



DIRECTORATE
OF HEALTH

State Epidemiologist

EPI-ICE

Volume 1. Issue 6. July 2005.

CONTENTS:

Mumps
in Iceland p. 1

Significant
increase in
mortality
in early 2005 p. 2

Editorial Board

Dr H. Briem,
State Epidemiologist.

Ms A. Atladottir
Ms G. Sigmundsdottir
Ms S. Hauksdottir
Mr TH. Gudnason

Editor
Ms J. M. Gudnadottir

DIRECTORATE OF HEALTH STATE EPIDEMIOLOGIST

Austurströnd 5
170 Seltjarnarnes
Tel: +354 510 1900
Fax: +354 510 1920

E-mail: mottaka@landlaeknir.is
Website: www.landlaeknir.is

The contents of this newsletter
may be reproduced provided that
the source is quoted.

MUMPS IN ICELAND

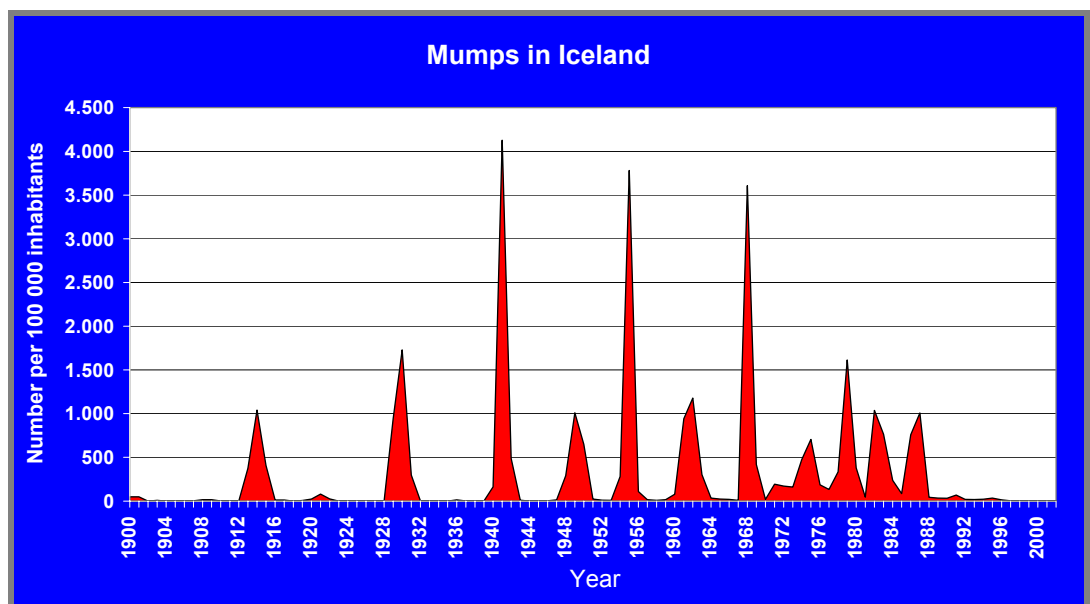
This summer three individuals in the age group 19–25 years were serologically diagnosed with mumps, which has not been diagnosed in Iceland since 1999. Two of them had never been vaccinated against mumps while the vaccination history of the third one is unknown. Shortly before the diagnosis, two of the individuals had been travelling in England where outbreaks of mumps have recently occurred among unvaccinated individuals.

Mumps is a viral illness characterised by fever, lethargy and inflammation of the salivary glands. The infection is usually harmless and subsides in a few days but can be serious mainly in adults and teenagers. Serious complications of mumps include encephalitis, meningitis, hearing loss, and sterility in adult males due to inflammation of the testicles. The diagnosis of mumps is based on typical symptoms and antibody measurements. In Iceland mumps is a reportable disease.

Vaccination against mumps was started in Iceland in 1989 with the introduction of regular MMR vaccination for 18-month-old children. In 1994 the second MMR dose was introduced for 9-year-old children but has subsequently been moved to 12-year-old children. Today, the MMR vaccination is recommended for children at 18 months and 12 years of age.

Before 1989, mumps was common in Iceland (see figure) but following the introduction of the vaccine the incidence of the disease decreased dramatically.

