

Middle East Consortium on Infectious Diseases Surveillance

MECIDS

Regional Technical Report 2005-2011



2011



Middle East Consortium on
Infectious Disease Surveillance

Definitions

Human specimens

Source of specimens from blood of patients or stool from patients or food handlers

Non human specimens

Source of specimens from food items, drinking water or waste water

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Regional Data analysis (2005-2011)

The cumulative number of specimens which were tested from the beginning of the project activities (July, 2005), until 31st, December 2011, from all three partners were 641086, yielded 7867 isolates, Salmonella isolates were divided according to the source of specimens into human which yielded 7193 isolates and non human which yielded 674 isolates.

Table 1; Distribution of tested Specimens and isolates by source of specimens, year and MECIDS partners,2005-2011

Source of Specimens	Country	Description	2005	2006	2007	2008	2009	2010	2011	Total
Human	Israel	Specimens	70272	69689	42617	39209	33586	35483	33931	324787
		Isolates	773	986	885	924	951	1048	996	6563
		Isolationrate/1000	11	14	21	24	28	30	29	20
	Jordan	Specimens	5000	11599	13174	13102	13759	13304	13339	83277
		Isolates	53	93	90	51	35	58	32	412
		Isolationrate/1000	11	8	7	4	3	4	2	5
	Palestine	Specimens	12842	6921	302	343	143	1807	136	22494
		Isolates	80	52	35	15	31	2	3	218
		Isolationrate/1000	6	8	116	44	217	1	22	10
	All Human	Specimens	88114	88209	56093	52654	47488	50594	47406	430558
Isolates		906	1131	1010	990	1017	1108	1031	7193	
Non Human specimens	Israel	Specimens	0	0	0	0	0	0	0	0
		Isolates	0	0	0	0	0	0	0	0
		Isolationrate/1000								
	Jordan	Specimens	9422	22290	24769	30050	33559	25990	20308	166388
		Isolates	0	10	7	13	21	8	18	77
		Isolationrate/1000	0.0	0.4	0.3	0.4	0.6	0.3	0.9	0.5
	Palestine	Specimens	8807	5315	4685	5975	7483	6555	5320	44140
		Isolates	113	77	91	100	106	68	42	597
		Isolationrate/1000	13	14	19	17	14	10	8	14
	All Non Human	Specimens	18229	27605	29454	36025	41042	32545	25628	210528
Isolates		113	87	98	113	127	76	60	674	
All	MECIDS	Total Specimens	106343	115814	85547	88679	88530	83139	73034	641086
		Total Isolates	1019	1218	1108	1103	1144	1184	1091	7867
		Isolationrate/1000	10	11	13	12	13	14	15	12

Data collection in Israel began on January 2005; the total Number of specimens from Israel does not include the number of food specimens

Data collection in Jordan began on July 2005

Data collection in Palestine began on January 2005; there is no data within the period August-December 2006

Human specimens collected from patient's blood yielded 160 isolates; and from patients or food handlers stool yielded 7033 isolates.

Non human specimens collected from food items (Jordan), and water, waste water and swimming pools (Palestine) yielded 674 isolates; there weren't data concerning non human specimens from Israel

The following table illustrates the distribution of the Salmonella isolates by source of specimens, year and by MECIDS partners, table 2.

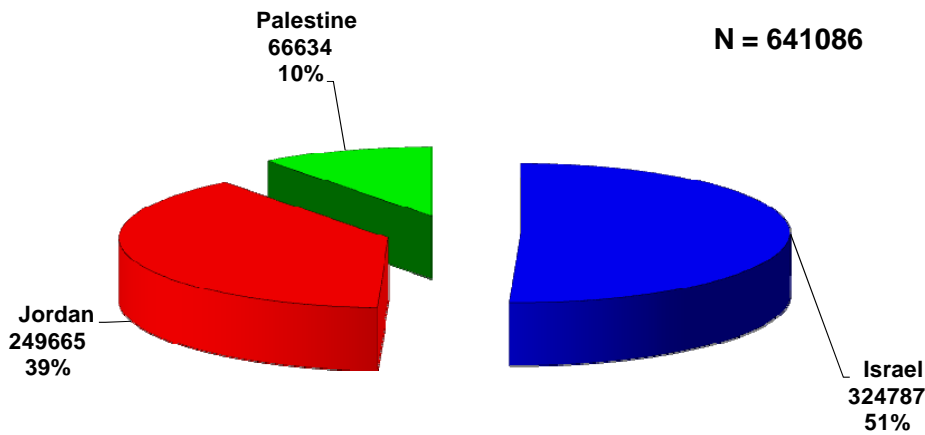
Table 2; Distribution of Salmonella isolates, by MECIDS partners, source of specimens and by year, 2005-2011

years	Human								Total Human	Non Human specimens				Grand Total
	Blood specimens				Stool specimens*					Israel	Jordan	Palestine	Total	
	Israel	Jordan	Palestine	Total	Israel	Jordan	Palestine	Total						
2005	20	6	0	26	753	47	80	880	906	0	0	113	113	1019
2006	32	2	0	34	954	91	52	1097	1131	0	10	77	87	1218
2007	15	3	0	18	870	87	35	992	1010	0	7	91	98	1108
2008	24	0	0	24	900	51	15	966	990	0	13	100	113	1103
2009	31	1	0	32	920	34	31	985	1017	0	21	106	127	1144
2010	13	1	0	14	1035	57	2	1094	1108	0	8	68	76	1184
2011	12	0	0	12	984	32	3	1019	1031	0	18	42	60	1091
Total	147	13	0	160	6416	399	218	7033	7193	0	77	597	674	7867

