



## SURVEILLANCE OF INFECTIOUS DISEASES 2006

No. 1/2, 2007

### Avian influenza

In the spring of 2006, highly pathogenic avian influenza type A H5N1 spread to Denmark. A total of 43 wild birds and the stock of a minor poultry keeper tested positive. The incident was handled in close cooperation between the relevant authorities and organisations. It remains important to underline that avian influenza is a poultry disease which is not easily transmitted to humans. The geographical areas established around the sites where infected birds were found in the spring were intended to protect the poultry industry. Avian influenza does not independently comprise a threat to public health, provided that it is handled correctly. In 2006, avian influenza continued to spread globally, and the year brought the first reports of avian influenza type A H5N1 outbreaks in Africa. Denmark is at risk of further outbreaks in 2007 – e.g. in connection with spring bird migration.

### Influenza pandemic preparedness

Even though the spread of avian influenza has not advanced the possible occurrence of a new influenza pandemic, it does underline the need for influenza pandemic preparedness. 2006 saw the publication of the Danish National Board of Health's pandemic plan. The plan lays out a framework, and the task of defining its contents has yet to be completed. One of the best ways in which societal pandemic influenza preparedness may be strengthened is by strengthening measures against seasonal influenza. Such efforts would also have an independent, positive effect on public health. Improved surveillance is one such effort, and new initiatives are in the melting pot for 2007. In collaboration with the Danish Medical Association and regional authorities, the Department of Epidemiology will undertake a surveillance project to monitor influenza-like disease activity via the Danish emergency service. The emergency service is expected to be particularly adept at detecting changes in influenza activity. The surveillance is supplemental to the existing influenza surveillance performed via the sentinel system. The continuous monitoring of population mortality is yet another initiative. Influenza is the infectious disease which most markedly influences the seasonal fluctuation of Danish population mortality.

Procuring data on excess mortality in the various age groups is essential, i.a. to assess the health effects of a pandemic.

### Measles

After more than two years without any notified measles cases, 2006 witnessed 27 notified Danish cases. Investigation of transmission modes and virus genotyping was used to establish that cases did not form part of the same measles outbreak, but were rather the result of a number of measles virus introductions which led to several minor outbreaks, EPI-NEWS 14/06. Measles probably do not occur naturally in Denmark, but the outbreaks indicate that it may be necessary to maintain specific measures against measles, if Denmark is to comply with the WHO objective to eliminate measles by 2010. A forthcoming issue of EPI-NEWS will analyse vaccination coverage.

### The childhood vaccination programme

One way to improve the coverage of the MMR vaccination programme is to move the second MMR vaccination down to pre-school children. Vaccination at an earlier age is expected to increase the coverage, e.g. because it is easier to vaccinate children aged 4-5 than children aged 12. In 2006, the Danish National Board of Health Vaccination Committee recommended that the Danish childhood vaccination programme introduces the conjugated pneumococcal vaccine which protects against invasive pneumococcal disease, EPI-NEWS 11/01. Furthermore, a health technology assessment was initiated of human papilloma virus vaccination which is, among others, the cause of cervical cancer. The assessment will form part of the decision basis when it is determined whether the vaccine will form part of a public prophylactic programme, EPI-NEWS 42-43/06. It should be stressed that the proposed revisions of the vaccination programme will generate economic costs, and that the magnitude of such changes is a political issue. No new disease vaccinations have been introduced to the childhood vaccination programme since 1993, when the Haemophilus influenzae type b vaccination was adopted.

### Hepatitis B

2006 became the first year in which nearly all pregnant women were screened for hepatitis B virus (HBV)

infection, EPI-NEWS 18/06. A preliminary report demonstrates that nearly 0.3% of the screened women are HBV carriers and that the overwhelming majority are immigrants from areas with high HBV incidence. Remarkably, only just under half of these cases were known carriers in advance. A cautious estimate is that the general screening will identify about 50 pregnant HBV carriers annually - carriers who were not known in advance, and who would not have been found by the previous inadequate selective screening. The objective of the new screening is to prevent perinatal HBV infection by immunization of the neonate. As the risk of perinatal transmission is approximately 90%, and as 25% of patients with a chronic infection will later develop chronic liver diseases, such as cirrhosis or liver cancer, the prophylactic measures are highly effective.

### MRSA

In 2006, the Danish National Board of Health published a national plan of action to control methicillin-resistant staphylococci (MRSA), EPI-NEWS 44/06. Concurrently, notification of MRSA infections and carriers was made mandatory. The background was a tenfold increase in MRSA incidence since 1999. It is important to turn this trend as a continued increase poses a threat to the Danish antibiotics policy and would be costly. The incidence remains low compared with most other European countries, and as the current annual number of new cases is below 900, there is a high probability that MRSA can be controlled.

### Globalisation

The increasing importance of "exotic" sources of infection and causes of food-borne infection is an example of the influence of globalisation on the epidemiology of infectious diseases, EPI-NEWS 01/06. The year 2006 has brought further examples, recently in the form of a major outbreak with enterotoxigenic E. coli at a grammar school in Greater Copenhagen, EPI-NEWS 51/06. 2007 will very likely bring further challenges of a similar nature.  
(K. Mølbak, Dept. of Epidemiology)

### MALARIA IN GOA, INDIA

See reverse for changes in recommendations to travellers.

## Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2007 figures are preliminary)

Table 1	Week 1 2007	Cum. 2007 <sup>1)</sup>	Cum. 2006 <sup>1)</sup>
AIDS	0	0	1
Creutzfeldt-Jakob	1	1	1
Food-borne diseases of these, infected abroad	7 1	7 1	17 1
Gonorrhoea	5	5	6
Hepatitis A of these, infected abroad	2 2	2 2	0 0
Hepatitis B (acute)	0	0	1
Hepatitis B (chronic)	7	7	5
Hepatitis C (acute)	0	0	0
Hepatitis C (chronic)	5	5	3
HIV	4	4	4
Legionella pneumonia of these, infected abroad	1 0	1 0	3 1
Leptospirosis	1	1	0
Meningococcal disease of these, group B of these, group C of these, unspec. + other	0 0 0 0	0 0 0 0	0 0 0 0
Mumps	0	0	1
Neuroborreliosis	5	5	3
Ornithosis	0	0	1
Pertussis (children < 2 yrs)	0	0	1
Purulent meningitis Haemophilus influenzae Listeria monocytogenes Streptococcus pneumoniae Other aethiology Unknown aethiology Under registration	0 0 0 0 0 3	0 0 0 0 0 3	0 0 2 0 1 -
Shigellosis of these, infected abroad	0 0	0 0	4 4
Syphilis	2	2	1
Tetanus	0	0	0
Tuberculosis	6	6	4
Typhoid/paratyphoid fever of these, infected abroad	0 0	0 0	2 2
VTEC/HUS of these, infected abroad	0 0	0 0	3 0

## Selected laboratory diagnosed infections

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

Table 2	Week 1 2007	Cum. 2007 <sup>2)</sup>	Cum. 2006 <sup>2)</sup>
Bordetella pertussis (all ages)	3	3	3
Gonococci of these, females of these, males	6 0 6	6 0 6	5 0 5
Listeria monocytogenes	2	2	1
Mycoplasma pneumoniae Resp. specimens 3) Serum specimens 4)	23 10	23 10	20 16
Streptococci 5) Group A streptococci Group B streptococci Group C streptococci Group G streptococci S. pneumoniae	5 1 1 1 46	5 1 1 1 46	5 3 3 5 78
Table 3	Week 1 2007	Cum. 2007 <sup>2)</sup>	Cum. 2006 <sup>2)</sup>
Pathogenic int. bacteria 6) Campylobacter S. Enteritidis S. Typhimurium Other zoon. salmonella Yersinia enterocolitica Verocytotoxin-prod. E.coli Enteropathogenic E. coli Enterotoxigenic E. coli	21 4 3 1 5 0 8 1	3196 560 406 676 211 142 272 243	3647 637 559 562 241 154 264 375

Table 1, notes

In 2007, none of the following cases have been reported: Anthrax, botulism, cholera, diphtheria, haemorrhagic fever, leprosy, plague, polio, rabies, rubella, and typhus exanthematicus.

1) Cumulative no. 2006 and corresponding period 2005

Tables 2 & 3, notes

2) Cumulative no. 2007 and corresponding period 2006

3) Respiratory 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](http://www.germ.dk)

## Changes in malaria prophylaxis recommendations for travellers to Goa, India

SSI has received information concerning cases of the serious *P. falciparum* malaria among travellers who have visited Goa, India. Cases have been observed among German, Swedish and Danish tourists.

The peak season for malaria in Goa is normally from March and onwards, and no information concerning malaria outbreaks have been provided, neither by the local health authorities, nor by the WHO. In the light of the current cases, it is recommended that travellers to Goa use pharmacological prophylaxis in addition to primary prophylaxis.

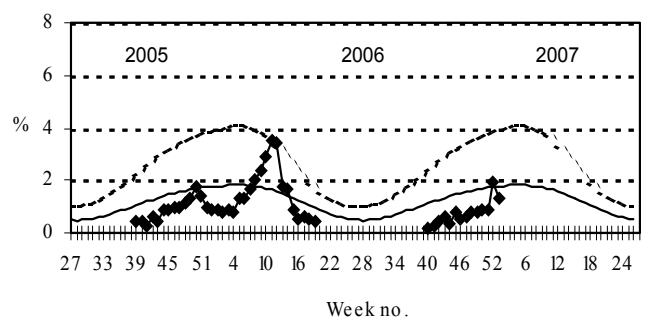
Due to the absence of information regarding resistance, Malarone, mefloquine or doxycycline is recommended.

Malarone may be handed out to travellers to facilitate self-treatment in case of malaria symptoms and following competent local medical examination.

For updated information and prophylaxis recommendations, see [www.ssi.dk/rejser](http://www.ssi.dk/rejser) (in Danish language). (Department of Epidemiology)

## Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2005/2006/2007



◆ Sentinel — Basal curve - - - - Alert threshold

Sentinel: Influenza consultations (as percentage of total consultations)

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

Alert threshold: Possible incipient epidemic