

ANNUS MEDICUS

DIRECTORATE OF HEALTH



2006

ANNUS MEDICUS 2006

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EXTRACT FROM THE ANNUAL REPORT OF THE DIRECTORATE OF HEALTH 2006

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Editing and translation:

Jónína Margrét Guðnadóttir
jonina@landlaeknir.is



In 2006, a new Minister of Health and Social Security took office and announced an increased emphasis on issues related to the elderly on the one hand and on public health and prevention on the other hand.

Issues concerning the elderly

The Minister's new policy on the elderly was published in a pamphlet entitled *New Vision – New emphases*. The policy was received favourably by the elderly as it reflected their views and the recent debate on these issues. In particular, the stress on at-home care rather than more institutional care was seen as positive. As a matter of fact, the number of places in residential homes for the elderly and nursing homes is greater in Iceland than in most of our neighbouring countries.

The Directorate of Health conducted a survey in 2006 among elderly people waiting for admission to nursing homes in Reykjavik who had been assessed as severely in need for nursing home care. It revealed that the majority of these people believed they could live at home, provided the services they received remained unchanged. Nevertheless, close to 85% of those who replied to the survey had been defined as greatly in need of a nursing home place on the preadmission nursing home assessment waiting list.

The supervision of the preadmission nursing home assessment (PNHA) of the elderly was transferred from the Ministry of Health to the Directorate of

Health in 2006 and, at the same time, the service region of each PNHA group was extended in an effort to secure a more objective treatment.

A positive step taken in 2006 in services for the elderly was the introduction of care-at-home services for elderly patients being discharged from the Landspítali University Hospital (LUH). Without doubt, a service of this kind will save money as a result of earlier hospital discharge, reduced likelihood of readmission and the provision of regular medication. Furthermore, the primary care physicians have not always received sufficient information on the hospital stay of their patients upon their discharge, and it is hoped that the new service will provide a necessary link to the primary care service.

Another positive development in 2006 was the joint effort of the Directorate of Health and the Ministry of Health and Social Services to improve the access to data concerning the elderly and services for the elderly.

Shortage of health care workers

The shortage of health care workers in Iceland is an even larger problem than the lack of new facilities. In the view of the Directorate of Health this shortage is a cause for concern, especially as it is a growing problem that will affect the quality and safety of the country's health services.

The shortage of registered nurses and licensed practical nurses has the most serious consequences. To relieve the situation, the education authorities increased the number places for students of nursing at the University of Iceland and the University of Akureyri to a total of 153 in compliance with proposals from a working group appointed by the Directorate of Health. According to an assessment by the Icelandic Association of Registered Nurses, which conducted a survey of the supply of nurses in 2006 and estimated the need



for registered nurses until 2015, the shortage of nurses in Icelandic health care institutions in 2006 amounted to 582 nurses in 445 positions and would amount to 749 nurses in 543 positions by 2015. On the basis of these figures the Association estimated that the need for nurse graduates would be 190 graduates a year.

As regards licensed practical nurses their age distribution is a special cause for concern since a great number of them will retire before too long with no new recruits to replace them. According to a report on man-power needs in the near future, sponsored by the Ministry of Health in 2006, the estimated need for new practical nurses is around 120–140 a year while the annual number of new licences issued to practical nurses has been about 87 a year in recent years.

At the same time there is a shortage of other qualified health care workers. Among biomedical scientists, e.g., where the average age is already high, around 45 individuals have completed their degree in the last 5 years, out of whom only 25% have started working at the LUH. Furthermore, the need for untrained staff at health care institutions has in recent years been increasingly met by the employment of foreigners.

Primary care services

In 2006, the scope of practice of health care centres was expanded by making changes in the organisation of maternity care in the capital area. This means that all pregnant women in that area go to their health care centres for maternity care unless they have certain defined risk factors, in which case the maternity care takes place at the Landspítali University Hospital.

Private clinics

With improved technology more numerous and complicated operations are being performed outside hospitals than ever before. Indeed, the largest private clinics have come to resemble small hospitals as regards the number of physicians and other health care personnel working there as well as the facilities and technology employed.

