



Shigella infection (shigellosis) is an individually notifiable disease. Findings of Shigella should also be reported from the clinical microbiological laboratories to the Department of Bacteriology, Mycology and Parasitology (ABMP) at SSI. In 2000, the Department of Epidemiology introduced a reminder procedure for individual notifications based on the data from ABMP.

### Individually notified cases

In the period 2001 to 2003, there were a total of 370 notified cases of Shigella, of these, 288 after a reminder letter. The age distribution and admission frequency are shown in [table 1](#). A total of 20% of the patients were admitted to hospital.

**Table 1. Notified cases of shigellosis 2001-2003 by age, hospital admission and place of infection**

Age (yrs)	Total notif.	Admitted	Acquired in DK
0-10	74	29	30
11-20	26	5	6
21-30	74	11	10
31-40	63	6	11
41-50	62	7	21
51-60	46	8	6
61-70	17	2	2
70+	8	6	3
<b>Total</b>	<b>370</b>	<b>74</b>	<b>89</b>

In the whole period 1994-2003, the Department of Epidemiology received a total of 1,089 notifications of shigellosis, [figure 1](#). In the same interval, 1,959 cases were notified from the laboratories.

### Mode of transmission

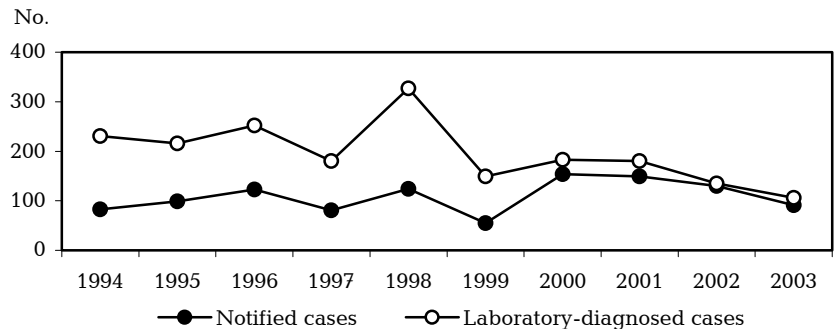
In 2001-2003, as previously, most of the cases (76%) were infected abroad. Among these, 30% were acquired in Asia (35% in India, 24% in Pakistan and 6% in Thailand, Vietnam and Syria, respectively); 27% were acquired in Africa (67% in Egypt, 5% in Morocco, and the rest mainly in countries south of the Sahara) and 19% acquired in Europe (75% in Turkey). The remaining cases were acquired in other countries. For 18% of patients infected in Denmark, personal contact was stated as source of infection, for 18% foodstuffs, while the source of infection for 64% was other or unknown.

### Laboratory-notified cases

In the period 2001-2003, there were 421 notified cases. Shigella sonnei was the most common type (287 cases), followed by Sh. flexneri (109 cases), Sh. dysenteriae (14 cases) and Sh. boydii (11 cases).

## SHIGELLOSIS 2001-2003

**Figure 1. Notified cases of shigellosis, 1994-2003**



### Resistance and treatment

Resistance and multi-resistance occur commonly among Shigella species. This resistance is often plasmid-borne and is transferred relatively easily between the bacteria. Occurrence of resistance depends on subtype and in which country the infection has been acquired. Antibiotic treatment shortens the course of illness and secretion period, EPI-NEWS 10/01.

### Outbreaks

In 2001-2003, there were three outbreaks of Sh. sonnei. In 2001, five children of different nationality were infected in a kindergarten in Brabrand. In 2002, eight Danish children in a kindergarten on the island of Bornholm were infected, and in 2003, a Danish family of five persons was infected during a holiday in Turkey. Furthermore, in 2002, there was a food-borne outbreak of Sh. flexneri type 2b. Among 17 patients with gastroenteritis, four had laboratory-confirmed infection. Raw imported exotic vegetables served on a buffet were suspected as source of infection.

### Comments

The Shigella bacterium is highly infectious and can give rise to severe infection, especially in small children and the elderly. Outbreaks occur in families, in child-care institutions or in connection with imported foodstuffs, especially vegetables, EPI-NEWS 10/01. In recent years, there has been a tendency to a declining incidence, [figure 1](#). The increase in 1998 was due to an outbreak of Sh. sonnei from imported baby corn, EPI-NEWS 25-33/98. The figure also shows that the introduction of a reminder procedure in 2000 improved the surveillance.

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### INCREASE IN M. PNEUMONIAE

Number of tests positive for Myco-

plasma pneumoniae (M. pneumoniae) by PCR has increased markedly in the four weeks from 13 September, when there was a total of 76 confirmed positive tests. This corresponds to 15.1% of the specimens examined. In the four weeks from 16 August, there were 15 (4.7%) positive, and in the four weeks from 15 September last year there were 19 (5.8%) positive tests. The high level is also demonstrated in the week commencing 11 October with 31 (19.5%) positive tests, see back page. The positive tests are not from a restricted geographic area. M. pneumoniae infections normally increase at the end of summer/autumn. This peak will as a rule even off in the course of a couple of months.

