



## ISRAEL (ISR)

Population: 5.9 million

Area: 20 770 km<sup>2</sup>



*The designations and the presentation of material on this map of the Member States of the WHO European Region (as at 31 July 1997) do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines represent approximate border lines for which there may not yet be full agreement.*

### 1. General information

Foodborne/waterborne infectious diseases are included in the notifiable diseases list as defined by the law.

The district and sub-district Public Health Offices receive notifications on individual cases and outbreaks from community and hospital physicians, microbiological laboratories and sometimes from the place where the food was eaten (e.g. restaurant). The relevant information found from hospital records and laboratories is added and reported to the Department of Epidemiology, Ministry of Health, where the data are compiled weekly, monthly and on an annual basis and disseminated to the Health Services all over the country.

**2. Statutory notification**

Table IL 1

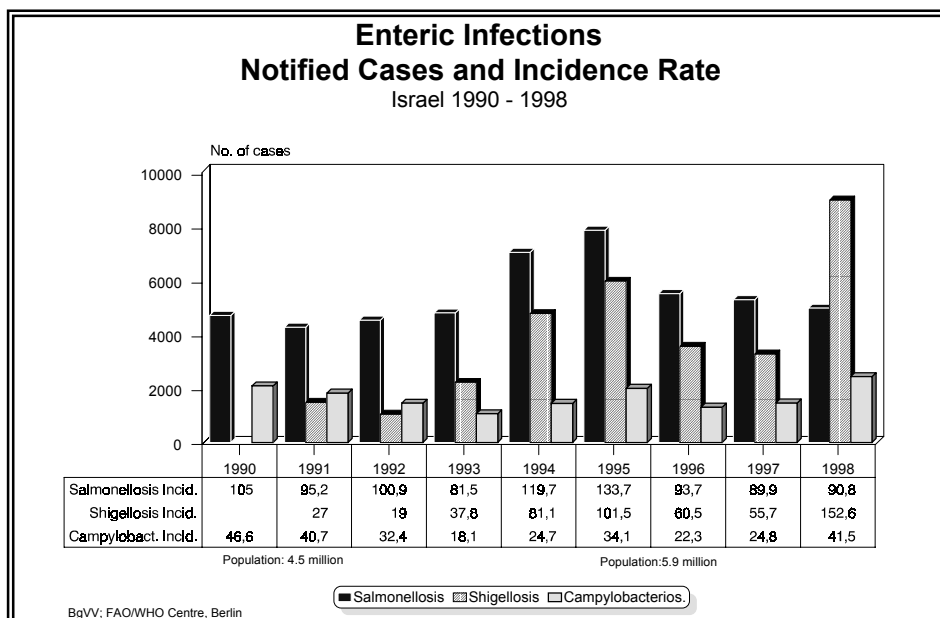
**Selected infectious enteric diseases**  
(based on monthly notifications)  
**ISRAEL 1993 - 1998**

Disease	Year					
	1993	1994	1995	1996	1997	1998
Shigellosis (lab. confirmed)*	2233	4786	5987	3571	3285	9001
<i>Incidence rate</i>	37.8	81.1	101.5	60.5	55.7	152.6
Salmonellosis (excl. typhoid and paratyphoid)*	4810	7062	7889	5527	5306	4992
<i>Incidence rate</i>	81.5	119.7	133.7	93.7	89.9	84.6
Viral hepatitis (A; B; others)	3642	3891	2308	2053	4316	2093
<i>Incidence rate</i>	61.7	65.9	39.1	34.8	73.2	35.5
Campylobacteriosis*	1067	1455	2014	1314	1461	2446
<i>Incidence rate</i>	18.1	24.7	34.1	22.3	24.8	41.5
Foodborne/waterborne diseases**	1122	859	1083	919	933	600
<i>Incidence rate</i>	19.0	14.6	18.4	15.6	15.8	10.2

