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# SALMONELLA

## SURVEILLANCE

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FOR THE MONTH OF NOVEMBER 1967

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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 November 1967, 1,805 isolations of salmonellae were reported from humans, an average of 361 isolations per week (Tables I and II). This number represents a decrease of 56 (13.4 percent) from the weekly average of October 1967 and a decrease of 63 (14.9 percent) from the weekly average of November 1966.

Reports of 943 nonhuman isolations of salmonellae were received during November, an increase of 471 (99.8 percent) over October 1967 (Tables IV, V, and VI).

## II. REPORTS OF ISOLATIONS FROM THE STATES

### A. HUMAN

The seven most frequently reported serotypes during November were as follows:

<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</u> var. <u>copenhagen</u>	533	29.5	1
2	<u>S. newport</u>	148	8.2	6
3	<u>S. heidelberg</u>	115	6.4	3
4	<u>S. enteritidis</u>	112	6.2	2
5	<u>S. infantis</u>	95	5.3	7
6	<u>S. saint-paul</u>	94	5.2	4
7	<u>S. typhi</u>	62	3.4	Not Listed
	Total	1159	64.2	
	Total (all serotypes)	1805		

The age and sex distribution is shown in Table III.

### B. NONHUMAN

Thirty-five centers reported nonhuman isolations of salmonellae, in which 75 different serotypes were represented. The seven most frequently reported serotypes during November were as follows:

<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</u> var. <u>copenhagen</u>	cattle (54)	116	12.3	1
2	<u>S. anatum</u>	pigs (17)	89	9.4	3
3	<u>S. infantis</u>	egg noodles (18)	67	7.1	2
4	<u>S. heidelberg</u>	chickens (28) and turkeys (23)	60	6.4	Not Listed
5	<u>S. saint-paul</u>	turkeys (18) and chickens (17)	59	6.3	6
6	<u>S. oranienburg</u>	eggs (27)	55	5.8	3
7	<u>S. eimsbuettel</u>	animal feed, unknown (10)	31	3.3	Not Listed
	Total		477	50.6	
	Total (all serotypes)		943		

The most prominent nonhuman sources of salmonellae reported during November were chickens, 143 (15.2 percent); pigs, 115 (12.2 percent); turkeys, 93 (9.9 percent); bone meal/meat scraps, 86 (9.1 percent); and cattle, 70 (7.4 percent).

