



FOODBORNE DISEASES 2001-2004

No. 51, 2005

Foodborne diseases are notifiable on form 1515 on clinical diagnosis and simultaneous suspicion of a particular meal or foodstuff as the cause of disease. Notification should not await microbial diagnosis.

Notified cases

In the period 2001-2004, a total of 2723 cases of foodborne disease were notified. Of these, 2246 were infected in Denmark and 476 outside of Denmark, [table 1](#). A total of 89% of cases of possible foodborne disease were not notified until an aetiological diagnosis was available. Thus, only 11% of all cases were notified according to the notification system criteria: clinical diagnosis and simultaneous suspicion of a particular meal or foodstuff.

Delay

For cases acquired in Denmark, the median number of days from onset of disease to receipt of the notification was seven days on unstated aetiology and 16 days where aetiological diagnosis appeared from the notification form.

Outbreaks

Outbreaks may be divided into household outbreaks, with two or more cases of disease in the same household, or general outbreaks, which include two or more persons from more than one household. The number of notified outbreaks varied from year to year. As in previous years, most outbreaks were notified when an aetiological diagnosis for the patient's symptoms was available, [table 2](#).

Aetiology

Out of 2420 cases with known aetiology, 1206 (50%) were caused by Salmonella, 1044 (43%) by Campylobacter, and 47 (2%) by Yersinia, [table 3](#). In 45 cases, toxin was stated as the cause, of these, 38 cases were caused by a staphylococcus outbreak in 2003. Seven trichinosis cases were outbreak related, EPI-NEWS 14/04.

Table 2. Number of notified outbreaks of foodborne diseases according to whether aetiology was stated, 2001-2004

Aetiology	General outbreaks				Household outbreaks			
	2001	2002	2003	2004	2001	2002	2003	2004
Stated	67	38	67	38	81	46	23	24
Not stated	26	17	37	8	20	14	2	5
Total	93	55	104	46	101	60	25	29

Table 3. Number of notifications by aetiological agent, 2001-2004

Agent	2001	2002	2003	2004	Total
Salmonella Typhimurium	128	59	66	69	322
Salmonella Enteritidis	216	143	84	76	519
Other salmonella serotypes	145	81	62	77	365
Campylobacter spp.	290	271	204	279	1044
Yersinia enterocolitica	8	13	10	16	47
Toxin	1	2	38	4	45
Virus	0	4	1	0	5
Trichinella	0	0	0	7	7
Other or more agents	18	12	31	5	66
Total	806	585	496	533	2420

Commentary

The main purpose of the clinical notification system is to make early contact tracing possible, thus preventing further cases. It is therefore important that the notifications be submitted promptly. Any delay will reduce the possibility for withdrawal of a suspected foodstuff. Also, there is great uncertainty on the food recall when an investigation is carried out on a late stage, and the possibility of analyzing leftovers has often been missed.

A data linkage between the registry of gastrointestinal infections and the clinical notifications showed that the median time from disease onset to specimen taking was four days. Assuming that a case can be notified by contacting the physician on the day of the specimen taking at the very earliest, the median delay will be three days for case without aetiological diagnosis and 12 days for cases notified after reception of the test results.

Another purpose of the notification system is to estimate trends over time. The decrease in salmonella

species, which are presented in [table 3](#), can roughly be recovered in the gastroenteritis monitor on www.germ.dk, EPI-NEWS 09/05. Compared with the registry of gastrointestinal infections, the number of notified cases corresponds to 15% of Salmonella, 6% Campylobacter and 5% Yersinia infections. Regarding virus, the proportion is probably even lower, yet unknown. There may be more explanations to these discrepancies: It may be possible that reporting physicians are more likely to consider Salmonella infection a foodborne disease rather than other aetiologies, or there may be increased attention on foodstuff causing salmonella infection. Finally, the clinical picture may be important in relation to the notification frequency. (C. Kjelsø, K. Mølbak, Department Of Epidemiology)

MERRY CHRISTMAS AND HAPPY NEW YEAR

The staff in the Department of Epidemiology wishes readers a merry Christmas and a happy new year.