\* Sporadic cases and cases in outbreaks by contact

\*\* Cases in outbreaks including unknown way of transmission

Figure IL 1



**WHO Surveillance Programme for Control of Foodborne Infections and Intoxications in Europe**  
**7th Report**

Country Reports: *ISRAEL 1993 – 1998*

**3. Epidemiologically investigated incidents**

Table IL 2

**Foodborne outbreaks**  
**ISRAEL 1990 - 1998**

Year	Number of outbreaks	No. of cases in outbreaks
1990	27	1424
1991	43	1022
1992	40	1304
1993	32	1122
1994	47	859
1995	30	1083
1996	36	919
1997	38	933
1998	28	600

**3.1 Causative agents**

Table IL 3

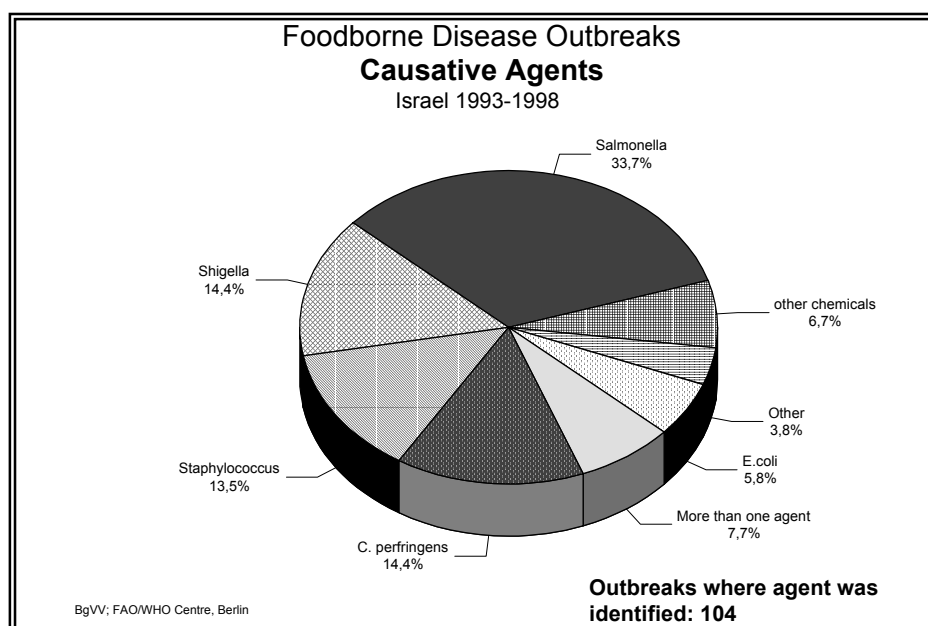
**Foodborne outbreaks by causative agents**  
**ISRAEL 1993 - 1998**

Causative Agents	Year												Total		
	1993		1994		1995		1996		1997		1998		1993-1998		
	O*	C**	O*	C**	O*	C**	O*	C**	O*	C**	O*	C**	Outbreaks No.	C** %	
<i>C.perfringens</i>	1	20	2	39	6	387	2	33	3	281	1	20	15	7.1	780
<i>E. coli</i>	1	57	-	-	1	300	2	21	1	15	1	54	6	2.8	447
Hepatitis A	1	34	-	-	-	-	-	-	-	-	1	47	2	0.9	81
<i>S. Typhi</i>	1	2	-	-	-	-	-	-	-	-	-	-	1	0.5	2
<i>Salmonella</i>	7	601	5	195	9	238	5	180	5	48	3	226	34	16.1	1488
<i>Shigella</i>	2	70	6	93	1	14	3	95	1	48	2	15	15	7.1	335
<i>St. aureus</i>	4	63	-	-	-	-	-	-	-	-	-	-	4	1.9	63
<i>Staphylococcus</i>	-	-	7	76	1	5	-	-	1	3	1	18	10	4.7	102
<i>Staph.+E.coli</i>	-	-	3	21	-	-	1	3	1	46	-	-	5	2.4	70
<i>Staph.+E.coli+ Giardia</i>	-	-	1	18	-	-	-	-	-	-	-	-	1	0.5	18
Other bacteria (please specify)	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0	0
Mushrooms	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0	0
Other chemical compounds	2	21	2	15	-	-	1	11	-	-	2	18	7	3.3	65
<i>Staph+Salm</i>	-	-	-	-	-	-	-	-	1	5	-	-	1	0.5	5
Trichinosis	-	-	-	-	-	-	-	-	-	-	2	23	2	0.9	23
<i>St.aur+C.perf</i>	-	-	-	-	-	-	-	-	-	-	1	8	1	0.5	8
Unknown	13	254	21	402	12	139	22	576	25	487	14	171	107	50.7	2029
<b>TOTAL</b>	<b>32</b>	<b>1122</b>	<b>47</b>	<b>859</b>	<b>30</b>	<b>1083</b>	<b>36</b>	<b>919</b>	<b>38</b>	<b>933</b>	<b>28</b>	<b>600</b>	<b>211</b>	<b>100.0</b>	<b>5516</b>

