



DIRECTORATE
OF HEALTH

Chief Epidemiologist for Iceland

EPI-ICE

Volume 4. Issue 2. February 2008.

CONTENTS:

Vaccination against cervical cancer **p. 1**

HIV infection and hepatitis B in Iceland in 2007 **p. 2**

Editorial Board

Dr H. Briem,
Chief Epidemiologist

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

Editor

Ms J. M. Gudnadottir

DIRECTORATE OF HEALTH
CHIEF EPIDEMIOLOGIST
FOR ICELAND

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.

VACCINATION AGAINST CERVICAL CANCER

Human Papilloma Viruses (HPV) can cause cervical cancer and certain types are considered to be the main cause of the disease.

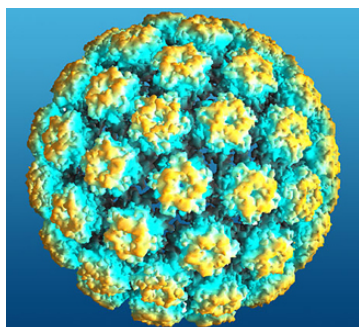
At present, two recombinant vaccines have been marketed against the HPV strains (16/18) most commonly causing cancer. The viruses can also cause less common types of cancer and some strains (6/11) cause genital warts.

These vaccines are Gardasil® from Merck and Co. Inc. and Cervarix® from Glaxo-Smith-Kline. Gardasil® is a quadrivalent vaccine containing antigens against HPV 6/11/16/18 while Cervarix® is a bivalent vaccine containing antigens against HPV 16/18. Both vaccines are immunogenic, safe and effective in preventing premalignant cervical lesions caused by HPV 16/18, which cause 60% of cervical cancer in Iceland.

In Iceland, 17 women are diagnosed every year with cervical cancer. Their mean age is 45 years and 5-year survival is 80%. Even though cervical cancer screening in Iceland is highly effective an effective HPV vaccine could contribute significantly to preventing the disease.

Cost-effectiveness

The Chief Epidemiologist recently published a report on the cost-effectiveness of



The surface of HPV. Image from an electron microscope with superimposed details from X-ray crystallography. Source: Web site of Harrison Laboratory.

introducing a general HPV vaccination programme in Iceland with the aim of reducing the incidence of cervical cancer.



The conclusion of the report is that a general vaccination of 12-year old girls would annually prevent at least nine cases of cervical cancer, two deaths and would save 17 quality adjusted life years (QUALY).

Based on specific assumptions the incremental cost-effectiveness ratio of HPV vaccination in Iceland is approximately 1.8 million ISK (approx. 24.000 USD; 19.000 EUR; 13.000 GBP) per QUALY. Therefore HPV vaccination in Iceland appears to be cost-effective.

It is important to register all HPV vaccinations centrally in order to monitor adequately the true effectiveness of the vaccines. Additionally, it needs to be emphasised that HPV vaccination can not replace the currently successful cervical cancer screening in Iceland, which must continue unchanged in the years to come.

HIV INFECTION AND HEPATITIS B IN ICELAND IN 2007

The results indicate that there was no real outbreak of HIV infection among drug abusers in 2007.

In 2007, 13 individuals were diagnosed with HIV infection in Iceland. Six were intravenous drug abusers, four were heterosexuals and three homosexuals. Seven women were diagnosed last year, which is the first year that women diagnosed with HIV infection in Iceland outnumber men.

The November 2007 issue of EPI-ICE pointed out that an unusually large number of HIV cases involved drug abusers and it was argued that there might be an outbreak among these individuals. Strainotyping of HIV diagnosed in 2007 was carried out by the Department of Virology at the Landspítali University Hospital (LUH) and revealed that only two individuals using intravenous needles turned out to be infected by the same HIV strain. These results, therefore, indicate that there was no real outbreak of HIV infection among drug abusers in 2007.

However, the spread of HIV infection among drug abusers will be subject to close monitoring because if the infection gains a foothold in this risk group, a large increase can be expected in the HIV disease in Iceland.

Hepatitis B

In 2007, an unusually large number of people was diagnosed with hepatitis B, or 45 individuals. Approximately half of them were immigrants, of whom eight had a history of intravenous drug abuse. The last epidemic of hepatitis B among drug abusers occurred in 1989–1991. In order to prevent an epidemic in this group it is important to offer vaccination against hepatitis B to those who have not been infected.

In Iceland, 17 women are diagnosed every year with cervical cancer. Their mean age is 45 years and 5-year survival is 80%.

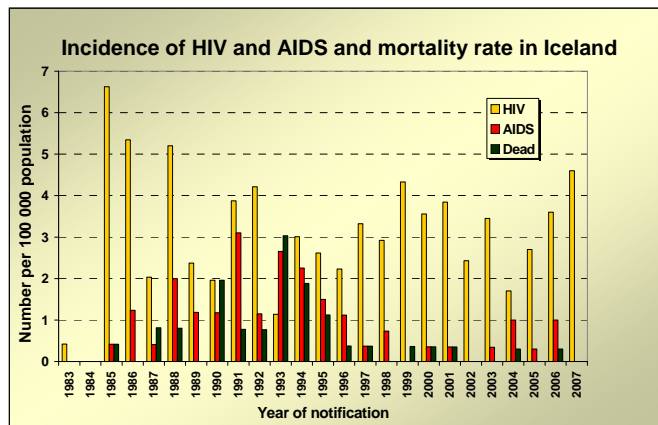


Fig. 1

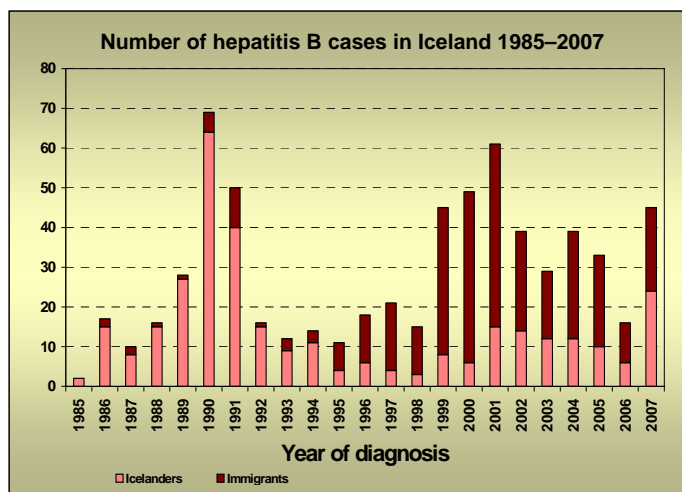


Fig. 2