* include other non stool non blood

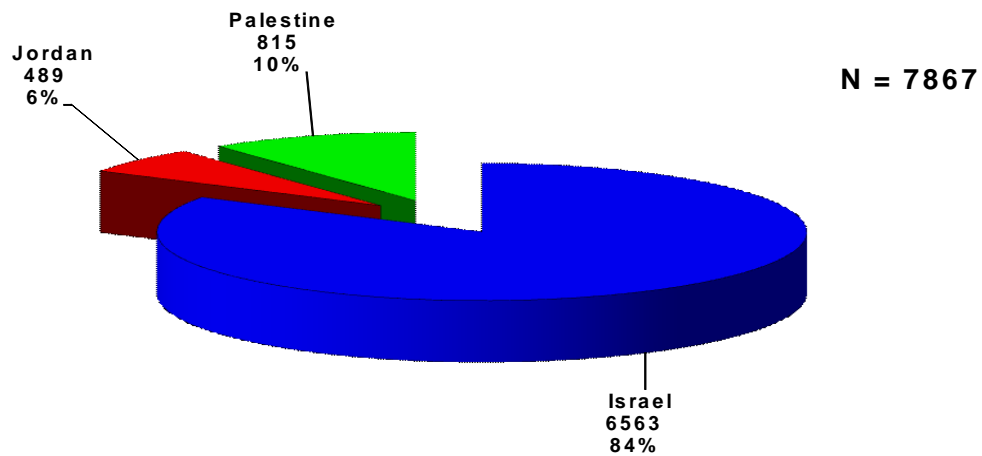
Of the total 641086 specimens which represents the cumulative number of tested specimens in the period 2005-2011 from MECIDS project partners; 324787 (51%) were from Israel yielded 6563 isolates, 249665 (39%) were from Jordan which yielded 489 isolates and 66634 (10%) from Palestine yielded 815 isolates figure. 1

Figure 1; Distribution of human and non human Salmonella Specimens 2005-2011 by MECIDS partners



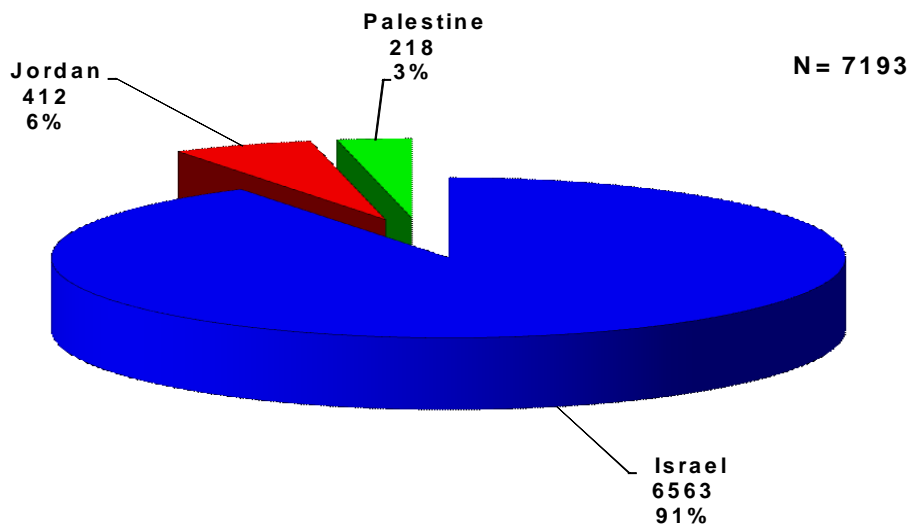
At the regional level 84% of isolates were from Israel, 10% of isolates were from Palestine and 6% of isolates were from Jordan figure 2.

Figure 2; Distribution of human and non human Salmonella isolates, 2005-2011 by MECIDS partners



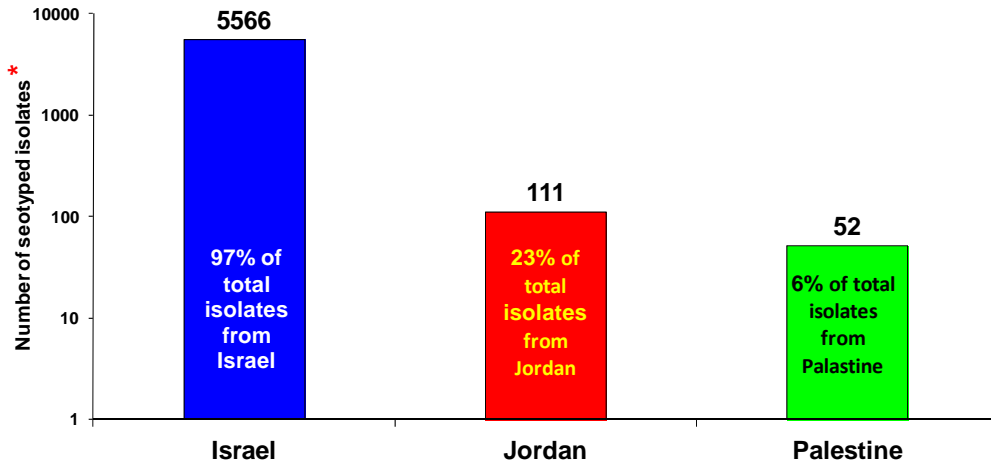
specimens from human source for the period 2005-2011 represents 430558 specimens yielded 7193 isolates; 91% of the yielded isolates were from Israel, 6% from Jordan and 3% from Palestine; figure 3.

Figure 3; Distribution of Salmonella isolates from human specimens, 2005-2011 by MECIDS partners



Serotyping were performed to 97%, 23% and 6% of Salmonella isolates from Israel, Jordan and Palestine respectively; figure 4.