The State Epidemiologist would like to emphasise that vaccinations are very effective in preventing vaccine-preventable diseases. However, unvaccinated individuals can contract vaccine-preventable illnesses when travelling abroad. All individuals are therefore encouraged to keep their recommended vaccinations up to date.



SIGNIFICANT INCREASE IN MORTALITY IN THE THE BEGINNING OF 2005

An unusually high number of death announcements in the beginning of 2005 attracted quite some attention.

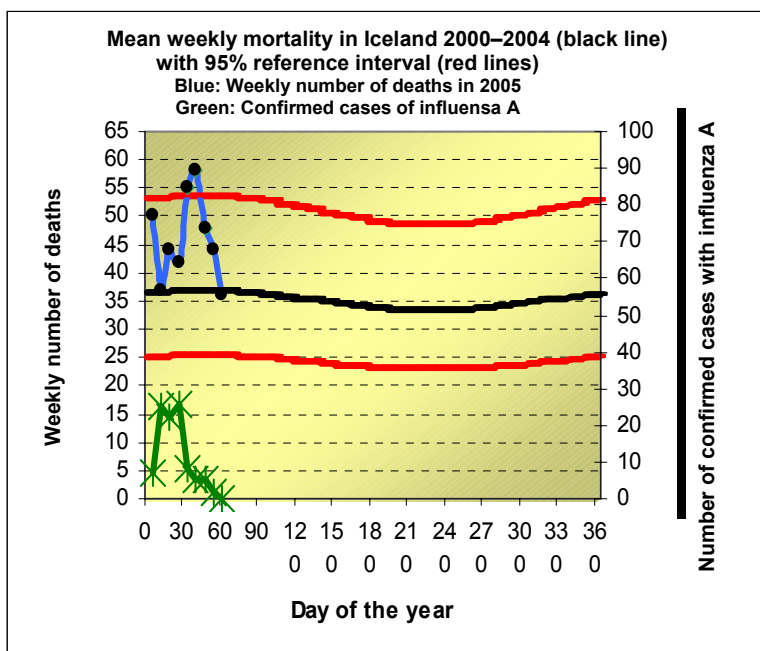
Information on the number of deaths at any given time is important for the analysis of any deviations in mortality. An examination of mortality over a few years' period makes it possible to calculate according to a computational model the average mortality and a 95% seasonal reference interval for weekly (7-day) death figures. The reference interval must be taken into account because of natural mortality fluctuations from one period to another. An analysis of statistics on the weekly number of deaths over a five-year period (2000–2004)¹ reveals a seasonal trend in the numbers, with minimum during the summer months and maximum in winter.²

There is no explanation for this seasonal trend although it is not unlikely that epidemics, which are common in winter, play some role. Every winter an epidemic of influenza breaks out in Iceland, causing illness and absence from work. The influenza is believed to be responsible for some excess mortality³ (number of deaths in excess of what is expected), something which usually arouses little attention since it generally involves old and weak people.

An unusually high number of death announcements in the

newspapers following the influenza outbreak in the beginning of 2005 attracted quite some attention. A comparison of the death figures for the first ten weeks of 2005 with an average for the same period of the last five years according to a computational model reveals that these figures are considerably higher than the average, and for the first two weeks of February they rose above the upper limit of the reference interval. Thus there was a considerable excess mortality during this period. It is impossible to say what the reason is because so far the causes of death are not available. However, the influenza raging in the beginning of 2005⁴ and peaking towards the end of January presumably played its part in the excess mortality.

The influenza raging in the beginning of 2005 presumably played its part in the excess mortality.



¹ National Registry, Statistics Iceland.

² $\exp(a+b \cdot \cos(2\pi \cdot (\text{dag}-c)/365.4) \pm 2 \cdot \text{SDres})$ [a=3.56 (95% CI: 3.54,3.58), b=0.052 (0.020,0.085), c=46.3 (10.1,82.4), SDres=0.19]. Örn Ólafsson, June 2005.

³ CDC. Prevention and control of influenza. Recommendations of the Advisory Committee on Immunization Practices. MMWR 46 (No. RR-9): 1–25, 1997.

⁴ Epi-Ice, 2005; 2: 1.