



RUSSIAN FEDERATION (RUS)

Population: 147.4 million

Area: 17 million km²



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1. General information

Foodborne diseases, in cases of isolated diseases, are not subject to special registration in Russian Federation. These diseases are included in monthly and annual reports in the group of diarrheal diseases with identified and unidentified bacterial and viral causative agents (*Salmonella* spp., *Shigella* spp., *S.aureus*, *E.coli*, *Enterobacter* spp., *B.cereus*, *Proteus*, *V. parahaemolyticus*, enteroviruses, rotaviruses and others).

Foodborne bacterial and viral outbreaks with number of 5 persons and more are the subject of special registration. All cases of isolated diseases, which are caused by *Cl. botulinum* and its toxins, chemical agents and the lethal cases are the subject of special registration as well.

Computers are used in the registration of outbreaks or individual foodborne diseases or recording data at local level. Standard forms of reports are sent to the departments of Ministry of Health by phone, Teletype, fax, post or E-mail.

2. Statutory notification

The source of the following data are the official Reports of the statistical and analytical materials of the Federal Centre for State Sanitarian Surveillance and the Ministry of Health as well as of Local Centres in the subjects of Russian Federation.

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

Country Reports: *RUSSIAN FEDERATION 1993 – 1998*

Table RU 1

Salmonellosis, bacterial dysentery, other intestinal infections and food intoxications
Statutory reported cases and incidence rate
RUSSIAN FEDERATION 1992-1998

	Year						
	1992	1993	1994	1995	1996	1997	1998
Salmonellosis							
No. of cases	118 787	101 152	103 050	86 025	65 312	60 180	59 576
Incidence rate	80.1	68.3	69.6	58.1	44.2	41.0	40.7
Bacterial dysentery (Shigellosis)							
No. of cases	150 422	189 129	220 461	273 288	123 126	84 104	114 902
Incidence rate	101.4	127.7	149.0	184.7	83.3	57.2	78.4
Other intestinal infections with identified agents							
No. of cases			no data			91 491	104 951
Incidence rate						62.3	71.6
Other intestinal infections with non identified agents							
No. of cases			no data			358 200	400 544
Incidence rate						243.8	273.3
Foodborne intoxications§							
Total food intoxications/	1 654/	5 811/	6 999/	5 389/	4 944/	5 721/	5 711/
Bacterial intoxications*	1 199	4 721	5 904	3 615	4 042	3 989	3 989
Total diseased people**/	3 644	7 188/	8 282/	8 666/	5 465/	6 861/	6 994/
Bacterial intoxication and toxi-infection*		5 823	7 034	5 348	4 412	4 913	4 757

* Bacterial intoxications include only two type of diseases - caused by foods contaminated with *S.aureus* enterotoxins and toxins of *Cl.botulinum*. Bacterial toxic-infections, it includes the diseases caused by the potentially pathogenic microorganisms, such as *B.cereus*, *Proteus*, *Klebsiella*, *Citrobacter*, *Cl.perfringens*, *Vibrio parahaemoliticus* and others.

** Intoxicated by bacteria, chemicals, mushrooms, etc.

Table RU 2

Botulism - Statutory reported cases and incidence rate
RUSSIAN FEDERATION 1992-1998

Year	No. of cases	No. of persons ill (all/children)	Mortality (all/children)
1992	284	497 / 52	34 / 6
1993	346	521 / 28	50 / 4
1994	333	577 / 56	44 / 2
1995	394	645 / 75	47 / 4
1996	329	518 / 49	42 / 1
1997	336	491 / 29	43 / 1
1998*	374	501	41

* Source of information: International Food Safety News 9 (1/2)