III. CURRENT INVESTIGATIONS

NONE

IV. REPORTS FROM THE STATES

NONE

V. SPECIAL REPORTS

NONE

VI. INTERNATIONAL

NONE

VII. FOOD AND FEED SURVEILLANCE

NONE

*Figure 1.*  
REPORTED HUMAN ISOLATIONS OF SALMONELLAE  
IN THE UNITED STATES

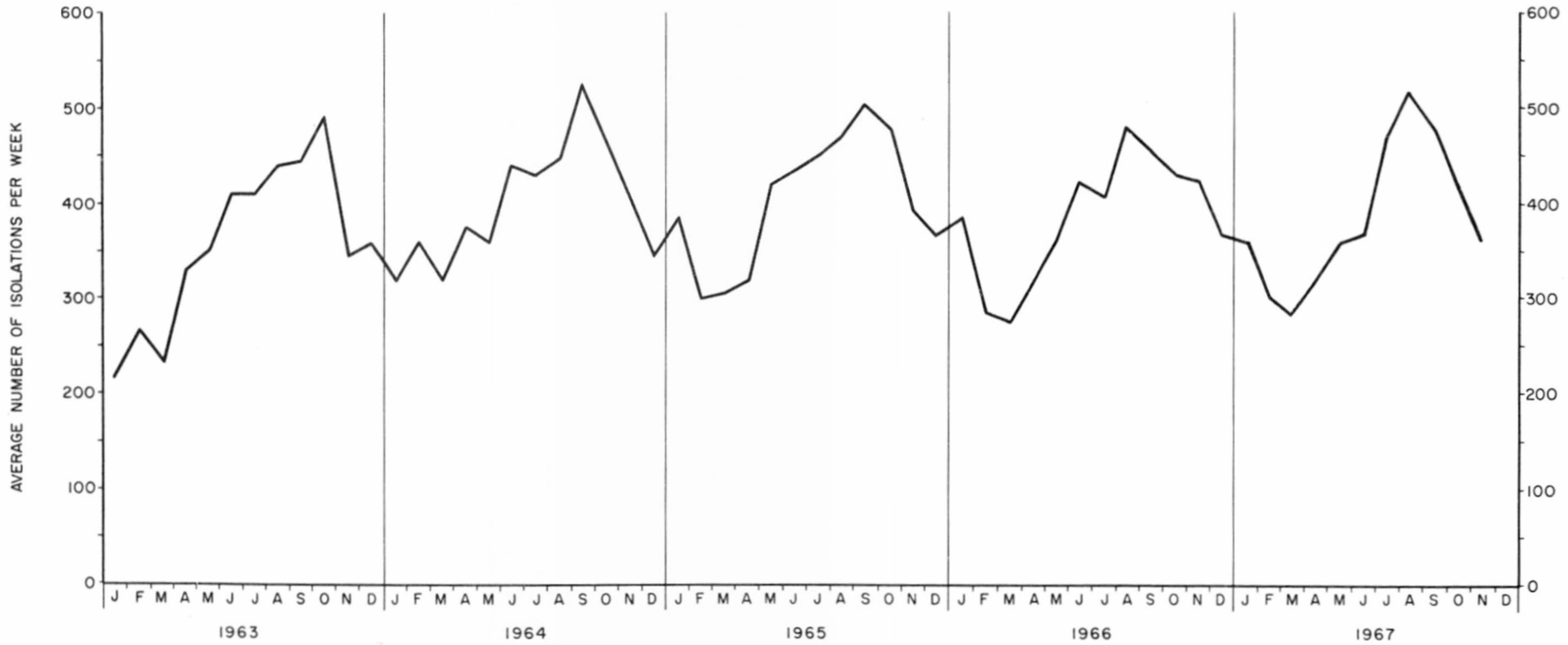




TABLE I (Continued)  
COMMON SALMONELLA SEROTYPES ISOLATED FROM HUMANS IN THE UNITED STATES DURING NOVEMBER, 1967

SEROTYPE	GEOGRAPHIC DIVISION AND REPORTING CENTER																				OTHER VI	NOV TOTAL	% of NOV TOTAL	JAN- NOV 1967 TOTAL	% of JAN- NOV 1967 TOTAL	JAN- NOV 1966 TOTAL	% of JAN- NOV 1966 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	HAW	TOT	
anatum					2		1			1						1			1			3		7	10		27	1.5	278	1.5	305	1.6	anatum	
bareilly		2								1									1			1					12	0.7	75	0.4	72	0.4	bareilly	
berta																1											2	0.1	35	0.2	31	0.2	berta	
blockley		1			1		1		2	1						1			1			1		1	9		32	1.8	487	2.7	561	3.0	blockley	
braenderup																											5	0.3	78	0.4	101	0.6	braenderup	
bredeney									1	1							1		1			1		6	7		18	1.0	117	0.6	138	0.7	bredeney	
chester																											3	0.2	91	0.5	96	0.5	chester	
cholerae-suis v kun																											1	0.06	19	0.1	26	0.1	cholerae-suis v kun	
cubana																											4	0.2	59	0.3	125	0.7	cubana	
derby	1	2			3		6		1	7	1								1			2		4	6		33	1.8	300	1.6	370	2.0	derby	
enteritidis		2			2	1	2		2	5		1					1		2	5	1			1	7		112	6.2	1,179	6.4	1,165	6.2	enteritidis	
give							1																	2	2		4	0.2	58	0.3	72	0.4	give	
heidelberg	3	5			8		6			6				3		2	3		8	3	1	17		4	25		115	6.4	1,544	8.4	1,508	8.1	heidelberg	
indiana		1			1																						5	0.3	43	0.2	63	0.3	indiana	
infantis	1	4	1		6	1	5		7	13						2			2	2		10		9	21		95	5.3	891	4.9	1,256	6.8	infantis	
java			3		3	1	5			6												1			1		38	2.1	281	1.5	337	1.8	java	
javiana							2	4		17	23					2			2			1			1		50	2.1	355	1.9	279	1.5	javiana	
kentucky																1			1								2	0.1	33	0.2	28	0.2	kentucky	
litchfield								1		1	1								1								7	0.4	78	0.4	83	0.4	litchfield	
livingstone																						2		1	3		4	0.2	52	0.3	28	0.2	livingstone	
manhattan																						5			5		17	0.9	264	1.4	114	0.6	manhattan	
meleagridis																											0	0.0	6	0.03	8	0.04	meleagridis	
miami						1	2			4																	7	0.4	61	0.3	76	0.4	miami	
mississippi									1	4																	4	0.2	53	0.3	49	0.3	mississippi	
montevideo							2		3	5	1								1			5			5		25	1.4	379	2.1	322	1.7	montevideo	