\* Outbreaks

\*\* Cases in outbreaks

Figure IL 2



### 3.2 Incriminated food

Table IL 4

**Foodborne outbreaks by food and causative agent**  
ISRAEL 1993 - 1998

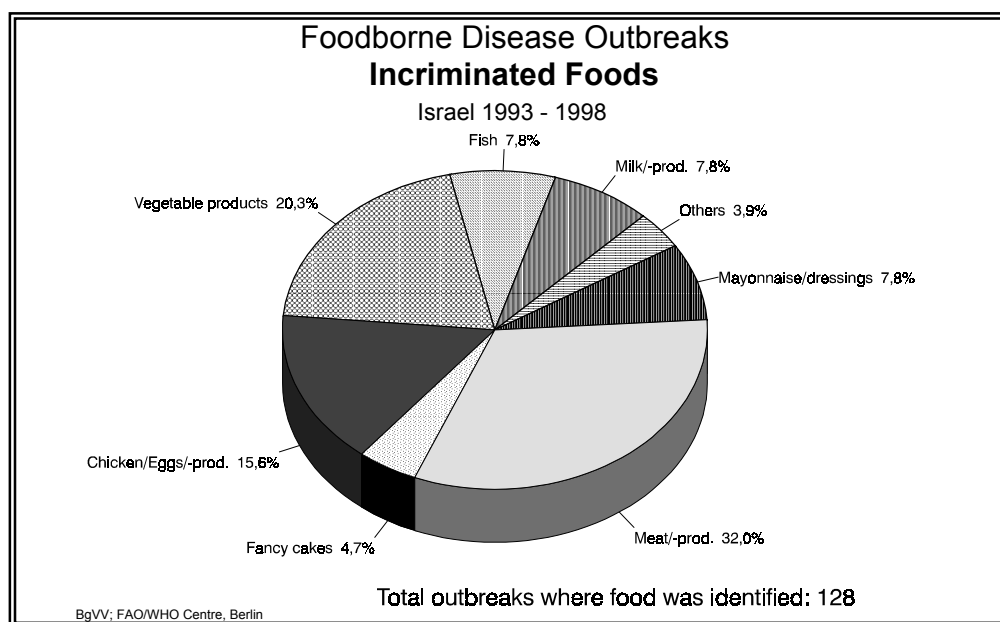
Food	Causative agent											
	<i>Salmonella</i>	<i>Shigella</i>	<i>Staph.</i>	<i>C.perfr.</i>	<i>Staph+E.</i>	<i>Coli.</i>	<i>Trichinosis</i>	Other compounds	<i>E.coli</i>	Hep A	Unknown	<b>Total</b>
Cheese,Milk	1***	-	3	-	-	-	-	-	-	-	6	<b>10</b>
Chicken, egg, egg products	9	1	4	1	1**	-	-	-	-	-	4	<b>20</b>
Mayonnaise	3	-	-	2	-	-	-	-	-	-	5	<b>10</b>
Other poultry	-	-	-	1	-	-	-	-	-	-	2	<b>3</b>
Soups,gravies	-	-	-	-	1	-	-	1	-	-	1	<b>3</b>
Fancy cakes/Ice cream	1	1	-	-	1	-	-	-	-	-	3	<b>6</b>
Meat	6	1	4	5	-	2	3	-	-	-	17	<b>38</b>
Fish	3	-	-	-	-	-	3	-	-	-	4	<b>10</b>
Water	-	-	-	-	-	-	-	-	-	-	2	<b>2</b>
Vegetable products	3	4	2*	3	2	-	1	2	-	-	9	<b>26</b>
Unknown	9	8	2	3	1	-	1	3	2	54	<b>83</b>	
<b>TOTAL</b>	<b>35</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>6</b>	<b>2</b>	<b>8</b>	<b>6</b>	<b>2</b>	<b>107</b>	<b>211</b>	

