REPORT NO. 62

CDC

NATIONAL
COMMUNICABLE DISEASE CENTER

SALMONELLA

SURVEILLANCE

CONTENTS. . .

FOR THE MONTH OF MAY

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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July 27, 1967

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I. SUMMARY

In May 1967, 1,788 isolations of salmonellae were reported from humans, an average of 358 isolations per week (Tables I and II). This number represents an increase of 44 (14.0 percent) over the weekly average of April 1967 and is identical to the weekly average of May 1966.

Reports of 553 nonhuman isolations of salmonellae were received during May, a decrease of 106 (16.1 percent) from April 1967 (Tables IV, V, and VI).

II. REPORTS OF ISOLATIONS FROM THE STATES

A. HUMAN

The seven most frequently reported serotypes during May were:

Rank	Serotype	Number	Percent	Rank Last Month
1	S. typhi-murium and S. typhi-murium var. copenhagen	602	33.7	1
2	S. heidelberg	121	6.8	2
3	S. enteritidis	101	5.6	3
4	S. infantis	89	5.0	5
4	S. newport	89	5.0	7
6	S. montevideo	70	3.9	Not listed
7	S. san-diego	58	3.2	Not listed
	Total	1130	63.2	
	Total (all serotypes)	1788		

The age and sex distribution is shown in Table III.

B. NONHUMAN

Twenty-nine states reported nonhuman isolations of salmonellae, in which 55 different serotypes were represented.

The seven most frequently reported serotypes during May were:

Rank	Serotype	Predominant Source and Number	Number	Percent	Rank Last Month
1	S. typhi-murium and S. typhi-murium var. copenhagen	cattle (31) and water (10)	101	18.3	2
2	S. heidelberg	turkeys (21)	39	7.1	3
3	S. montevideo	bone meal/meat scraps (9)	29	5.2	Not listed
4	S. senftenberg	bone meal/meat scraps (7) and coconut (7)	27	4.9	5
4	S. thompson	muffin mix (21)	27	4.9	Not listed
6	S. anatum	turkeys (5) and swine (5)	25	4.5	4
6	S. infantis	bone meal/meat scraps (5) and powdered eggs (5)	25	4.5	7
	Total		273	49.4	
	Total (all serotypes)		553		

The most prominent nonhuman sources of salmonellae reported during May were turkeys, 93 (16.8 percent); cattle, 54 (9.8 percent); chickens, 54 (9.8 percent); bone meal and meat scraps, 47 (8.5 percent); and dry milk, 43 (7.8 percent).

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 Food and Feed Surveillance Program

During April a total of 110 feed ingredient samples were received from Virginia, North Carolina, Florida, Washington, Illinois, Louisiana, and New Mexico, and examined for the presence of salmonellae. Types and numbers of samples examined were meat meal (16), soybean oil meal (11), corn (14), cottonseed meal (10), oats (10), wheat bran (8), fish meal (8), poultry by-product meal (4), feather meal (6), gluten meal (3), citrus pulp (2), peanut meal (1), cracked corn and wheat (2), brewer's grain (1), hominy feed and corn germ meal (1), dicalcium phosphate (1), shell urea (1), alfalfa meal (1), flaxseed (1), and mixed feed (9). A total of 9 of the 16 meat meal samples were positive. Two of these 9 samples contained multiple serotypes (S. eimsbuettel and S. alachua - 1 sample; S. cubana and S. muenster - 1 sample). Serotypes recovered from the remaining samples included S. typhi-murium, S. senftenberg, S. anatum, S. canoga, S. eimsbuettel, and S. montevideo. Two of the 8 samples of fish meal were positive for salmonellae. Salmonella eimsbuettel was recovered from 1 and S. derby from the other. Salmonella california was isolated from 1 of the 11 samples of soybean oil meal and S. schwarzengrund and S. tennessee from another sample.

In addition, during March and April the following samples from Washington State were examined: fish meal (3), linseed meal (1), fish solubles (1), mixed feeds (25), and powdered eggs (6). All were negative for salmonellae.