Figure 4; Distribution of Serotyped Salmonella isolates, 2005-2011 by MECIDS partners

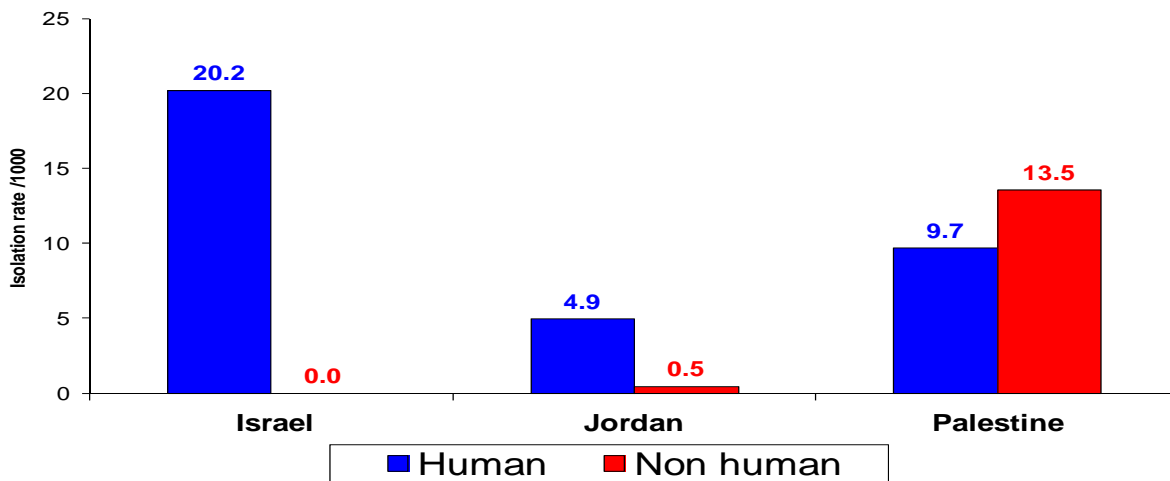


* **logarithmic scale**

The isolation rate for human specimens was 20.2, 4.9 and 9.7/1000 for Israel, Jordan and Palestine respectively.

The isolation rate for the non human specimens for Jordan was 0.5/1000 and for Palestine 13.5 /1000; there aren't non human specimens from Israel; figure 5.

Figure 5; Salmonella isolation Rate/1000, from both human and non human Specimens 2005-2011 by country



The following summary table illustrates total number of tested specimens “both human and non human”, number of Salmonella isolates, number of serogrouped and number of Serotyped Salmonella isolates from MECIDS partners by year, table 3.

Table 3; Total human and non human Salmonella isolates from MECIDS partners by Serogroups and year of isolation, 2005-2011

Salmonella Seogroups	Israel							Jordan					palestine						Israel	Jordan	Palestine	Grand total				
	Total 2005	Total 2006	Total 2007	Total 2008	Total 2009	Total 2010	Total 2011	Cummulative 2005	Cummulative 2006	Cummulative 2007	Cummulative 2008	Cummulative 2009	Cummulative 2010	Cummulative 2011	Total 2005	Total 2006	Total 2007	Total 2008					Total 2009	Total 2010	Total 2011	
Salmonella A	3	9	6	3	20	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	43	2	0	45
Salmonella B	141	141	85	105	80	90	74	11	32	10	18	16	24	14	3	35	18	14	23	9	3	716	125	105	946	
Salmonella C	0	23	13	28	6	29	25	0	0	0	0	0	0	0	0	50	0	1	0	0	0	124	0	51	175	
Salmonella C1	185	301	254	265	394	434	298	4	7	5	8	10	4	4	4	85	23	16	27	34	21	2131	42	210	2383	
Salmonella C2	107	187	138	145	114	110	69	9	25	7	12	3	10	6	2	45	31	26	21	2	10	870	72	137	1079	
Salmonella C2-C3	5	1	2	4	3	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	24	
Salmonella C3	12	6	6	1	1	0	3	0	0	0	0	0	0	0	6	4	1	0	0	0	0	29	0	11	40	
Salmonella D	240	250	172	168	237	219	105	19	20	45	9	23	18	9	5	15	1	2	1	2	0	1391	143	26	1560	
Salmonella D1	0	0	1	4	3	5	1	0	0	0	0	0	0	0	0	3	0	1	2	2	0	14	0	8	22	
Salmonella E	13	20	24	35	14	23	15	4	12	17	9	3	1	3	2	9	0	1	0	0	0	144	49	12	205	
Salmonella E1	0	1	0	1	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	
Salmonella F	1	1	0	1	4	8	0	0	0	0	1	0	0	0	0	3	14	18	4	0	2	15	1	41	57	
Salmonella G	3	9	2	12	10	18	67	0	1	2	1	1	3	1	0	2	0	0	0	0	0	121	9	2	132	
Salmonella H	0	1	2	0	0	2	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	5	4	0	9	
Salmonella I	22	3	13	12	20	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	0	0	85	
Salmonella K	1	1	0	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	3	3	0	6	
Salmonella L	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Salmonella M	3	5	5	0	2	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	16	2	0	18	
Salmonella N	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	
Salmonella O	1	1	3	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	
Salmonella Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salmonella P	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	
Salmonella Q	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Salmonella R	0	1	0	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	
Salmonella S	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	
Salmonella spp.	34	22	158	131	29	69	332	6	6	8	4	0	2	10	0	2	0	1	0	1	4	775	36	8	819	
Salmonella T	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	
Salmonella X	1	0	0	2	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	
Salmonella Z	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Total No. specimens	70272	69689	42617	39209	33586	35483	33931	14422	33889	37943	43152	47318	39294	33647	21649	12236	4987	6318	7626	8362	5456	324787	249665	66634	641086	
Total No. Isolates	773	986	885	924	951	1048	996	53	103	97	64	56	66	50	193	129	126	115	137	70	45	6563	489	815	7867	
Total No. serogrouped isolates	747	941	723	753	919	917	567	53	103	97	64	56	66	50	193	129	126	115	137	70	45	5567	489	815	6871	
Isolation Rate/1000	11.0	14.1	20.8	23.6	28.3	29.5	29.4	3.7	3.0	2.6	1.5	1.2	1.7	1.5	8.9	10.5	25.3	18.2	18.0	8.4	8.2	20.2	2.0	12.2	12.3	

The following summary table illustrates human Salmonella isolates from MECIDS partners by Serogroups and year of isolation, table 4.