\* 1 outbreak: *Staphylococcus*+*C.perfringens*

\*\* *Staph.*+*E.coli*+*Giardia*

\*\*\* *Salmonella*+*Staphylococcus*

Figure IL 3



### 3.3 Place where food was contaminated, acquired or consumed

#### 3.3.1 Place where food was contaminated

Table IL 5

Foodborne outbreaks by place where food was contaminated and causative agent  
ISRAEL 1993 - 1998

	<i>Salmonella</i>	<i>Shigella</i>	<i>Staph. aureus</i>	<i>Staph. + E. coli</i>	<i>Staph. + E. Coli + Giardia</i>	<i>Staph. + Salmonella</i>	<i>Staph. + C.perfr.</i>	<i>Trichinella</i>	<i>E.coli</i>	<i>C.perfringens</i>	Other chem comp.	Hepatitis A	Other bacteria	Unknown	Total
Restaurant	8	-	2	2	-	-	-	-	1	3	-	-	1	18	35
Canteen	-	1	4	-	-	-	-	-	2	2	1	-	-	3	13
School, kindergarten	6	8	1	1	-	-	-	-	2	1	-	-	-	8	27
Lake/sea	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
Medical care facility	2	-	1	-	-	-	-	-	1	5	-	1	-	3	13
Mass catering	3	2	3	2	-	-	1	-	-	1	1	-	-	12	25
Private home	8	4	2	-	-	1	-	2	-	-	-	1	-	19	37
Institute	1	-	-	-	1	-	-	-	-	2	-	-	-	-	4
Camping	1	-	-	-	-	-	-	-	-	-	-	-	-	1	2
Kibbouts	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Various places	2	-	-	-	-	-	-	-	-	1	-	-	-	3	6
Other	2	1	1	-	-	-	-	-	-	-	4	-	-	39	47
<b>TOTAL</b>	<b>34</b>	<b>16</b>	<b>14</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>15</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>105</b>	<b>211</b>

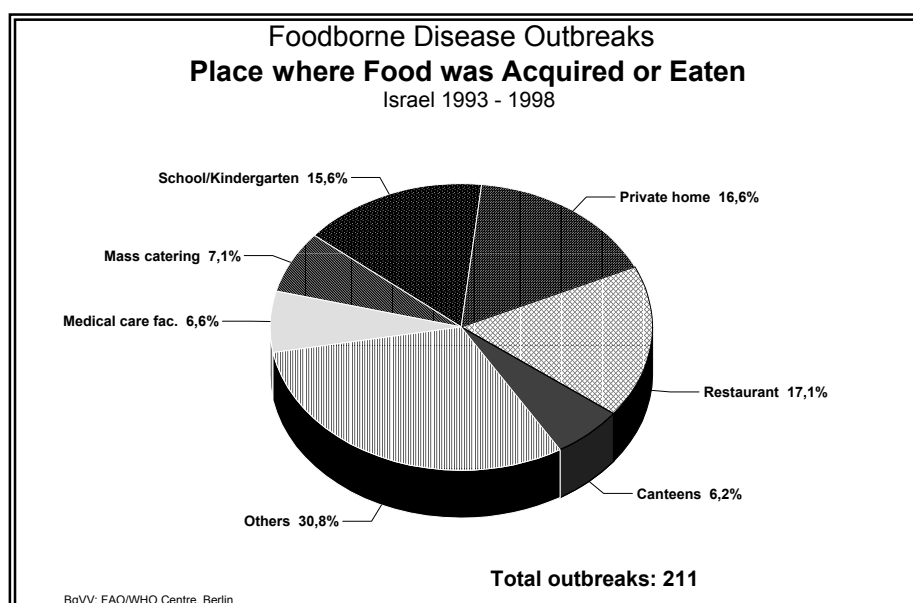
3.3.2 Place where food was acquired or eaten