TABLE I

COMMON SALMONELLA SEROTYPES ISOLATED FROM HUMANS IN THE UNITED STATES DURING MAY, 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												1	1	1			2		3											1				1	2	4	anatum
bareilly																1		2	3	2							2				1					1	bareilly
berta																1		1	2																1	1	berta
blockley				12		3	15		1	1	1		3			6	1		7											1				4	4	9	blockley
braenderup	1					2	3		1	1	1		3	1					1									1								1	braenderup
bredeney				1			1			1			1							1							1										bredeney
chester												1	1			1			1																		chester
cholerae-suis v kun					1		1																														cholerae-suis v kun
cubana									1				1	4				2	6											1					1	2	cubana
derby			1	1			2		2	1		4	7		1	1	4	3	9			1					1	1	4					1	1	7	derby
enteritidis				5		2	7		3	7	2	11	23	9	3	9	2	4	27	3							3		8		5		1	7	4	25	enteritidis
give																2			2														1			1	give
heidelberg	1			3		1	5		1	5	2	8	16	10	1	5	3	1	20	4		1					5		4		1		17	4	3	29	heidelberg
indiana				1			1		1			2	3																								indiana
infantis						1	1		2	2		24	28			4	3	3	10	1	2					6	9				3		3	1	1	8	infantis
java				1		1	2					2	2	1		6		1	8													1			4	5	java
javiana														5		2			7				2				2							2	2	javiana
kentucky											2		2																								kentucky
litchfield												1	1			1		1	2											3					1	4	litchfield
livingstone																		1	1			1					1										livingstone
manhattan				1		1	2					2	2			1	2		3			3					3		1						2	3	manhattan
meleagridis																																			1	1	meleagridis
miami										2			2																						3	3	miami
mississippi																																		1		1	mississippi
montevideo				1		1	2		1	27			28	5		16			21	1	1	1					3				1		1	1	5	8	montevideo
muenchen	1			3			4					1	1		1		1		2			2		1		5	8								1	1	muenchen
newington				1			1				1	3	4																1					1	1	3	newington
newport				2		2	4		1	2	2	8	13	2		2	5		9															2	19	21	newport
oranienburg						1	1			2		1	3	3	1	1	1	3	9	2		2				1	5							1	8	9	oranienburg
panama			1	2		1	4									1			1	1		2					3			1						1	panama
paratyphi B																	2		2										1							1	paratyphi B
poona																							1				1										poona
saint-paul				2			2		1		1	3	5	1	1	8	3	4	17	1			1				2		2		1			5	1	9	saint-paul
san-diego				37		2	39			1		1	2			1	2		3			1					1										san-diego
schwarzengrund				1			1																														schwarzengrund
senftenberg				1			1				1		1																					1	1	2	senftenberg
tennessee											1		1	1					1																		tennessee
thompson				2		1	3		2	2	1	2	7	4		2			6				1	1		2		1		2				2	2	7	thompson
typhi	1			1			2			1		3	4	3	2		1	2	8			2					2		2	1		2	7		1	13	typhi
typhi-murium	14		1	107	7	18	147	1	30	35	6	43	115	9	6	26	11	19	71	6	3	17				1	27		12		7		16		11	23	69	typhi-murium
typhi-murium v cop				7		2	9				6	6	12				3		3																		typhi-murium v cop
urbana									1		1		2			1			1												3			1		4	urbana
weltevreden																																					weltevreden
worthington																1			1																		worthington
untypable, group B		5		1	1	1	8									1			1											2						2	untypable, group B
untypable, group C1																														1						1	untypable, group C1
untypable, group C2															1				1											1						1	untypable, group C2
untypable, group D																														2						2	untypable, group D
untypable, group E																																					untypable, group E
untypable or unknown																1		4	5				1				1			1				1		2	untypable or unknown
TOTAL COMMON	18	5	3	193	8	41	268	1	48	92	26	127	294	59	17	101	46	51	274	22	6	33	4	4	0	13	82	1	37	9	27	5	47	0	45	92	263	TOTAL COMMON
TOTAL OTHER	0	0	0	0	0	1	1	0	5	1	0	4	10	2	0	1	2	2	7	2	0	1	0	0	1	0	4	0	0	0	0	0	1	0	2	7	10	TOTAL OTHER
GRAND TOTAL	18	5	3	193	8	42	269	1	53	93	26	131	304	61	17	102	48	53	281	24	6	34	4	4	1	13	86	1	37	9	27	5	48	0	47	99	273	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 125 isolations for May.