Up until now the Directorate of Health has not been monitoring private clinics in a satisfactory manner. It is unacceptable that the Directorate should uphold less monitoring of private clinics than it does when it comes to primary health care and hospitals.

A new bill of law on the Directorate of Health actually provides for increased obligations on part of the Directorate in this area. To meet this obligation the position of a project manager to be in charge of this function was advertised towards the close of the year. The project manager will be in charge of organising data collection, as well as the processing and analysis of data on health care services provided by private clinics.

Patient safety

The Directorate of Health is very eager to improve patient safety and has introduced various measures specifically for this purpose. Among these are the appointment of an advisory board on patient safety in 2006, the preparation for a survey and analysis of the frequency of incidents and adverse events, preparations for a campaign on incident reporting and incident response, proposals regarding shortages in health care manpower, an investigation into the safety culture of health care institutions, a conference on patient safety, a campaign against infections originating in health care institutions and,



finally, an awareness campaign among the public to enhance personal health care safety.

The Directorate of Health has started preparations for an analysis of patient safety at three Icelandic hospitals and an investigation into the extent of adverse events. This work will be based on a methodology already tested in similar investigations in the USA, the UK, the Nordic countries and elsewhere. Such an extensive research is expected to take two years.

Towards the close of the year preparations were made for a visit to Iceland in early 2007 by Sir Liam Donaldson, the Chief Medical Officer for the UK, who is Chair of the World Alliance for Patient Safety.

Response plan for an influenza pandemic

In early 2006, the Government of Iceland decided to entrust to the National Commissioner of the Icelandic Police and the Chief Epidemiologist for Iceland the formation of a steering group concerning civil protection operations and communicable dis-

ease measures in case of an influenza pandemic. Working groups were established consisting of representatives from at least 30 institutions, organisations and associations, whose function it is to prepare a coordinated response plan for such a pandemic. The implementation of communicable disease measures has been in the hands of the Chief Epidemiologist while the supervision of health care is the responsibility of the Medical Director of Health

Collaboration between the University of Iceland and the Directorate of Health

In the autumn of 2006, the Directorate of Health and the University of Iceland signed a collaboration contract on teaching and research in the field of public health and other health sciences. The contract in question is an important milestone in the preparation of an interdisciplinary master's programme in public health sciences that will begin at the University in the autumn of 2007.

Matthías Halldórsson, MD, DSc
Medical Director of Health

I. THE DIRECTORATE OF HEALTH

In October 2006, the Medical Director of Health, Dr. Sigurdur Gudmundsson, took a one year's leave of absence in order to work as an adviser to the government of Malawi under the auspices of the Icelandic International Development Agency. During his leave, the Deputy Medical Director, Dr. Matthías Halldórsson, holds the position of Medical Director of Health.

In the beginning of 2006, a new organisation of the Directorate of Health was introduced (see chart below), replacing the organisation in force since the beginning of 2001. The Directorate of Health now operates in four professional divisions, Clinical Quality and Public Health, Communicable Disease Control, Health Statistics, and Finance, besides the Division for Administration. The Medical Director of Health, the Deputy Medical Director of Health plus the four division heads form the management of the institution.

In 2006, the Directorate of Health employed 35 people, 9 men and 26 women, in close to 25 full-time equivalent positions, in addition to several contractors.

