



ITALY (ITA)

Population: 57.2 million (1994)

Area: 301 225 km²



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

The Italian National Health Service (*Servizio Sanitario Nazionale*) is based on 196 Local Health Units (*Aziende Sanitarie Locali*), in charge of delivering primary health care including prevention and control of communicable diseases. The Local Health Units are geographically and administratively grouped into 20 regions.

Foodborne disease control is carried out by the Local Health Units, in collaboration with Public Health Laboratories (*Presidi Multizonali*) for the microbiological and clinical assays.

Regarding foodborne disease control, the Ministry of Health (*Ministero della Sanità*) has tasks of general coordination and is the legally responsible organism for surveillance at national level.

The National Health Institute (*Istituto Superiore di Sanità*, ISS) in Rome is the technical and scientific body of the National Health Service. At ISS there are a Laboratory for Food, which undertakes research in hygiene, microbiology, toxicology and biochemistry and a Laboratory of Epidemiology and Biostatistics, which undertakes epidemiological investigations collaborating with the regional and local authorities. ISS also organizes specialized training for personnel of the National Health Service.

1.1 Investigations of foodborne disease outbreaks

The Public Hygiene Service (*Servizio di Igiene Pubblica*) of the local health unit is responsible for investigating foodborne outbreaks. Environmental investigation are the task of a specialized regional agency (ARPA).

Common investigation procedures include food sampling, diagnostic assays and, when suitable, legal action.

In each Local Health Unit there is, beside the Public Health Hygiene Service, a Veterinary Service (*Servizi Veterinari*). This does not necessarily mean that collaboration between services is the rule also because there are few administrative links between them. Laboratory investigations for the veterinary services are usually performed by specialized Veterinary Laboratories (*Istituti Zooprofilattici*) spread across the country.

1.2 Notification system

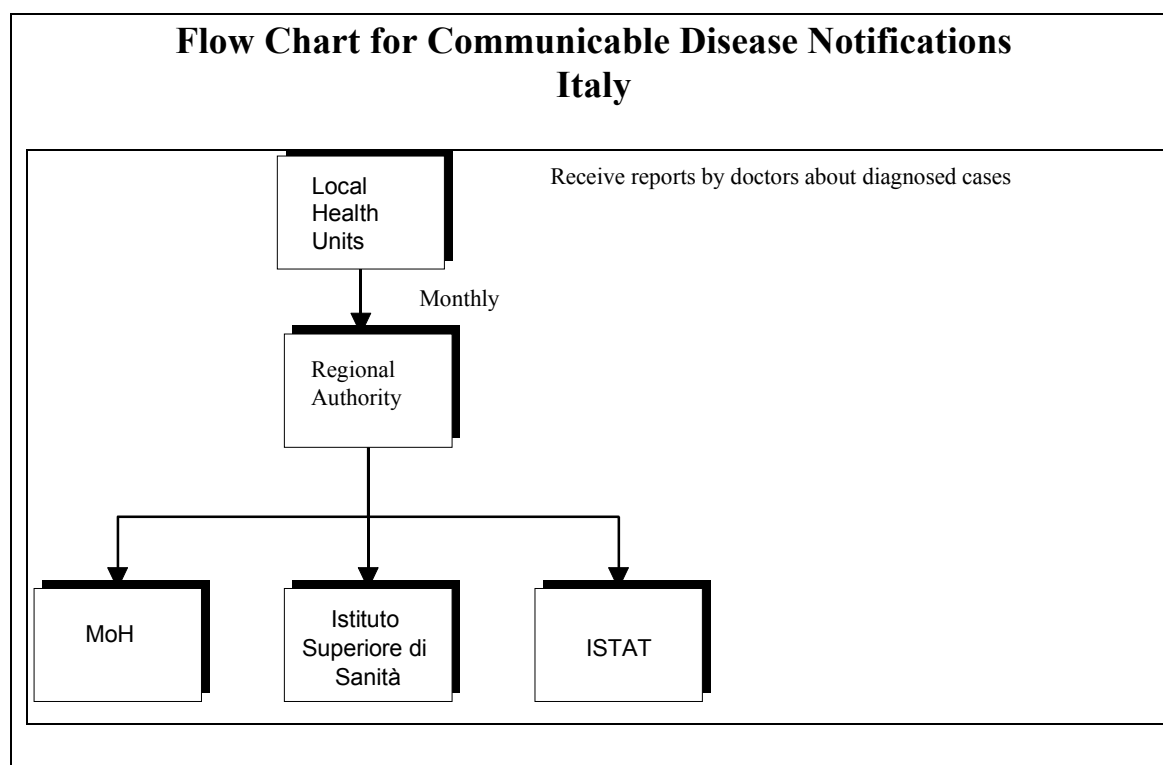
All communicable diseases are notifiable in Italy. The official statutory systems (revised in 1991) lists the diseases in five classes of different notification methods. Class II includes the commonest communicable diseases and account for 90% of all the notifications. Diseases listed in class I, II and III are to be notified on individual forms, but outbreaks are to be reported in class IV on a unique form collecting data (when available) on the number of exposed subjects, number of cases, etiological agent and vehicle. Feed-back at national level is annually provided by the Central Institute of Statistics (*Istituto Centrale di Statistica*, ISTAT) and by the Ministry of Health. An experimental computerised system for statutory notifications in class II has been set up by ISS and data from the participating regions are available at the following web site (www.simi.iss.it)