muenchen						2	1			3						2			2								18	1.0	201	1.1	209	1.1	muenchen	
newington		1			1									1					1								3	0.2	43	0.2	47	0.3	newington	
newport		3	1		4	1	8		27	36				1		6			7	1		19		2	22		148	8.2	1,161	6.3	1,192	6.4	newport	
oranienburg							2		8	10						3			6			2					41	2.3	383	2.1	380	2.0	oranienburg	
panama									1	1						4			4								12	0.7	173	0.9	257	1.4	panama	
paratyphi B									2	2												5			6		18	1.0	162	0.9	164	0.8	paratyphi B	
poona		1			1																						8	0.4	51	0.3	36	0.2	poona	
saint-paul		1			1		3		1	4	2			1		2			2			2		1	12		94	5.2	812	4.4	685	3.7	saint-paul	
san-diego		1			1											1						1					13	0.7	140	0.8	113	0.6	san-diego	
schwarzengrund																											3	0.2	70	0.4	65	0.3	schwarzengrund	
senftenberg		1			1																				1		3	0.2	56	0.3	69	0.4	senftenberg	
tennessee							1			1																	5	0.3	60	0.3	122	0.7	tennessee	
thompson	1				1				1	1														1	3		43	2.4	458	2.5	544	2.9	thompson	
typhi		5			6	1	4		4	9					1				3	1	2	5		1	9		62	3.4	644	3.5	623	3.4	typhi	
typhi-murium		20	3	1	24		6	3	21	30	1			4		6		1	12	16	5	81		4	106		522	28.9	3,131	27.9	5,309	28.6	typhi-murium	
typhi-murium v cop						1				1		1															11	0.6	259	1.4	155	0.8	typhi-murium v cop	
urbana																											1	0.06	18	0.1	27	0.1	urbana	
weltevreden																									1	1		1	0.06	58	0.3	38	0.2	weltevreden
worthington																											0	0.0	23	0.1	41	0.2	worthington	
untypable group B				2	2	3			10	13					23				23								49	2.7	491	2.7	323	1.7	untypable group B	
untypable group C <sup>1</sup>						1			5	6					3				3					2	2		16	0.9	143	0.8	114	0.6	untypable group C <sup>1</sup>	
untypable group C <sup>2</sup>						1			5	6					4				4								13	0.7	148	0.8	68	0.4	untypable group C <sup>2</sup>	
untypable group D																											5	0.3	79	0.4	56	0.3	untypable group D	
untypable group E									2	2									1								2	0.1	36	0.2	12	0.1	untypable group E	
untypable or unknown				1	1				16	16	1								2								21	1.2	191	1.0	76	0.4	untypable or unknown	
TOTAL COMMON	7	49	8	4	68	13	62	5	137	217	7	2	0	11	30	38	8	4	100	37	12	174	2	50	275		1,734	96.1	17,810	97.0	17,905	96.4	TOTAL COMMON	
TOTAL OTHER	1	2	1	1	5	1	6	1	5	13	0	0	0	0	0	1	0	0	1	1	1	7	0	4	13		71	3.9	558	3.0	676	3.6	TOTAL OTHER	
GRAND TOTAL	8	51	9	5	73	14	68	6	142	230	7	2	0	11	30	39	8	4	101	38	13	181	2	54	288		1,805		18,368		18,581		GRAND TOTAL	