M. pneumoniae is the cause of a broad spectrum of respiratory infections, most commonly among children and younger adults. Many infections have such a mild course that they do not require treatment. Primary treatment is with a macrolide or tetracycline (adults). Both can induce the development of resistance in other bacteria. It is therefore recommended only to treat in the event of fever and/or pneumonia, and that efforts are made to make a microbiological diagnosis before treatment. It is not possible to make the diagnosis solely on the basis of clinical findings. M. pneumoniae can be detected in the acute phase of the illness in expectorate or throat swab by PCR. The diagnosis can also be made on detection of antibodies, e.g. M. pneumoniae antibody test, MPT, which becomes positive in the second week of illness at the earliest and is thus not suited as a guide to treatment. It is recommended that at least two blood specimens be taken, with an interval of 7 to 14 days.

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### INFLUENZA SURVEILLANCE

See back page. 20 October 2004

## Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, Statens Serum Institut.

Figures for 2004 are preliminary.

Table 1	Week 42 2004	Cum. 2004 <sup>1)</sup>	Cum. 2003 <sup>1)</sup>
AIDS	1	34	29
Anthrax	0	0	0
Botulism	0	0	1
Cholera	0	1	0
Creutzfeldt-Jakob	0	7	5
Diphtheria	0	0	0
Food-borne diseases	10	501	458
of these, infected abroad	2	81	99
Gonorrhoea	3	265	126
Haemorrhagic fever	0	0	0
Hepatitis A	5	183	67
of these, infected abroad	2	54	35
Hepatitis B (acute)	0	30	39
Hepatitis B (chronic)	0	119	155
Hepatitis C (acute)	0	0	6
Hepatitis C (chronic)	4	213	222
HIV	11	256	201
Legionella pneumonia	1	81	68
of these, infected abroad	0	23	20
Leprosy	0	0	0
Leptospirosis	2	5	2
Measles	0	0	0
Meningococcal disease	0	66	87
of these, group B	0	39	48
of these, group C	0	10	19
of these, unspec. + other	0	17	20
Mumps	0	2	2
Neuroborreliosis	7	77	49
Ornithosis	0	5	10
Pertussis (children < 2 years)	9	179	95
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	3	4
Listeria monocytogenes	0	1	1
Streptococcus pneumoniae	0	75	85
Other aethiology	0	5	3
Unknown aethiology	0	11	12
Under registration	3	23	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	2	63	84
of these, infected abroad	2	52	68
Syphilis	2	108	48
Tetanus	0	0	0
Tuberculosis	4	371	338
Typhoid/paratyphoid fever	0	20	28
of these, infected abroad	0	17	21
Typhus	0	0	0
VTEC/HUS	5	122	94
of these, infected abroad	0	22	25

<sup>1)</sup> Cumulative number of cases notified in 2004 and in the corresponding period of 2003

## Selected laboratory-diagnosed infections

Number of specimens, isolates, and/or notifications received at Statens Serum Institut.

Table 2	Week 42 2004	Cum. 2004 <sup>2)</sup>	Cum. 2003 <sup>2)</sup>
Bordetella pertussis (all ages)	26	791	405
Gonococci	12	317	204
of these, females	2	41	25
of these, males	10	276	179
Listeria monocytogenes	0	29	21
Mycoplasma pneumoniae			
Resp. specimens <sup>3)</sup>	31	223	153
Serum specimens <sup>4)</sup>	7	305	405
Pathogenic int. bacteria <sup>5)</sup>			
Campylobacter	107	3155	2937
S. Enteritidis	12	433	625
S. Typhimurium	6	399	374
Other zoon. salmonella	9	428	418
Yersinia enterocolitica	2	178	195
Streptococci <sup>6)</sup>			
Group A streptococci	0	100	122
Group C streptococci	0	18	18
Group G streptococci	2	86	103
S. pneumoniae	22	977	946

<sup>2)</sup> Cumulative number in 2004 and in the corresponding period of 2003

<sup>3)</sup> Resp. specimens with positive PCR

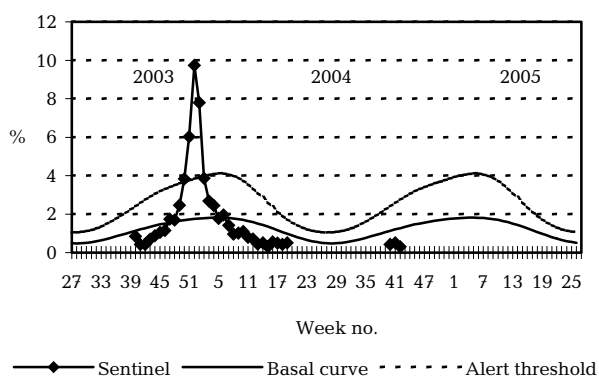
<sup>4)</sup> Serum specimens with pos. complement fixation test, MPT

<sup>5)</sup> See also [www.germ.dk](http://www.germ.dk)

<sup>6)</sup> Isolated in blood or spinal fluid

## Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2003/2004/2005



Sentinel: Influenza consultations (as percentage of total consultations)  
 Basal curve: Expected frequency of consultations under non-epidemic conditions  
 Alert threshold: Possible incipient epidemic

GP reporting to the national sentinel surveillance system commenced in week 40. Data will be presented on the EPI-NEWS backpage on a weekly basis.