A number of notifiable diseases in class II is usually transmitted by food, e.g. typhoid fever, brucellosis, paratyphoid infections, other salmonellosis, botulism and some other food poisonings.

Concerning foodborne diseases, gross underreporting is suspected and the differences among the geographical regions probably reflect the degree of interest in reporting.

1.3 Salmonella surveillance system

Salmonella surveillance is carried out using a network of laboratories. Since 1999 the network includes 29 laboratories and data are included in the Enter-Net program and coordinated in Italy by ISS. Information on each identified and serotyped Salmonella strains from various sources (humans, animals, food) are recorded on a common data base.



2. Statutory notification

Table IT 1

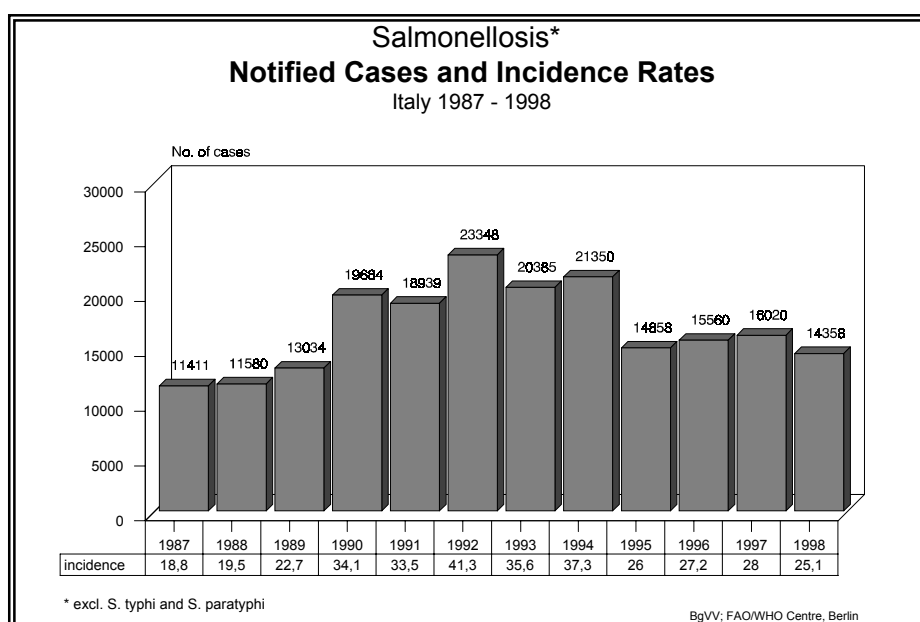
**Notified cases of foodborne diseases (individually notified cases)
ITALY 1993 – 1998**