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

SEROTYPE	GEOGRAPHIC DIVISION AND REPORTING CENTER																								OTHER	MAY TOTAL	% of MAY TOTAL	1967 JAN-MAY TOTAL	% of 1967 JAN-MAY TOTAL	1966 JAN-MAY TOTAL	% of 1966 JAN-MAY TOTAL	SEROTYPE
	EAST SOUTH CENTRAL					WEST SOUTH CENTRAL					MOUNTAIN										PACIFIC											
	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												35		5	40		49	2.7	127	1.8	117	1.7	anatum
bareilly							1			1												1			1		8	0.4	22	0.3	15	0.2	bareilly
berta																1	1		2								5	0.3	16	0.2	16	0.2	berta
blockley			1		1	2	6		1	9	1								1	4	1	3		1	9		54	3.0	232	3.3	184	2.7	blockley
braenderup									1	1																	9	0.5	34	0.5	40	0.6	braenderup
bredeney																1			1								4	0.2	45	0.6	44	0.7	bredeny
chester																											2	0.1	36	0.5	44	0.7	chester
cholerae-suis v kun																						1			1		2	0.1	8	0.1	13	0.2	cholerae-suis v kun
cubana																											9	0.5	33	0.5	75	1.1	cubana
derby							1			1												3		3	6		33	1.8	140	2.0	135	2.0	derby
enteritidis		1			1	1			1	2				1	6				7			6			6		101	5.6	375	5.3	464	6.9	enteritidis
give							2			2																	5	0.3	28	0.4	29	0.4	give
heidelberg		2	1		3	4	3			7				1	2		6		9	2	4	21			27		121	6.8	622	8.8	550	8.1	heidelberg
indiana									1	1																	5	0.3	22	0.3	27	0.4	indiana
infantis		2			2		5	1		6				2			1		3	1	1	12		8	22		89	4.9	356	5.0	595	8.8	infantis
java							3			3												2			2		22	1.2	118	1.7	65	1.0	java
javiana		1			1	1	5		4	10																	22	1.2	87	1.2	61	1.0	javiana
kentucky							3			3												1			1		6	0.3	16	0.2	5	0.1	kentucky
litchfield																											7	0.4	28	0.4	23	0.3	litchfield
livingstone																						2		3	5		7	0.4	30	0.4	10	0.2	livingstone
manhattan		1			1		1		1	2														2	2		18	1.0	120	1.7	37	0.6	manhattan
meleagridis																											1	0.06	4	0.06	4	0.1	meleagridis
miami			1		1																						6	0.3	14	0.2	21	0.3	miami
mississippi							3			3																	4	0.2	18	0.3	13	0.2	mississippi
montevideo			1		1				3	3				1					1			3			3		70	3.9	145	2.1	121	1.8	montevideo
muenchen									2	2	1								1			5			5		24	1.3	83	1.2	68	1.0	muenchen
newington																						1		1	2		10	0.6	23	0.3	11	0.2	newington
newport	1	2			3	1	11		7	19		4				2			6	1		10		3	14		89	5.0	344	4.9	392	5.8	newport
oranienburg									10	10				1		1			2	8		4			12		51	2.9	151	2.1	185	2.8	oranienburg
panama									1	1						1			1					2	2		13	0.7	75	1.1	88	1.3	panama
paratyphi B														1					1								4	0.2	32	0.5	56	0.8	paratyphi B
poona																						2			2		3	0.2	18	0.3	16	0.2	poona
saint-paul		1			1		2			2	2			1			1		4	5		6		2	13		55	3.1	262	3.7	236	3.5	saint-paul
san-diego														1			2		3	6	1	3			10		58	3.2	91	1.3	39	0.6	san-diego
schwarzengrund																											1	0.06	33	0.5	20	0.3	schwarzengrund
senftenberg																						1		1	2		6	0.3	20	0.3	20	0.3	senftenberg
tennessee																				1					1		3	0.2	31	0.4	50	0.7	tennessee
thompson			1		1																1	1		1	3		29	1.6	131	1.9	202	3.0	thompson
typhi	2		4		6	2	3	1		6					2				2	1		12			13		56	3.1	266	3.8	244	3.6	typhi
typhi-murium	1	7	4		12	4	15	2	12	33	1	1		21	8	2			33	22	3	31		8	64		571	32.0	2,124	30.0	1,876	27.8	typhi-murium
typhi-murium v cop		5			5		1			1	1								1								31	1.7	106	1.5	58	0.9	typhi-murium v cop
urbana																						1			1		8	0.4	12	0.2	8	0.1	urbana
weltevreden																								7	7		7	0.4	33	0.5	9	0.1	weltevreden
worthington																											1	0.06	11	0.2	21	0.3	worthington
untypable, group B				3	3			2		2					8				8		2				2		26	1.5	124	1.8	131	1.9	untypable, group B
untypable, group C1															6				6								7	0.4	93	1.3	44	0.6	untypable, group C1
untypable, group C2	1			1	2	1		1		2					1				1								7	0.4	16	0.2	13	0.2	untypable, group C2
untypable, group D																											2	0.1	20	0.3	15	0.2	untypable, group D
untypable, group E				2	2																						2	0.1	8	0.1	6	0.1	untypable, group E
untypable or unknown									2	2												1			1		11	0.6	61	0.9	37	0.5	untypable or unknown
TOTAL COMMON	5	22	13	6	46	16	66	7	46	135	6	5	0	30	33	8	11	0	93	51	13	168	0	47	279		1,734	97.0	6,844	96.8	6,553	97.1	TOTAL COMMON
TOTAL OTHER	1	2	2	0	5	1	4	0	3	8	0	0	0	0	2	0	0	0	2	1	0	6	0	0	7		54	3.0	230	3.2	198	2.9	TOTAL OTHER
GRAND TOTAL	6	24	15	6	51	17	70	7	49	143	6	5	0	30	35	8	11	0	95	52	13	174	0	47	286		1,788		7,074		6,751		GRAND TOTAL