Figure RU 1

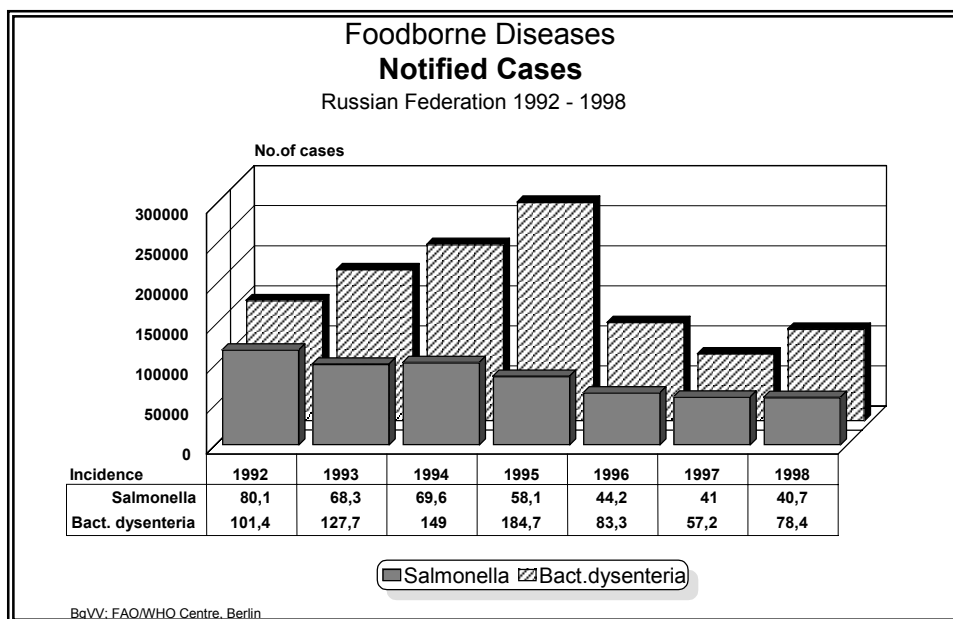
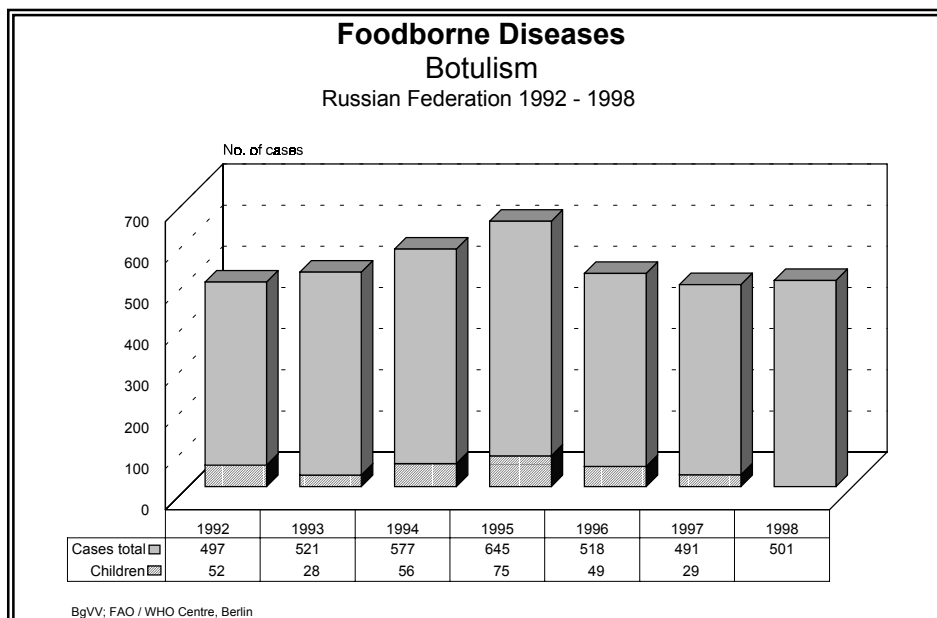


Figure RU 2



WHO Surveillance Programme for Control of Foodborne Infections and Intoxications in Europe
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3. Epidemiologically investigated incidents

Table RU 3

Foodborne diseases - Outbreaks*
RUSSIAN FEDERATION 1992-1998

Agent	No. of out-breaks	No. of persons ill/ children ill	Major causative agents	Type of Food	Place of origin and/or consumpt.
1992					
Bact. foodborne intoxications	35	772			
1993					
Bact. foodborne intoxications:	28	890		Ready dishes, salads, fermented milk, milk products, undefined products	
<i>S.aureus</i>	3	112			
Enterobacteria	4	85			
1994					
Bact. foodborne intoxications	50	1660			
Bacterial dysentery	21	1537/612	<i>S.sonnei</i> 65% <i>S.flexneri</i> 31% Others 4 %	Contaminated ready dishes ** 43% Dairy products 20% Undefined products 38%	Canteens in hospitals, children's clinics, schools, camps 71,4% Restaurants, cafes 14,3% Dairy plants 14,3%
1995					
Food intoxications:	25	1980		Ready foods, salads, fermented milk, milk products, undefined products	
<i>S.aureus</i>	1	53			
Enterobacteriaceae	4	44			
<i>B.cereus</i>	4	132			
Bacterial dysentery	56	7313/ 441	<i>S.sonnei</i> 70% <i>S.flexneri</i> 25% Others 5 %	Contaminated cooked dishes** 78,6% Dairy products 8,9% Undefined products 12,5%	Canteens in hospitals, children's clinics, schools, camps, kindergartens 80,3% Restaurants, cafes 10,7% Dairy plants 8,9%