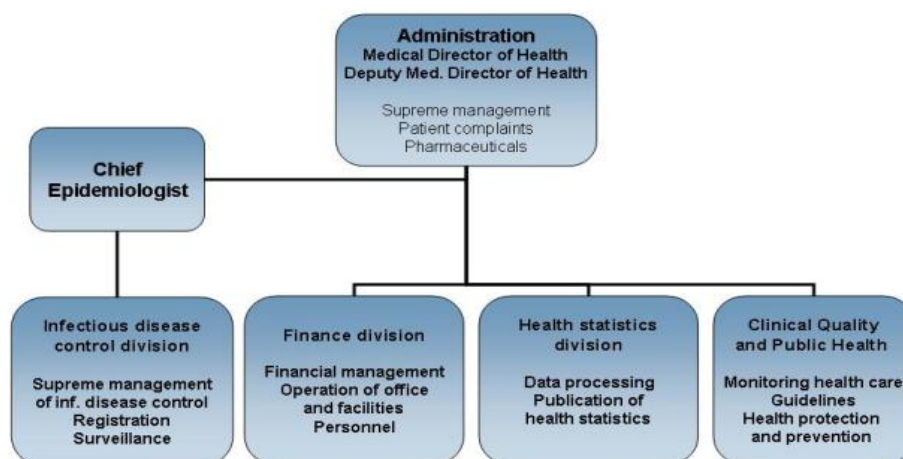
Activities in 2006

Revision of legislation and policy

Revision of legislation on the health care services in general continued from the previous year and as a result it was decided to enact a special law on the Directorate of Health. A bill to that effect was introduced in the Althingi in October but had not been adopted at the close of year. A bill proposing amendments to the Communicable Diseases Act was introduced at the same time.

In January the formation of a new policy for the institution for the following two years was completed. It included four major goals and an outline of the ways to reach those goals. Among the resolutions was a commitment to conduct regular employee attitude surveys. The first such survey was conducted in June and yielded a 93% response rate.

Directorate of Health – Organisational chart



Formal reports on bills and regulations

Part of the Directorate of Health's regular functions is to issue formal reports and statements on parliamentary bills and proposals for parliamentary resolutions concerning health service issues and other issues within its domain. The Directorate of Health also issues statements on relevant regulations.

Information

A sizable part of many employees' time is devoted to various forms of information activities, such as giving lectures and providing information to newspapers and interviews on radio or TV. Some employees are also involved in formal teaching of certain groups and health care workers.

The operation of the web site (<http://www.landlaeknir.is>) is also an important part of the Directorate of Health's information activities. There has been a steady increase in visits to the web site and in the years 2004–2006 the number of weekly users increased by nearly 35%. In the autumn of 2006, a radical revision of the web site's layout and contents began but was not completed at the close of the year.

Conferences

The Directorate of Health sponsored ten conferences in 2006, either in cooperation with other institutions and associations or independently. Among these was the Nordic Vaccine Meeting, held in Reykjavik on August 25th–26th. It was attended by close to 180 people from all the Nordic Countries.

Research projects

The Directorate of Health has taken part in an international research project on the work-related health and career of physicians and their working conditions in four university hospitals in Europe. The study began in 2004 and will be completed in 2007. The project is a part of the so-called "HOUPE Study" or "Health and Organisation among University Hospital Physicians in four European Countries: Sweden, Norway, Iceland and Italy" (see <http://www.houpe.no>).

The project manager for the Icelandic part of the research sponsored a seminar on the subject during the annual January Medical Conference at the University of Iceland. In March, the international group in charge of the project visited Iceland for a meeting.

A collaboration contract with the University of Iceland was signed in 2006 relating to the new department of public health sciences at the university. The function of the Directorate of Health will chiefly involve supplying the expertise of its staff for teaching at the new department and thus contributing to the enhancement of education among health care workers.

International cooperation

The Directorate of Health cooperates extensively with international organisations, both in the Nordic framework, in Europe and other parts of the world. The Directorate participates in the work of the World Health Organisation in addition to various international bodies. There is an established tradition for Nordic cooperation while cooperation with EU organisations is steadily increasing.

II. CLINICAL QUALITY AND PATIENT SAFETY

In 2006 a new position of a project manager for clinical quality and patient safety was established. The Directorate of Health is eager to strengthen these aspects of the health care services and has taken specific measures for that purpose as described below.

Patient safety

Advisory board on patient safety

An advisory board on patient safety was appointed in 2006, composed of representatives from the country's largest hospital, the Landspítali University Hospital (LUH), one country hospital, the primary health care service, a geriatric institution and the Directorate itself.



An investigation into the frequency of health service incidents or adverse events is being planned. This research will make use of the same methodology that has already been used in similar investigations in the USA, the UK, the Nordic countries and elsewhere. The investigations in these countries reveal that incidents or adverse events occur on average in 8.2% of hospital admissions and that almost 40% of these could have been prevented.

It is of great importance to obtain research data concerning the main causes and origin of adverse events in the Icelandic health service in order to be able to make improvements.