Disease	1993	1994	1995	1996	1997	1998
	Number of cases					
Salmonellosis	20385 ²	21350 ²	14858 ²	15560 ¹	16020 ²	14358
<i>Incidence rate</i>	35.6	37.3	26.0	27.2	28.0	25.1
Botulism	39	28	41	58	43	33
<i>Incidence rate</i>	0.1	0.0	0.1	0.1	0.1	0.1
Listeriosis	48	31	29	40	68	45
<i>Incidence rate</i>	0.1	0.1	0.1	0.1	0.1	0.1
Brucellosis	1119 ²	1314 ²	1370 ²	1896 ¹	1681 ²	1461
<i>Incidence rate</i>	2.0	2.3	2.4	3.3	2.9	2.6
Hepatitis A	3308	3531	1434	8651	9952	2962
<i>Incidence rate</i>	5.8	6.2	2.5	15.1	17.4	5.2
Trichinellosis	4	0	23	13	0	92
<i>Incidence rate</i>	0.0	0.0	0.0	0.0	0.0	0.2

¹ Source of information: BGVV, 1996. Trends and sources of Zoonotic agents in animals, feeding stuff, food and man in the European Union in 1996.

² Source of information: EU, 1997. Trends and sources of Zoonotic agents in animals, feedstuffs, food and man in the European Union in 1997. Country Reports. Document No. VI/8495/98 –Rev. 2 of the European Commission.

Figure IT 1



2.1 Salmonellosis

Table IT 2

Isolated Strains of Salmonella ITALY 1993 - 1997

Serotype	1993	1994	1995	1996	1997	Total
<i>S. Enteritidis</i>	4049	5435	4589	4044	3453	21570
<i>S. Typhimurium</i>	1250	2236	2831	2239	2241	10797
<i>S. Infantis</i>	233	386	506	273	226	1624
<i>S. Agona</i>	45	61	101	54	21	282
<i>S. Bredeney</i>	216	401	308	154	152	1231
<i>S. Derby</i>	322	505	539	360	204	1930
<i>S. Virchow</i>	188	90	113	43	59	493
<i>S. Hadar</i>	23	108	68	44	71	314
<i>S. Panama</i>	191	358	255	186	65	1055
<i>S. Saintpaul</i>	14	49	36	28	18	145
<i>S. Montevideo</i>	16	18	52	20	7	113
<i>S. Newport</i>	27	56	54	20	25	182
<i>S. Anatum</i>	72	92	132	71	212	579
<i>S. London</i>	53	122	94	148	97	514
<i>S. Ohio</i>	18	26	19	15	42	120
<i>S. Muenchen</i>	68	158	128	94	114	562
<i>S. Arizona</i>	2	0	3	4	4	13
<i>S. Tennessee</i>	1	2	5	3	0	11
<i>S. Bareilly</i>	0	0	1	1	3	5
<i>S. Oranienburg</i>	2	2	6	0	0	10
Total	6790	10105	9840	7801	7014	41550

Note: In 1998 the system has been revised and no data is available for that year.