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

SERTOYPE	REPORTING CENTER																						TOTAL	5 month TOTAL	SEROTYPE
	ALA	ARK	CAL	CONN	FLA	GA	ILL	KY	LA	MICH	MINN	MO	NEB	NM	NY-BI	NY-C	NC	OHIO	PA	TENN	TEX	WASH	WISC			
abortus-bovis						1																		1	2	abortus-bovis
adelaide			1																					1	2	adelaide
alachua																				1				1	7	alachua
atlanta						1																		1	3	atlanta
belem																							2	2	2	belem
berlin																			2					2	4	berlin
dublin			1																					1	2	dublin
duisburg																		1						1	1	duisburg
durham							1				1													2	8	durham
eimsbuettel					3												1							4	13	eimsbuettel
garoli																					1			1	1	garoli
hartford										1										1				2	8	hartford
habana					2																			2	10	habana
johannesburg														2	4									6	8	johannesburg
loma-linda			1																					1	2	loma-linda
madelia					2																			2	3	madelia
manchester								1																1	1	manchester
minnesota										1														1	7	minnesota
mission																		1	1					2	8	mission
norwich									2															2	8	norwich
ohio															1									1	2	ohio
oslo			1									1												2	8	oslo
paratyphi-A	1		1																			1		3	4	paratyphi-A
reading				1									1						1		1			4	23	reading
rubislaw		1							1															2	3	rubislaw
saphra																					1			1	10	saphra
siegburg	1								1															2	3	siegburg
stanley																1								1	3	stanley
virchow			1																					1	1	virchow
untypable, group O											1													1	1	untypable, group O
TOTAL	2	1	6	1	7	2	1	1	4	2	2	1	1	2	5	1	1	2	4	2	3	1	2	54	230	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 May 1967

Age (Years)	Male	Female	Unknown	Total	Percent	Cumulative Percent
< 1	104	86	3	193	15.8	15.8
1 - 4	169	132	1	302	24.7	40.5
5 - 9	95	76	1	172	14.1	54.6
10 - 19	78	57	1	136	11.1	65.7
20 - 29	32	71	1	104	8.5	74.2
30 - 39	33	46		79	6.5	80.7
40 - 49	31	38		69	5.6	86.3
50 - 59	23	32		55	4.5	90.8
60 - 69	34	24		58	4.7	95.5
70 - 79	7	23		30	2.5	98.0
80 +	9	16		25	2.0	100.0
Subtotal	615	601	7	1223		
Child (Unspec.)	5	5	4	14		
Adult (Unspec.)	6	9		15		
Unknown	266	236	34	536		
Total	892	851	45	1788		
Percent of Total	51.2	48.8				