Table 4; Total human Salmonella isolates from MECIDS partners by Serogroups and year of isolation

Salmonella Seogroups	Israel							Jordan							palestine							Israel	Jordan	Palestine	Grand total	
	Total 2005	Total 2006	Total 2007	Total 2008	Total 2009	Total 2010	Total 2011	Total 2005	Total 2006	Total 2007	Total 2008	Total 2009	Total 2010	Total 2011	Total 2005	Total 2006	Total 2007	Total 2008	Total 2009	Total 2010	Total 2011					
Salmonella A	3	9	6	3	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0	0	43
Salmonella B	141	141	85	105	80	90	74	11	30	9	11	9	22	9	0	17	0	0	0	0	0	0	716	101	17	834
Salmonella C	0	23	13	28	6	29	25	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	124	0	50	174
Salmonella C1	185	301	254	265	394	434	298	4	6	5	6	7	3	1	0	80	3	0	0	0	1	2131	32	84	2247	
Salmonella C2	107	187	138	145	114	110	69	9	24	7	11	3	10	5	0	10	0	1	0	0	0	870	69	11	950	
Salmonella C2-C3	5	1	2	4	3	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	24	
Salmonella C3	12	6	6	1	1	0	3	0	0	0	0	0	0	0	0	4	1	0	0	0	0	29	0	5	34	
Salmonella D	240	250	172	168	237	219	105	19	15	39	9	14	16	7	0	12	0	0	0	0	0	1391	119	12	1522	
Salmonella D1	0	0	1	4	3	5	1	0	0	0	0	0	0	0	0	3	0	0	0	0	0	14	0	3	17	
Salmonella E	13	20	24	35	14	23	15	4	11	17	8	2	1	2	2	9	0	0	0	0	0	144	45	11	200	
Salmonella E1	0	1	0	1	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	
Salmonella F	1	1	0	1	4	8	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	15	1	0	16	
Salmonella G	3	9	2	12	10	18	67	0	1	2	0	0	1	0	0	2	0	0	0	0	0	121	4	2	127	
Salmonella H	0	1	2	0	2	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	5	4	0	9	
Salmonella I	22	3	13	12	20	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	0	0	85	
Salmonella K	1	1	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	2	0	5	
Salmonella L	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Salmonella M	3	5	5	0	2	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	16	2	0	18	
Salmonella N	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	
Salmonella O	1	1	3	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	
Salmonella Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salmonella P	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	
Salmonella Q	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Salmonella R	0	1	0	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	
Salmonella S	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	
Salmonella spp.	34	22	158	131	29	69	332	6	6	8	3	0	2	7	0	2	0	1	0	0	0	775	32	3	810	
Salmonella T	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	
Salmonella X	1	0	0	2	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	
Salmonella Z	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Total No. specimens	70272	69689	42617	39209	33586	35483	33931	5000	11599	13174	13102	13759	13304	13339	12842	6921	302	343	143	1807	136	324787	83277	22494	430558	
Total No. Isolates	773	986	885	924	951	1048	996	53	93	90	51	35	58	32	80	52	35	15	31	2	3	6563	412	218	7193	
Total No. serogrouped isolates	747	941	723	753	919	917	567	53	93	90	51	35	58	32	80	52	35	15	31	2	3	5567	412	218	6197	
Isolation Rate/1000	11.0	14.1	20.8	23.6	28.3	29.5	29.4	10.6	8.0	6.8	3.9	2.5	4.4	2.4	6.2	7.5	115.9	43.7	216.8	1.1	22.1	20.2	4.9	9.691	17	

The following summary table illustrates non human Salmonella isolates from MECIDS partners by Serogroups and year of isolation, table 5.

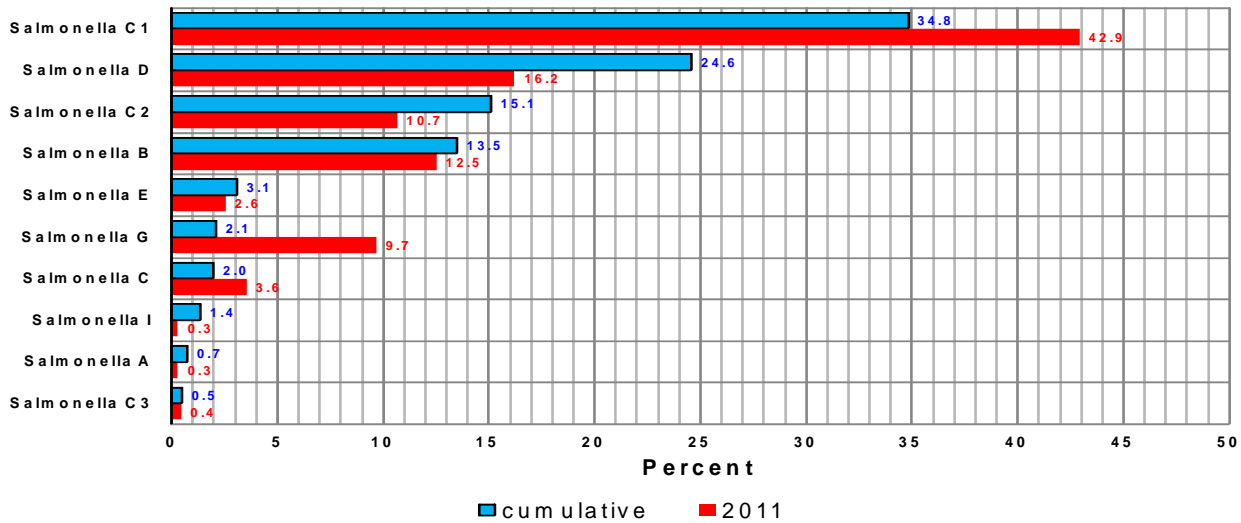
Table 5; Total non human Salmonella isolates from MECIDS partners by Serogroups and year of isolation, 2005-2011