Figure IT 2

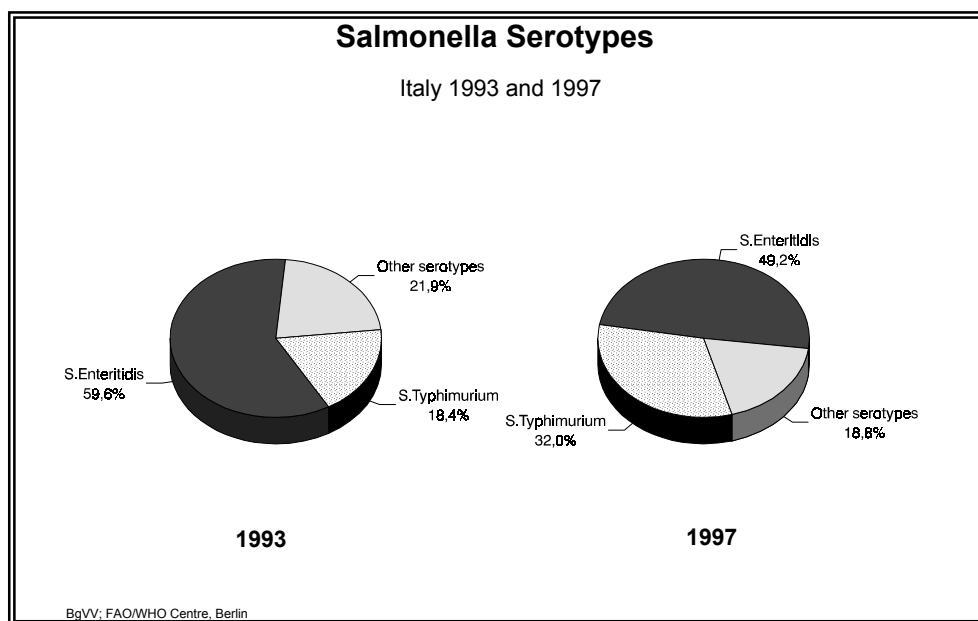


Table IT 3

**Salmonellosis - Age distribution of the notified cases
(not from the above reported strains)
ITALY 1993 – 1998**

Age	Number of cases					
	1993	1994	1995	1996	1997	1998
total	20385	21350	14858	15560	16020	14358
1-14 year	9572	11803	8188	8759	9123	8340
15-24 years	1872	1877	1252	1265	1290	1046
25-64 years	5547	5666	4011	3959	4108	3453
> 65 years	1733	1902	1317	1509	1410	1300
unknown	1478	102	90	68	89	219

3. Epidemiologically investigated incidents

Analysis has been performed on computerised data, available from 1998.

3.1 Causative agents

The following data are from the experimental computerised system (SIMI) at ISS, including outbreak notifications (Class IV). The current database includes only outbreaks (233) in 1998 for 9 regions.

Table IT 4

Foodborne disease outbreaks by causative agents
ITALY 1998

Causative Agents	outbreaks
<i>Bac. cereus</i>	1
Cl. botulinum	5
<i>Salmonella</i> total (other than <i>S. typhi</i> and <i>S. Paratyphi</i>)	112
<i>S. Typhimurium</i>	8
<i>S. Enteritidis</i>	47
<i>S. typhi</i>	2
S. paratyphi	10
<i>Staph. Aureus</i>	4
<i>Listeria</i>	1
<i>E. coli</i>	2
VIRAL HAV	11
Other	30
OVERALL TOTAL	233

3.2 Incriminated foods

The following data are from the experimental computerised system (SIMI) at ISS. The current database includes only outbreaks since 1998 for 9 regions

Table IT 5

Foodborne disease outbreaks - Incriminated foods
ITALY 1998

Food	No.	%
Cheese	3	3.6
Egg and egg products	1	1.2
Foods containing raw eggs	39	46.4
Ice cream	2	2.4
Cakes/Pastry/Baking premises	19	22.6
Meat and meat products	7	8.3
Fish	2	2.4
Shellfish	6	7.1
Mushrooms	4	4.8
Drinking water	1	1.2
TOTAL	84	100

4. Comments

A very large outbreak of listeriosis (1566 cases) occurred in 1997 and it has been recently described on the New England Journal of Medicine 27 April, 2000, 342, 17:1236. Those cases were not included in the notifications because the etiology was identified after extensive investigation.

5. Additional Information

The Istituto Superiore di Sanità (ISS) publishes a yearly bulletin with data on infectious diseases, including foodborne infections and intoxications that can be found at: <http://www.sanita.it/malinf/BollEpid/indice.htm>.

For further reference on national and international data on foodborne diseases please visit the web page <http://www.who.it/docs/fdsaf/fddata.htm>.