TABLE IV
REPORTED NONHUMAN ISOLATES BY SEROTYPE AND SOURCE, *MAY, 1967

SEROTYPE	chicken	turkey	duck	pigeon	avian	equine	bovine	porcine	goat	canine	feline	alimentary	guinea pig	rabbit	fox	tiger	bear	powdered egg	frozen egg	egg products	raw chicken	raw turkey	beef	cracklings	pork liver	meat, unknown	muffin mix	chocolate candy	baby formula	dry milk	macaroni w/eggs	coconut	creme pie	coconut	dessert, unspecified	poultry feed, unknown	pet food, unknown	feather meal	mice feed, unknown	bone meal/ meat scraps	animal feed, unknown	horse meat	turtle	snake	lizard	water	hay water	turtle water	crusher	environmental swab	milk plat environment	rendering plant environment	thyroid powder	carmine dye	unknown	Total	5 months Total	SEROTYPE
alachua							1																						1																										5	82	alachua
anatum	1	5				1	3	5																					3									3		1										1			2	25	223	anatum
barielly																		2																																					2	1		6	18	barielly
berlin																																																								1	1	berlin
binza		3						1																					1											1	3										2					11	97	binza
blockley	4	2																2									1																												8	39	blockley
braenderup																																			1																					2	32	braenderup
bredeney																																					3											3	1	1					8	84	bredeney
california	1	1																																																						1	3	6	california
cerro																																																								1	1	34	cerro
chester		8																																																						9	27	chester
cholerae-suis v kun						1		1																																																	2	25	cholerae-suis v kun
cubana																																																								7	145	cubana
derby		2						2	1																																	1	1															8	326	derby
drypool																																					1						5	1														7	17	drypool
dublin							1																																																		2	2	dublin
eimsbuettel																										3									3																				13	94	eimsbuettel
enteritidis	1	2																						1																							1										6	29	enteritidis
gallinarum																			3																																						3	5	gallinarum
gatow																				1																																					1	5	gatow
give		1																																									1														3	28	give
heidelberg	8	21			1		2													3		1							1									1																		39	243	heidelberg
indiana	4																																1																						4	7	indiana
infantis	2	2			1	1	1	1											5	3	1								1		1									5															25	185	infantis
java								1																																			1	2												4	8	java
johannesburg																																											2		1												3	4	johannesburg
kentucky	1							1																																			4														6	36	kentucky
lexington							1																																				1														1	11	lexington
litchfield	1																																										1														1	3	litchfield
livingstone			1																																		2	1					2														7	39	livingstone
manhattan	1	2							1																																																4	14	manhattan
minneapolis																													12																											12	21	minneapolis
minnesota							6																																				1	1													3	11	22	minnesota
mission																																												1														1	1	mission
montevideo	1						1							1	1		3					1				1			1													9	4											1		3		2	29	126	montevideo
muenchen		2	1						1																																															6		10	54	muenchen
newington																											2		18																												20	96	newington
newport	1	2					4		1																																														9	75	newport
oranienburg																			2							2															1													1	2		2	10	96	oranienburg
orion																													2														1														3	9	orion
pullorum	6				5																																																			11	23	pullorum
saint-paul	5	10					2	2																	1																																21	189	saint-paul
san-diego	3																																																							6	39	san-diego
schwarzengrund		5								1																																															1	7	71	schwarzengrund
senftenberg	2	6					1																			4			7												7															27	110	senftenberg
tennessee		3																											2																												5	81	tennessee
thomasville																																											1													1	2	7	thomasville
thompson	2	4																								21																															27	81	thompson
typhi-murium	9	5	1	1		7	31	2		2	1	1	4		1		3					1			3				1						1									10		1				1				2	88	391	typhi-murium
typhi-murium v cop		3		2		1		2	1	1			2																						1																					13	82	typhi-murium v cop
typhi-suis								1																																																1	6	typhi-suis
urbana																																										1														2	8	urbana
westhampton		2																																																						2	13	westhampton
worthington		1							1																																														6	73	worthington
zanzibar																																																								1	1	zanzibar
untypable group B																																																								1	5	untypable group B
untypable group C1	1																																																						1	27	untypable group C1
untypable group D		1																																																					1	1	untypable group D
untypable group O																																										1														1	2	untypable group O
TOTAL	54	93	3	3	7	11	54	19	1	7	2	2	4	2	2	1	3	12	3	9	2	1	1	3	1	9	23	2	1	43	1	1	1	13	3	2	2	2	1	3	47	20	1	4	2	1	12	4	4	2	2	11	19	9	2	9	553	3,844	TOTAL

Source: National Disease Laboratory, Ames, Iowa, weekly Salmonella Reports from individual states and US-FDA-Div of Microbiology, Washington, D. C.