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

SEROTYPE	REPORTING CENTER																								TOTAL	11 mos. TOTAL	SEROTYPE				
	ALA	ARIZ	ARK	CAL	DC	FLA	HAI	ILL	IND	KY	LA	MASS	MICH	MINN	MISS	MO	NH	NJ	NY-BI	NY-C	NC	OKLA	ORE	RI				TENN	TEX	VA	WASH
alachua		1												1															2	11	alachua
binza																1												1	9	binza	
bovis-morbificans								1																				1	6	bovis-morbificans	
brandenburg									1																			1	2	brandenburg	
california				1						1											1					1		4	14	california	
carrau						1																						1	3	carrau	
cerro							1																					1	9	cerro	
cholerae-suis				1								1														1		2	6	cholerae-suis	
colorado																											1	3	colorado		
drypool																		1										1	1	drypool	
duesseldorf																					1							1	1	duesseldorf	
eimsbuettel																					1							3	25	eimsbuettel	
florida						1						2																1	2	florida	
gaminara												1																1	7	gaminara	
gatow																										1		1	1	gatow	
habana							3																					3	15	habana	
hartford																												1	19	hartford	
heilbron																											1	3	heilbron		
illinois				1																								1	1	illinois	
inverness						1																						1	4	inverness	
israel																												1	1	israel	
kottbus				2																								3	3	kottbus	
lexington				1																								1	3	lexington	
minnesota				1																								1	22	minnesota	
mission																												1	19	mission	
muenster						3																						3	23	muenster	
norwich																												2	14	norwich	
oritamerin										1	1															1		1	1	oritamerin	
oslo							2																					2	18	oslo	
paratyphi C													1															1	1	paratyphi C	
pensacola																												1	4	pensacola	
pullorum																												2	3	pullorum	
reading		1																										4	48	reading	
rubislaw						1																						3	23	rubislaw	
saphra																												2	11	saphra	
siegburg																												1	10	siegburg	
simsbury																												1	4	simsbury	
takoradi																												1	1	takoradi	
worcester																												1	1	worcester	
untypable group C						1																						5	5	untypable group C	
untypable group G																												2	6	untypable group G	
untypable group H				1			1																					3	8	untypable group H	
TOTAL	1	1	1	7	1	11	4	6	2	1	6	2	1	1	1	1	1	1	2	1	3	1	1	3	2	5	3	1	71	558	TOTAL

TABLE III

Age and Sex Distribution of Individuals  
Reported as Harboring Salmonellae During November 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	132	122	1	255	20.8	20.8
1 - 4	184	148	2	334	27.3	48.1
5 - 9	83	68	1	152	12.4	60.5
10 - 19	63	52		115	9.4	69.9
20 - 29	51	57		108	8.8	78.7
30 - 39	15	31		46	3.8	82.5
40 - 49	17	47		64	5.2	87.7
50 - 59	15	28		43	3.5	91.2
60 - 69	21	40		61	5.0	96.2
70 - 79	9	17		26	2.1	98.3
80 +	<u>6</u>	<u>14</u>	<u>    </u>	<u>20</u>	1.6	99.9
Subtotal	596	624	4	1224		
Child (Unspec.)	7	9	2	18		
Adult (Unspec.)	21	22	2	45		
Unknown	<u>242</u>	<u>224</u>	<u>52</u>	<u>518</u>		
Total	866	879	60	1805		
Percent of Total	49.6	50.4				