Table IL 6

**Foodborne outbreaks  
by place where food was acquired or eaten and causative agents  
ISRAEL 1993 - 1998**

	<i>Salmonella</i>	<i>Shigella</i>	<i>Staph. aureus</i>	<i>Staph. +E. coli</i>	<i>Staph. +E. Coli +Giardia</i>	<i>Staph. +Salmonella</i>	<i>Staph. +C.perfr.</i>	<i>Trichinosis</i>	<i>E.coli</i>	<i>C.perfringens</i>	Other compounds	Hepatitis A	Other bacteria	Unknown	<b>Total</b>
Restaurant	8	1	2	2	-	-	-	-	1	3	-	-	1	18	<b>36</b>
Canteen	-	1	4	-	-	-	-	-	1	1	-	-	-	6	<b>13</b>
School, kindergarten	5	10	3	2	-	-	-	-	2	1	-	1	-	9	<b>33</b>
Medical care facility	2	-	1	-	1	-	-	-	1	5	-	1	-	3	<b>14</b>
Mass catering	3	1	2	1	-	-	1	-	-	1	2	-	-	4	<b>15</b>
Private home	6	2	2	-	-	1	-	2	-	-	1	-	-	21	<b>35</b>
Institute	1	-	-	-	-	-	-	-	-	2	-	-	-	1	<b>4</b>
Picnic	3	1	-	-	-	-	-	-	-	-	-	-	-	2	<b>6</b>
Kibbouts	1	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>1</b>
Various places	2	-	-	-	-	-	-	-	-	1	-	-	-	3	<b>6</b>
Other	3	-	-	1	-	-	-	-	-	-	4	-	-	40	<b>48</b>
<b>TOTAL</b>	<b>34</b>	<b>16</b>	<b>14</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>14</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>107</b>	<b>211</b>

Figure IL 4



**WHO Surveillance Programme for Control of Foodborne Infections and Intoxications in Europe**  
**7th Report**

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**3.4 Contributing factors**

Table IL 7

**Foodborne outbreaks by contributing factors**  
**ISRAEL 1993 - 1998**

<i>Contributing factor</i>	<b>Year</b>						<b>1993-1998</b>	
	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	No.	%
<b>Temperature misuse</b>	<b>21</b>	<b>21</b>	<b>20</b>	<b>28</b>	<b>34</b>	<b>23</b>	<b>147</b>	<b>62.6</b>
Inadequate refrigeration	7	4	6	20	25	12	74	31.5
Inadequate hot holding	4	4	1	-	4	5	18	7.7
Inadequate reheating	1	1	2	2	1	4	11	4.7
Inadequate cooking	7	1	1	2	2	1	14	6.0
Inadequate cooling after heat processing	-	-	-	-	2	-	2	0.8
Improper storage	2	11	6	3	-	1	23	9.8
Preparation too early in advance			4	1	-	-	5	2.1
<b>Raw material</b>	<b>3</b>	<b>3</b>	-	<b>2</b>	<b>5</b>	<b>6</b>	<b>19</b>	<b>8.1</b>
Unsafe source	1	2	-	-	2	3	8	3.4
Use of contaminated ingredients in an uncooled product	-	-	-	2	3	1	6	2.6
Addition of toxic chemical or natural toxicant	2	1	-	-	-	2	5	2.1
<b>Environmental factors</b>	<b>19</b>	<b>23</b>	<b>9</b>	<b>9</b>	<b>6</b>	<b>3</b>	<b>34</b>	<b>14.4</b>
Contamination by infected person	7	9	-	1	-	1	18	7.6
Contaminated equipment	5	9	2	-	-	-	16	6.8
<b>Unknown</b>	<b>7</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>2</b>	<b>35</b>	<b>14.9</b>
<b>Total factors*</b>	<b>43</b>	<b>47</b>	<b>29</b>	<b>39</b>	<b>45</b>	<b>32</b>	<b>235</b>	<b>100</b>

\* The total of contributing factors exceeds the number of foodborne disease outbreaks because in some outbreaks it was more than one factor identified.

Figure IL 5