*Includes April late reports.

TABLE V

REPORTED NONHUMAN ISOLATES BY SEROTYPE AND STATE, *MAY 1967

Serotype	ARIZ	ARK	CAL	CONN	DC	FLA	HAI	ILL	IND	IOWA	KAN	LA	MD	MASS	MICH	MINN	MO	NJ	NYA	NC	ND	OHIO	OKLA	PA	TENN	TEX	VA	WASH	WISC	TOTAL	5 MOS. TOTAL	Serotype
alachua			1						2							2														5	82	alachua
anatum	3		1			2	5	1							3	2						4					4			25	223	anatum
barielly										3							2		1											6	18	barielly
berlin																								1						1	1	berlin
binza			1					4	1	1												2					2			11	97	binza
blockley			3						1				1				2										1			8	39	blockley
braenderup			1										1																	2	32	braenderup
bredeney			3								1					4														8	84	bredeney
california			1							2																				3	6	california
cerro										1																				1	34	cerro
chester			1						1							1								1			1		4	9	27	chester
cholerae-suis v. kunzendorf			1						1																					2	25	cholerae-suis v. kunzendorf
cubana					1			2	1	1												1						1		7	145	cubana
derby			3				2	1		1												1								8	326	derby
drypool															3	2						1			1					7	17	drypool
dublin			1															1												2	2	dublin
eimsbuettel					2	3			1	4						3														13	94	eimsbuettel
enteritidis			1						2							2						1								6	29	enteritidis
gallinarum																								3						3	5	gallinarum
gatow											1																			1	5	gatow
give			1					1																				1		3	28	give
heidelberg	3		6					1	2		4					12	2	6		1		1					1			39	243	heidelberg
indiana									4																					4	7	indiana
infantis			5		1			4			3					4	7											1		25	185	infantis
java							1				2											1								4	8	java
johannesburg																3														3	4	johannesburg
kentucky	1						1	1	1							1								1						6	36	kentucky
lexington	1																													1	11	lexington
litchfield																											1			1	3	litchfield
livingstone			1												2							2		1	1					7	39	livingstone
manhattan			1						1						1	1														4	14	manhattan
minneapolis																						12								12	21	minneapolis
minnesota	6									4						1														11	22	minnesota
mission																						1								1	1	mission
montevideo	2		2			2		8	1	4		2			2		3					1	1	1						29	126	montevideo
muenchen			1														2		6					1						10	54	muenchen
newington								2							16									2						20	96	newington
newport	3		1							1		1				1	1							1						9	75	newport
oranienburg						4		2		2	2																			10	96	oranienburg
orion								2								1														3	9	orion
pullorum																1					1	5	4							11	23	pullorum
saint-paul	2		1				2			1	1						2					1					1		10	21	189	saint-paul
san-diego			3											1	1													1		6	39	san-diego
schwarzengrund			6																										1	7	71	schwarzengrund
senftenberg			4		3	4		2	2						2	8	1							1						27	110	senftenberg
tennessee													2			3														5	81	tennessee
thomasville								1		1																				2	7	thomasville
thompson			21					2									2										2			27	81	thompson
typhi-murium	18		23	1		2	2	2	5		1				15		2							1		1	1	11	3	88	391	typhi-murium
typhi-murium v.copenhagen				1							1				6	2	3													13	82	typhi-murium v.copenhagen
typhi-suis																1														1	6	typhi-suis
urbana								1																1						2	8	urbana
westhampton																2														2	13	westhampton
worthington			1					1		1		1					1							1						6	73	worthington
zanzibar																		1												1	1	zanzibar
untypable group B										1																				1	5	untypable group B
untypable group C1															1															1	27	untypable group C1
untypable group D		1																												1	1	untypable group D
untypable group O																1														1	2	untypable group O
TOTAL	39	1	95	2	7	17	13	35	29	28	15	5	2	3	52	58	30	7	8	1	1	34	5	16	2	1	14	15	18	553	3844	TOTAL

Source: National Disease Laboratory, Ames, Iowa, weekly Salmonella Reports from individual states and US-FDA-Div. of Microbiology, Washington D. C.