Salmonella Seogroups	Israel							Jordan							palestine							Israel	Jordan	Palestine	Grand total			
	Total 2005	Total 2006	Total 2007	Total 2008	Total 2009	Total 2010	Total 2011	Total 2005	Total 2006	Total 2007	Total 2008	Total 2009	Total 2010	Total 2011	Total 2005	Total 2006	Total 2007	Total 2008	Total 2009	Total 2010	Total 2011							
Salmonella A	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Salmonella B	0	0	0	0	0	0	0	0	2	1	7	7	2	5	3	18	18	14	23	9	3	0	24	88	112			
Salmonella C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
Salmonella C1	0	0	0	0	0	0	0	0	1	0	2	3	1	3	4	5	20	16	27	34	20	0	10	126	136			
Salmonella C2	0	0	0	0	0	0	0	0	1	0	1	0	0	1	2	35	31	25	21	2	10	0	3	126	129			
Salmonella C2-C3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella C3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6	6		
Salmonella D	0	0	0	0	0	0	0	0	5	6	0	9	2	2	5	3	1	2	1	2	0	0	24	14	38			
Salmonella D1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	0	0	0	5	5			
Salmonella E	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	1	0	0	0	4	1	5				
Salmonella E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	14	18	4	0	2	0	0	41	41				
Salmonella G	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	5	0	5				
Salmonella H	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella K	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1				
Salmonella L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella R	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella spp.	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0	1	4	0	4	5	9			
Salmonella T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Salmonella Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total No. specimens	0	0	0	0	0	0	0	9422	22290	24769	30050	33559	25990	20308	8807	5315	4685	5975	7483	6555	5320	0	166388	44140	210528			
Total No. Isolates	0	0	0	0	0	0	0	0	10	7	13	21	8	18	113	77	91	100	106	68	42	0	77	597	674			
Total No. serogrouped isolates	0	0	0	0	0	0	0	0	10	7	13	21	8	18	113	77	91	100	106	68	42	0	77	597	674			
Isolation Rate/1000								0.0	0.4	0.3	0.4	0.6	0.3	0.9	12.8	14.5	19.4	16.7	14.2	10.4	7.9		0.5	13.5	3.2			

The most common Salmonella Serogroups tested at the regional level were Salmonella group C1 (34.8%), Salmonella group D (24.6%),; Salmonella group C2 (15.1%) and Salmonella group B (13.8%).

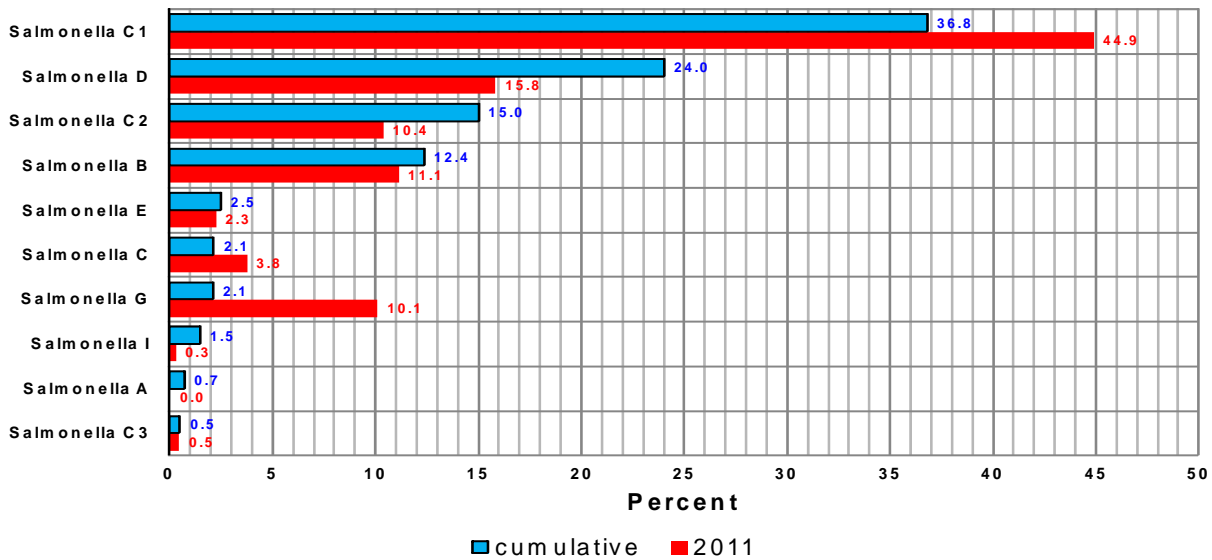
There is increasing in the proportions of G, and C Serogroups in 2011, else Serogroups takes the same pattern as in previous year's figure 6.