TABLE VI  
OTHER SEROTYPES REPORTED DURING 1967  
FROM NONHUMAN SOURCES

SEROTYPE	MONTH(S)	REPORTING CENTER(S)	NUMBER OF ISOLATIONS	
adelaide	Jun	Ill	1	
albuquerque	Sep	Kan	7	
arkansas	Mar	La	1	
berlin	May	Pa	1	
bonariensis	Aug	Kan	1	
carrau	Jan	La(1)	2	
	Aug	Cal(1)		
champaign	Feb	Minn(1)	3	
	Jul	Mich(2)		
cholerae-suis	Jan	Cal(1)	7	
	Jan-Jun-Jul	Ohio(5)		
	Mar	Va(1)		
corvallis	Jan-Feb	La	3	
decatur	Aug	Kan	5	
drypool	Jan	Conn(1)	24	
	Jan-Feb-Apr-May	Ohio(7)		
	Feb	La(1)		
	Apr	Ind(1)		
	Apr	Kan(1)		
	May-Aug-Oct	Mich(8)		
	May-Jun-Jul	Minn(4)		
	May	Tenn(1)		
duisburg	Jun	Ohio		1
eastbourne	Jan	Minn(1)		2
	Sep	Mich(1)		
gato	Apr	Wash(4)	5	
	May	Kan(1)		
grumpensis	Jan	La(2)	3	
	Jan	Mich(1)		
hartford	Jan	Hai	1	
hato	Jun	La	1	
irumu	Apr-Aug	Hai	2	
madelia	Jul	DC	1	
manchester	Jul	NJ	1	
miami	Apr	Fla(1)	3	
	Aug-Oct	Cal(2)		
mission	May	Ohio	1	
mississippi	Feb	La(2)	4	
	Oct	Cal(2)		
mokola	Feb	La	1	
ness-ziona	Jul	NC	2	
new-brunswick	Aug	Kan(1)	2	
	Oct	Ill(1)		
new-haw	Feb	Iowa(1)	2	
	Apr	Ill(1)		
norwich	Aug	Tex	1	
ohio	Oct	Ohio	2	
okerara	Feb	La	1	

TABLE VI  
OTHER SEROTYPES REPORTED DURING 1967  
FROM NONHUMAN SOURCES - CONTINUED

SEROTYPE	MONTH(S)	REPORTING CENTER(S)	NUMBER OF ISOLATIONS	
oslo paratyphi-B	Feb	Fla	2	
	Jun	Wash(1)		
	Jul	Mass(1)	3	
	Jul	Tenn(1)		
	Jun	Cal		1
putten redlands rubislaw	Feb	La	1	
	Jan-Feb-Mar	La(3)	15	
	Apr	Kan(10)		
	Apr-Jul	Tex(2)		
	saphra shubra simsbury	Jun	Tex	1
Feb		La	1	
Mar		Mo(1)	3	
Apr		Kan(2)		
stanley sundsvall		Apr	La	1
	Jul	Ariz	2	
taksony	Jan-Feb	Utah(2)	3	
	Aug	Cal(1)		
	tucson tuindorp	Feb	Cal	1
		Feb	Ill(1)	2
		Apr	Cal(1)	
typhi typhi-suis	Jul	Cal	1	
	Jan-May-Jun-Jul	Minn(4)	9	
	Mar-Oct	Cal(5)		
vejle westhampton	Feb	La	1	
	Jan-Mar	Ill(2)	19	
	Jan-Feb	La(9)		
	May	Minn(2)		
	Jun	SD(1)		
	Jul	Kan(5)		
	wichita zanzibar	Feb		Utah
May		NJ(1)		3
Jul		DC(2)		
zeist	Sep	Conn	1	
TOTAL			162	