*Includes April late reports.

(NYA - New York - Albany)

TABLE VI
OTHER SEROTYPES REPORTED DURING 1967
FROM NONHUMAN SOURCES

SEROTYPE	MONTH(S)	REPORTING CENTER(S)	NUMBER OF ISOLATIONS
albany	Jan	Ky(2)	
	Feb	Ill(1)	
	Feb-Mar	Miss(15)	
	Mar	Ark(1)	
	Mar	Ohio(2)	21
amager	Mar	Ill	4
arkansas	Mar	La	1
berta	Jan	Ill(1)	
	Feb	Ariz(1)	2
canoga	Apr	Ind	1
carrau	Jan	La	1
champaign	Feb	Minn	1
cholerae-suis	Jan	Cal(1)	
	Jan	Ohio(1)	
	Mar	Va(1)	3
corvallis	Jan-Feb	La	3
duesseldorf	Mar	Ohio(8)	
	Apr	Mich(1)	9
eastbourne	Jan	Minn	1
gaminara	Apr	Cal(1)	
	Apr	Neb(1)	2
grumpensis	Jan	La	2
habana	Apr	Fla	2
hartford	Jan	Hai	1
illinois	Apr	Minn	1
irumu	Apr	Hai	1
javiana	Jan-Feb	La(7)	
	Jan	Mo(1)	8
meleagridis	Jan-Mar	Ind(2)	
	Jan-Feb-Mar	La(3)	
	Feb	Hai(1)	
	Feb-Mar-Apr	Mo(4)	
	Mar	Cal(1)	
	Mar	DC(3)	
	Apr	Ark(1)	
	Apr	Ill(1)	
	Apr	Minn(1)	17
miami	Apr	Fla	1
mississippi	Feb	La	2
mokola	Feb	La	1
muenster	Jan	Ark(2)	
	Jan-Feb	La(4)	6
new-haw	Feb	Iowa(1)	
	Apr	Ill(1)	2
okerara	Feb	La	1

TABLE VI
OTHER SEROTYPES REPORTED DURING 1967
FROM NONHUMAN SOURCES - CONTD.

SEROTYPE	MONTH(S)	REPORTING CENTER(S)	NUMBER OF ISOLATIONS
oslo	Feb	Fla	2
panama	Jan-Feb-Mar-Apr	Ark(40)	
	Feb	DC(1)	
	Mar	Mo(1)	42
pomona	Jan	La	1
poona	Jan	Fla(4)	
	Jan	Ill(1)	
	Jan	Neb(3)	
	Feb	Mo(1)	
	Apr	Mich(1)	
	Apr	Neb(4)	14
reading	Jan-Feb-Mar	Cal(30)	
	Jan	Iowa(3)	
	Jan-Mar-Apr	Minn(9)	
	Jan	Ore(2)	
	Jan	Tex(1)	
	Jan-Apr	Wisc(2)	
	Mar	Ill(1)	48
redlands	Feb	La	1
rubislaw	Jan-Feb-Mar	La(3)	
	Apr	Kan(10)	
	Apr	Tex(1)	14
shubra	Feb	La	1
siegburg	Jan-Apr	Ill(7)	
	Jan	Minn(1)	
	Jan	Ohio(5)	
	Feb-Apr	Ind(2)	
	Feb	La(1)	
	Feb	Mo(1)	
	Feb-Mar	Utah(4)	
	Mar	Mich(1)	22
simsbury	Mar	Mo(1)	
	Apr	Kan(2)	3
stanley	Apr	La	1
taksony	Jan-Feb	Utah	2
tucson	Feb	Cal	1
tuindorp	Feb	Ill(1)	
	Apr	Cal(1)	2
vejle	Feb	La	1
wichita	Feb	Utah	1
TOTAL			250

Figure 1

REPORTED HUMAN ISOLATIONS OF SALMONELLAE
IN THE UNITED STATES