braenderup						1			1																		4	0.3	15	1.0	braenderup	
bredeney									1	1																	12	0.8	11	0.7	bredeney	
chester	1		3		4																1	2					12	0.8	9	0.6	chester	
cholerae-suis v kun																											0	0.0	4	0.3	cholerae-suis v kun	
cubana									2																		4	0.3	7	0.5	cubana	
derby						2			2						1				1								33	2.3	35	2.3	derby	
enteritidis									1	1																	44	3.1	123	8.0	enteritidis	
give									2																		4	0.3	7	0.5	give	
heidelberg		2			2	1	6		1	8				1		5	3				2						117	8.2	104	6.8	heidelberg	
indiana			1		1																						9	0.6	9	0.6	indiana	
infantis	1				1		9	1	4	14				2		1											62	4.3	117	7.6	infantis	
java		1			1		3			3																	23	1.6	14	0.9	java	
javiana					3				4	4																	15	1.0	11	0.7	javiana	
kentucky																											4	0.3	0	0.0	kentucky	
litchfield																											8	0.6	5	0.3	litchfield	
livingstone																						1		1	2		3	0.2	4	0.3	livingstone	
manhattan															1				1		3			8	12		33	2.3	9	0.6	manhattan	
meleagridis																											0	0.0	1	0.07	meleagridis	
miami																											2	0.1	1	0.07	miami	
mississippi							5		1	6																	7	0.5	5	0.3	mississippi	
montevideo							1			1														1	1		6	0.4	22	1.4	montevideo	
muenchen							1		1	2																	9	0.6	16	1.0	muenchen	
newington																											3	0.2	2	0.1	newington	
newport			1		1	5	12		15	32						2			2	1	14						82	5.7	82	5.4	newport	
oranienburg									3	3											1	2					15	1.0	27	1.8	oranienburg	
panama									1	1			1														1	0.1	5	0.3	panama	
paratyphi B									1	1																		11	0.8	14	0.9	paratyphi B
poona							1		1	2																	6	0.4	2	0.1	poona	
saint-paul		1	1		2				1	1				1													86	6.0	47	3.1	saint-paul	
san-diego									1	1																	10	0.7	7	0.5	san-diego	
schwarzengrund									1	1																	7	0.5	6	0.4	schwarzengrund	
senftenberg							1		1	2																	4	0.3	6	0.4	senftenberg	
tennessee							1		1	1																	14	1.0	8	0.5	tennessee	
thompson							2		2	2																	25	1.7	68	4.4	thompson	
typhi		2	2	1	3	3	6	1	10					1								1	4				41	2.9	57	3.7	typhi	
typhi-murium	2	2	1	1	6	13	5	13	31		6	5		13	7	2					10		1	57			436	30.2	485	31.7	typhi-murium	
typhi-murium v cop							4		4																		37	2.6	7	0.5	typhi-murium v cop	
urbana																											0	0.0	3	0.2	urbana	
weltevreden																											3	0.2	1	0.07	weltevreden	
worthington																											2	0.1	2	0.1	worthington	
untypable, group B						1			1	10				12													37	2.6	26	1.7	untypable, group B	
untypable, group C1														46													48	3.3	9	0.6	untypable, group C1	
untypable, group C2																											1	0.07	4	0.3	untypable, group C2	
untypable, group D								2	2					3													6	0.4	4	0.3	untypable, group D	
untypable, group E								2	2																		0	0.0	0	0.0	untypable, group E	
untypable or unknown								2	2												4	1					11	0.8	5	0.3	untypable or unknown	
Total Common	4	8	9	4	25	10	80	7	58	155	16	5	0	19	62	18	6	0	126	17	13	145	1	91	267	1,391	96.9	1,476	96.4	Total Common		
Total Other	1	1	0	0	2	0	5	0	1	6	0	4	0	2	0	2	0	0	8	0	0	3	0	3	6		44	3.1	55	3.6	Total Other	
Grand Total	5	9	9	4	27	10	85	7	59	161	16	9	0	21	62	20	6	0	134	17	13	148	1	94	273	1,435		1,531		Grand Total		

TABLE II
OTHER SALMONELLA SEROTYPES ISOLATED FROM HUMANS DURING JANUARY, 1967

SEROTYPE	REPORTING CENTER																			JAN. 1967 TOTAL	SEROTYPE
	ARI	CALIF	COLO	FLA	GA	HAI	IDA	ILL	KY	LA	MASS	MICH	MINN	NJ	NY-BI*	NY-C*	NC	TENN	TEX		
alachua										4	1									5	alachua
amager																1				1	amager
binza										1										1	binza
california			2							1										3	california
claibornei														1						1	claibornei
durham												1								1	durham
eastbourne	1																			1	eastbourne
eimsbuettel																	1			1	eimsbuettel
fayed																	1			1	fayed
frintrop								1												1	frintrop
gaminara	1																			1	gaminara
glostrup												1								1	glostrup
habana				3																3	habana
hartford						1														1	hartford
inverness										1										1	inverness
johannesburg													1							1	johannesburg
london						1														1	london
memphis				1																1	memphis
minnesota		1			1															2	minnesota
muenster				1																1	muenster
norwich										2								1		3	norwich
oslo						1														1	oslo
reading		1					4		1					1						7	reading
siegburg											1									1	siegburg
thomasville		1														1				2	thomasville
untypable group H																			1	1	untypable group H
TOTAL	2	3	2	5	1	3	4	1	1	5	4	2	3	1	1	2	2	1	1	44	TOTAL

*(NY-BI = New York-Beth Israel, NY-C = New York - City)

TABLE III

Age and Sex Distribution of Individuals Reported as Harboring Salmonellae
During January 1967

<u>Age (Years)</u>	<u>Male</u>	<u>Female</u>	<u>Unknown</u>	<u>Total</u>	<u>Percent</u>	<u>Cumulative Percent</u>
< 1	118	116	2	236	22.7	22.7
1 - 4	124	112	2	238	22.9	45.6
5 - 9	66	39	1	106	10.2	55.8
10 - 19	51	50		101	9.7	65.5
20 - 29	30	48	1	79	7.6	73.1
30 - 39	31	46		77	7.4	80.5
40 - 49	26	42		68	6.5	87.0
50 - 59	19	30		49	4.7	91.7
60 - 69	24	18		42	4.0	95.7
70 - 79	13	14		27	2.6	98.3
80 +	<u>8</u>	<u>10</u>	<u>—</u>	<u>18</u>	1.7	100.0
Subtotal	510	525	6	1041		
Child (Unspec.)	9	8	1	18		
Adult (Unspec.)	8	7		15		
Unknown	<u>172</u>	<u>164</u>	<u>25</u>	<u>361</u>		
Total	699	704	32	1435		
Percent of Total	49.8	50.2				