21 December 2005

Table 1. Notified cases of foodborne diseases, by place of infection and whether aetiology was stated, 2001-2004. Percentage in ()

Place of infection	Aetiology	2001	2002	2003	2004	Total
In DK	Stated	674 (89%)	482 (87%)	387 (85%)	426 (89%)	1969 (88%)
	Not stated	80 (11%)	74 (13%)	68 (15%)	55 (11%)	277 (12%)
	Total	754 (100%)	556 (100%)	455 (100%)	481 (100%)	2246 (100%)
Outside DK	Stated	132 (95%)	103 (95%)	109 (93%)	107 (96%)	451 (95%)
	Not stated	7 (5%)	6 (5%)	8 (7%)	4 (4%)	25 (5%)
	Total	139 (100%)	109 (100%)	117 (100%)	111 (100%)	476 (100%)
Total		893	665	572	592	2722

Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2005 figures are preliminary)

Table 1	Week 50 2005	Cum. 2005 ¹⁾	Cum. 2004 ¹⁾
AIDS	0	54	46
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	1
Creutzfeldt-Jakob	0	2	8
Diphtheria	0	0	0
Food-borne diseases	14	561	609
of these, infected abroad	3	131	111
Gonorrhoea	22	486	340
Haemorrhagic fever	0	0	0
Hepatitis A	1	63	226
of these, infected abroad	1	23	61
Hepatitis B (acute)	0	31	42
Hepatitis B (chronic)	3	137	142
Hepatitis C (acute)	0	1	5
Hepatitis C (chronic)	14	308	297
HIV	11	265	302
Legionella pneumonia	0	111	103
of these, infected abroad	0	45	33
Leprosy	0	0	0
Leptospirosis	1	11	14
Measles	0	2	0
Meningococcal disease	0	82	94
of these, group B	0	38	55
of these, group C	0	22	12
of these, unspec. + other	0	21	27
Mumps	1	8	6
Neuroborreliosis	1	89	119
Ornithosis	0	20	6
Pertussis (children < 2 years)	1	141	229
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	2	4
Listeria monocytogenes	0	2	3
Streptococcus pneumoniae	0	97	99
Other aethiology	0	16	11
Unknown aethiology	0	16	15
Under registration	6	26	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	105	99
of these, infected abroad	1	83	82
Syphilis	4	123	117
Tetanus	0	2	0
Tuberculosis	13	429	389
Typhoid/paratyphoid fever	2	35	22
of these, infected abroad	1	32	20
Typhus exanthematicus	0	1	0
VTEC/HUS	7	149	149
of these, infected abroad	3	54	34

¹⁾ Cumulative number 2005 and in corresponding period 2004

Selected laboratory diagnosed infections

Number of specimens, isolates, and/or notifications received in SSI laboratories

Table 2	Week 50 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Bordetella pertussis (all ages)	9	486	1031
Gonococci	6	438	406
of these, females	0	45	49
of these, males	6	393	357
Listeria monocytogenes	1	41	39
Mycoplasma pneumoniae			
Resp. specimens ³⁾	44	1076	630
Serum specimens ⁴⁾	15	783	538
Streptococci ⁵⁾			
Group A streptococci	6	100	111
Group B streptococci	3	78	88
Group C streptococci	0	25	22
Group G streptococci	2	110	110
S. pneumoniae	23	1052	1183
Table 3	Week 48 2005	Cum. 2005 ²⁾	Cum. 2004 ²⁾
Pathogenic int. bacteria ⁶⁾			
Campylobacter	36	3547	3541
S. Enteritidis	6	625	508
S. Typhimurium	14	538	436
Other zoon. salmonella	7	535	485
Yersinia enterocolitica	3	226	212

²⁾ Cumulative number 2005 and in corresponding period 2004

³⁾ Resp. specimens with positive PCR

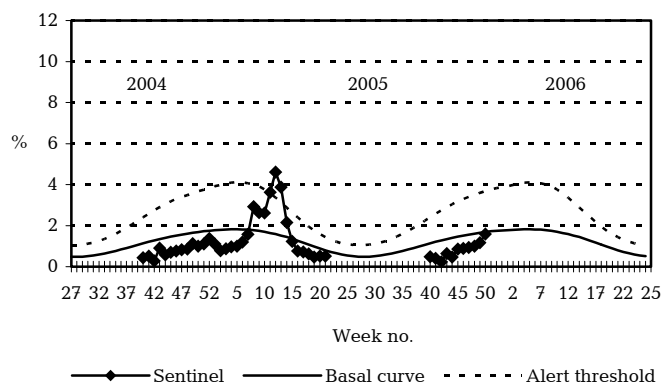
⁴⁾ Serum specimens with pos. complement fixation test

⁵⁾ Isolated in blood or spinal fluid

⁶⁾ See also www.germ.dk

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2004/2005/2006



Sentinel: Influenza consultations (as percentage of total consultations)

Basal curve: Expected frequency of consultations under non-epidemic conditions

Alert threshold: Possible incipient epidemic

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