Figure 6; Top ten Sero-grouped Salmonella Isolates at MECIDS regional level 2005-2011



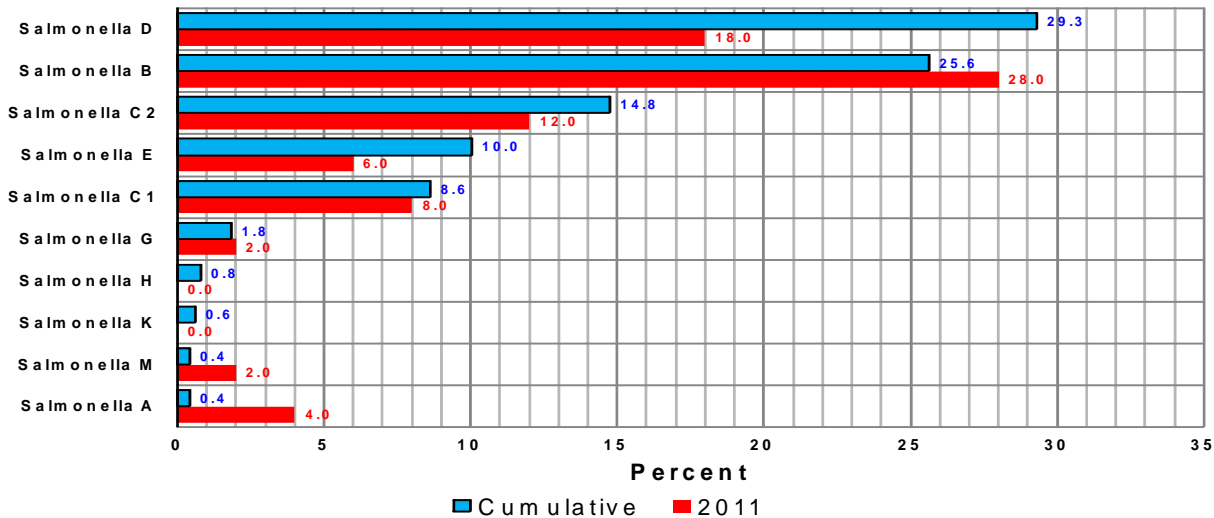
The most common Salmonella Serogroups tested in Israel were Salmonella group C1 (36.8%) followed by Salmonella group D (24%); due to fact that the tested specimens mostly were from Israel the pattern of Serogroups distribution is identical to Serogroups pattern from all MECIDS partners. figure 7.

Figure 7; Top ten Sero-grouped Salmonella Isolates, Israel 2005-2011



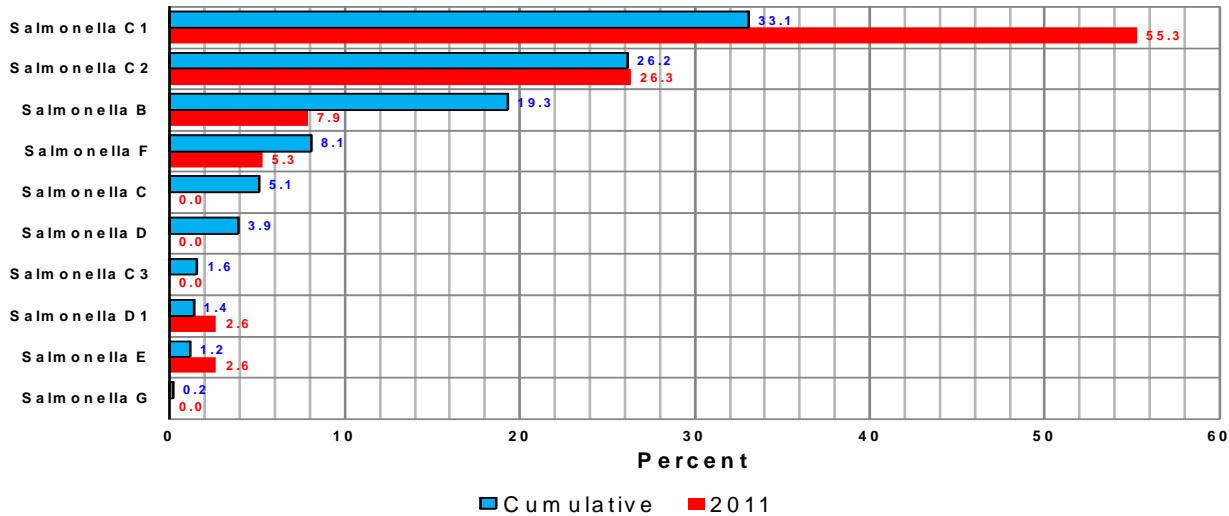
The most common Salmonella Serogroups tested in Jordan in were Salmonella group D (29.3%) followed by Salmonella group B (25.6%) and Salmonella C2 (14.8%); There is increasing in the proportions of A, B, and M Serogroups in 2011, figure 8.

Figure 8; Top ten Sero-grouped Salmonella Isolates, Jordan 2005-2011



The most common Salmonella Serogroups tested in Palestine were Salmonella group C1 (33.1%), followed by Salmonella group C2 (26.2%) in 2011, there is increasing in the proportion of C1, D1 and E Serogroups; figure 9.

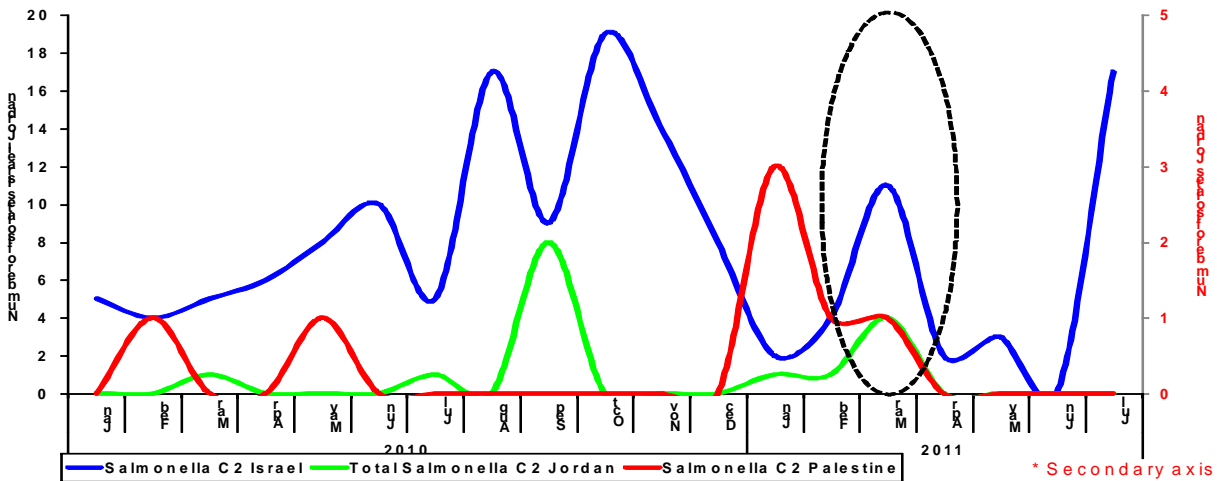
Figure 9; Top ten Sero-grouped Salmonella Isolates, Palestine 2005-2011