* with number of 5 and more persons

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Agent	No. of out-breaks	No. of persons ill/ children ill	Major causative agents	Type of Food	Place of origin and/or consumpt.
1996					
Food intoxications:	19	527		Cooked dishes, salads, fermented milk, milk	
<i>S.aureus</i>	1	25		products, undefined products	
Enterobacteria	4	144			
<i>B.cereus</i>	3	152			
Salmonellosis (6 months: 07.–12.)	11	987/269	<i>S.Enteritidis</i> 81,8 % <i>S.Typhimurium</i> 18,2 %	Contaminated cooked dishes** 63,6% Poultry products 9,1% Finished products 9,1% Undefined products 1,82 %	Canteens in hospitals, children's clinics, schools, camps, kindergartens 81,8% Restaurants, cafes, 9,1% Individual consumers 9,1%
Bacterial dysentery	20	1394/ 998	<i>S.sonnei</i> 70% <i>S.flexneri</i> 25% Others 5 %	Contaminated cooked dishes** 70% Dairy products 20 % Undefined products 10%	Canteens in hospitals, children's clinics, kindergartens schools,camps 80 % Restaurants, cafes abs. Dairy plants 20 %
1997					
Food intoxications:	24	1002		Cooked dishes, fermented milk, undefined products, salads	
<i>S.aureus</i>	9	471			
Enterobacteria	3	113			
Salmonellosis	22	1019/601	<i>S.Enteritidis</i> 72,7 % <i>S.Typhimurium</i> 18,2 % Others 18,2%	Contaminated cooked dishes ** 45,5% Poultry products 18,2% Finished products 4,5% Undefined products 31,8 %	Canteens in hospitals, kindergartens children's clinics, schools, camps 63,6% Restaurants, cafes, 9,1% Individual consumers 27,3%

* with number of 5 and more persons

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Agent	No. of out-breaks	No. of persons ill/ children ill	Major causative agents	Type of Food	Place of origin and/or consumpt.
1997 (continued)					
Bacterial dysentery	13	1134/ 958	<i>S.sonnei</i> 54% <i>S.flexneri</i> 46% Others 0 %	Contaminated ready dishes ** 69,2% Dairy products 15,4% Undefined products 15,4%	Canteens in hospitals, kindergartens children's clinics, schools, camps 85,0% Restaurants, cafes 0% Dairy plants 15,0%
1998					
Food intoxications (10 months: 01-10.98)	11	458		Cooked foods, fermented milk, Undefined products, salads	Children's clinics, schools, kindergartens, camps
Salmonellosis	17	860/493	<i>S.Enteritidis</i> 52,9 % <i>S.Typhimurium</i> 17,6 % Others 29,4%	Contaminated ready dishes ** 41,2% Poultry products 47,1% Undefined products 11,8 %	Canteens in hospitals, kindergartens children's clinics, schools, camps 47,1% Restaurants, cafes, 5,9% Individual consumers 47,1%
Bacterial dysentery	18	878/432	<i>S.sonnei</i> 44% <i>S.flexneri</i> 39% Others 17 %	Contaminated ready dishes** - 72,2% Dairy products 11,1% Undefined products 16,6%	Canteens in hospitals, kindergartens children's clinics, schools, camps 66,7% Restaurants, cafes 16,7% Dairy plants 11,1%

* with number of 5 and more persons

** ready-to-eat dishes - milk, meat, vegetable and fish dishes, salads, cream- and filled cakes, etc.

4. Additional Information

During the last years the amount of food intoxications (toxi-infections) from products made in the kitchens of clinics, hospitals, rest-houses, etc. has increased while the number of cases from products made in restaurants and cafe, has been reduced.

Most frequent vehicles of transmission of pathogens are ready to eat dishes and salads and most frequent etiological agents are *S. aureus* and potentially-pathogenic microflora. This reflects the unfavourable sanitarian state of the objects in contact with foods in the collective kitchens.

Salmonella Enteritidis played a major role as a causative agent in foodborne salmonellosis. In 1996-1998 69,1% of all cases were associated with this serotype. *Salmonella* Typhimurium followed (18%), and the rest were other serotypes (15,8%). These foodborne outbreaks were associated with different contaminated ready to eat dishes, including dishes with eggs, poultry products (meat, mince), eggs.

Shigella sonnei played a major role as a causative agent in foodborne bacterial dysentery; accounting for up to 60,6 % of cases during 1994-1998. *Shigella flexneri* was responsible for 33,2 % of the cases. These foodborne outbreaks were associated with ready to eat dishes, contaminated by personnel (carriers) - in 66 % of cases. Dairy products of dairy plants - in 15% of cases. As in previous years, serious hygienic defects during processing, preparation and storage of food, as well as poor hygiene of personnel handling food and cultures for fermented milk were the main contributing factors for outbreaks.