Despite a big variation in the number of tested specimens and yielded isolates between MECIDS partners, were observed a temporal association in the number of isolation for

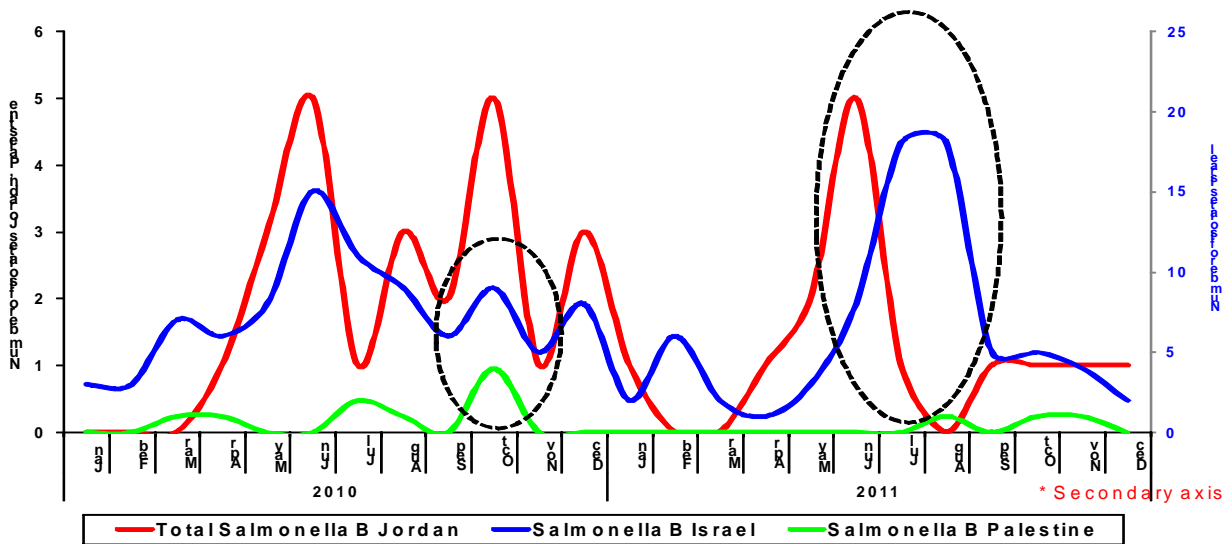
certain serogroups of Salmonella among MECIDS partners; were observed several temporal association in the isolation of Salmonella group C2; more evident on March, 2011 where there was concurrent increasing from Israel and Palestine preceded of increasing from Jordan . figure 10

Figure 10, Distribution of salmonella isolation group C2 isolated from both human and non human specimens from MECIDS partners 2005-2011 by month of isolation



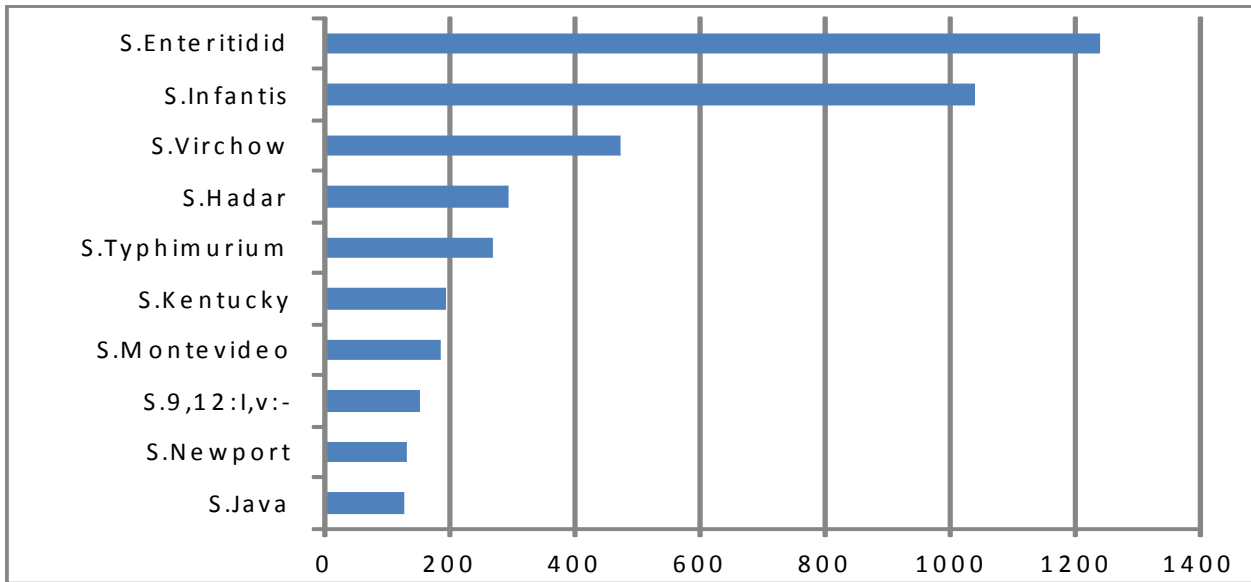
Same for serogroup b on Jun / July 2011

Figure 11, Distribution of salmonella isolation group B isolated from both human and non human specimens from MECIDS partners 2011 by month of isolation



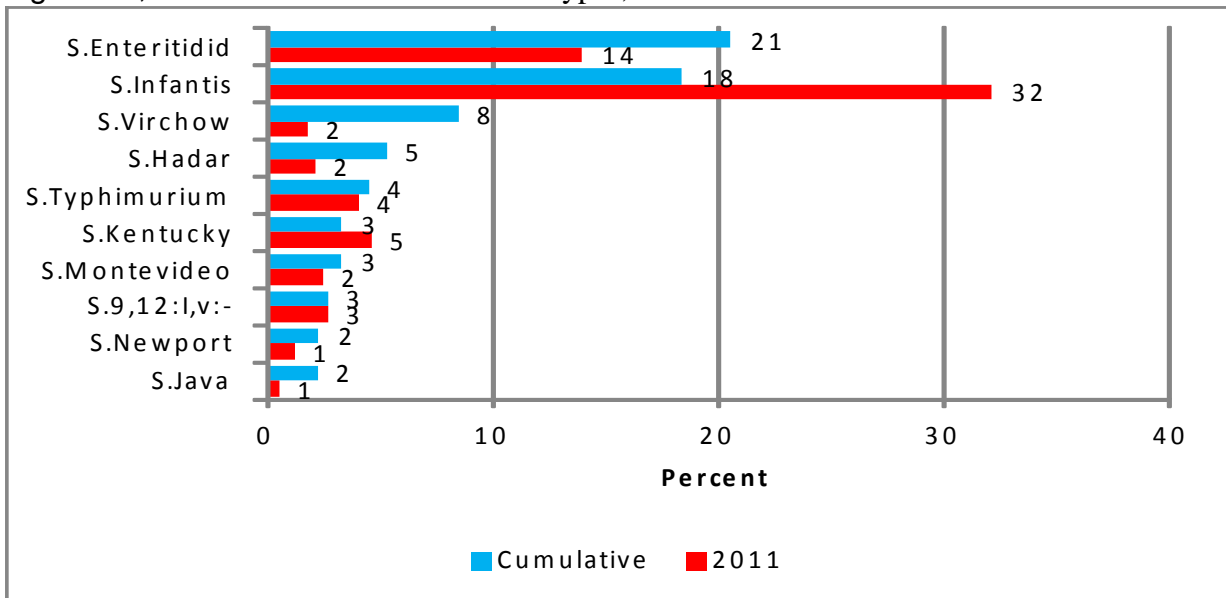
The total number of serotyped isolates from MECIDS partners was 5729; the most common serotypes were Salmonella enteritidis, Salmonella infantis and Salmonella virchow figure 12.

Figure 12; Top 10 salmonella serotypes, MECIDS 2005-2011



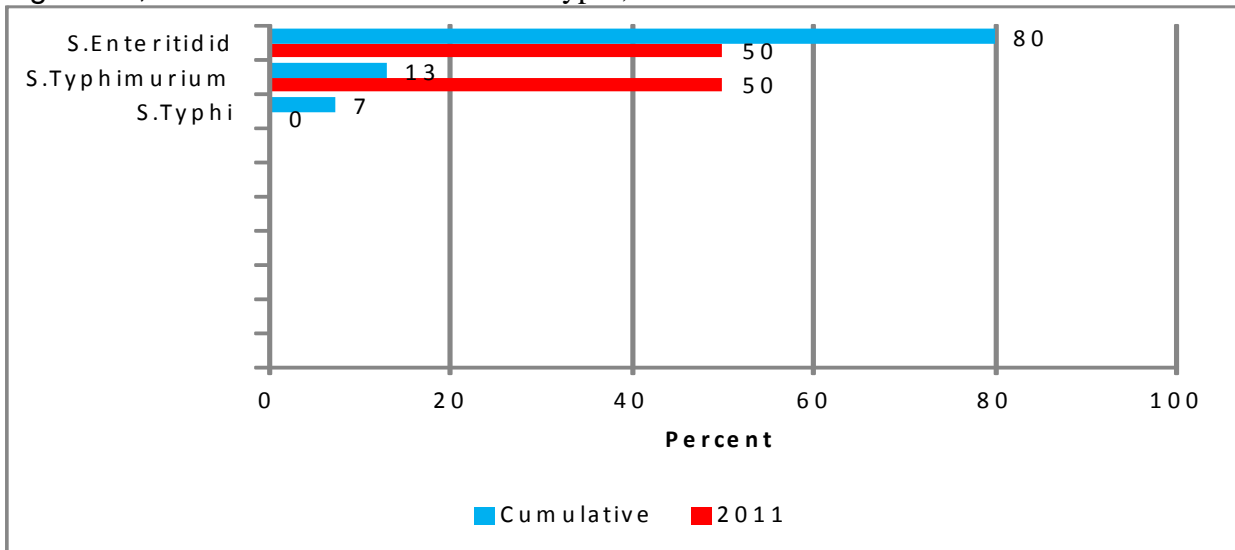
The cumulative number of serotypes identified from Israel was 5566, the most common serotype was Salmonella D, enteritidis 1145 (21%); Salmonella C1, infantis was the most common 182 (32%) in 2011 figure 13 illustrates top 10 serotypes from Israel,

Figure 13, Distribution of salmonella serotypes, Israel 2005-2011



The cumulative number of serotypes from Jordan was 124, the most common was Salmonella D, enteritidis 99 (80%), only three serotypes were identified figure 14;

Figure 14, Distribution of salmonella serotypes, Jordan 2005-2011



The cumulative number of serotypes from Palestine was 52; the most common was Salmonella C1, infantis 13 (25%), same Salmonella C1, infantis was the most common 8 (75%) in 2011 figure 15 illustrates top 10 serotypes from Palestine;

Figure 15, Distribution of salmonella serotypes, Palestine 2005-2011