As a first step, the Directorate has participated in investigations into the safety culture of certain departments of the LUH, in cooperation with the hospital and the Faculty of Nursing at the University of Iceland. The Directorate also took part in a survey to examine medication incidents among nurses working in several departments of the LUH.

Another important safety measure is raising the awareness of the general public as to things that people can do to enhance their personal health care safety. The Directorate launched an effort to this effect in 2006 by placing an article in one of the most widely distributed newspapers in the country. It encouraged people to pay close attention to the health care they receive and the medication administered to them as well as giving detailed information about their health condition when visiting a physician.

Clinical quality

The use of health indicators to measure and monitor the quality of the health care services has been increasing in recent years. The Directorate of Health takes part in two working groups appointed by the Nordic Council of Ministers to address these issues as well as participating in OECD work in this field. In 2006, the first edition of health and quality indicators for Iceland was being prepared.

The Directorate of Health's geriatric nursing clinical quality advisory board was operated in 2006. It concentrated on preparing guidelines for nursing home care that will benefit managers of institutions for the elderly, the residents themselves and their families

Health care institutions

Clinical quality monitoring

According to law, the Directorate of Health is supposed to monitor the activities of health care institutions and the working conditions of health care workers. There are some 350 health care units operating in Iceland that fall under this monitoring system. The Directorate uses various methods to fulfil these provisions, based among other things on quality guidelines issued by the World Health Organisation (WHO).

Visits to health care institutions are a regular feature of the monitoring routine. In 2006, the Directorate's employees paid such visits to a number of institutions across the country and in the capital area, including nursing homes and primary health care centres. Two surveys were conducted on the conditions and views of elderly people waiting for admission to a nursing home or a residential facility.

Resident Assessment Instrument (RAI) in institutions for the elderly

A regulation issued by the Ministry of Health calls for the regular assessment of the accommodation and health of residents in facilities for the elderly. An international instrument for this assessment, called Resident Assessment Instrument (RAI) has been developed for this purpose. The Directorate of Health is in charge of implementing the RAI assessment in Iceland.

The instrument provides a standardised tool for assessing the physical and psychosocial needs and health of individuals living in nursing homes and residential homes or receiving short-term post-acute care in skilled nursing facilities. The tool makes it possible to extract quality indicators, RAPs (Resident Assessment Protocols) and RUGs (Resource Utilization Groups) for each facility, thus making it easier for the managers and the health authorities to compare results from different departments and institutions.

The RAI instrument is actually the central tool in a group of related instruments that can be used for assessing various types and degrees of care of the elderly. Some of these have already been adopted in some parts of Iceland, e.g. an instrument for assessing at-home care in the Reykjavik area.

A special project manager is responsible for training

health care staff in the registration of RAI data and providing special courses for nurses, nurse assistants and others involved in the implementation of RAI assessment. In 2006, five such courses were held in Reykjavik.

Preadmission Nursing-Home Assessment

The monitoring of preadmission nursing-home assessment (PNHA) of the elderly applying for nursing homes and the maintenance of its accompanying PNHA waiting list were transferred from the



Ministry of Health to the Directorate of Health in 2006 as mentioned earlier in this abstract. The PNHA waiting-list data make it possible for the Directorate to assess the health, functional needs and strengths of individuals on waiting lists before placement in nursing homes or short-term post-acute care.

Towards the end of the year it was decided to hire a project manager as of January 1st 2007 to be responsible for these functions.

Health care personnel

Applications for licences to practice

According to regulations, the Directorate of Health gives a formal opinion on applications from health care professionals for a licence to practice. In 2006, a total of 274 applications were handled, involving 22 professions, of which 100 were applications for physicians' licences.

As mentioned above there is a serious shortage of health care workers, in particular registered nurses and licensed practical nurses. To relieve the situation, the government announced in late 2006 that it would increase the number of places for students of nursing at the University of Iceland and the University of Akureyri.



Clinical guidelines

The Directorate of Health started the publication of clinical guidelines on the Directorate of Health web site in January 2000. Since then, guidelines on some 32 subjects have been published. Guidelines from two of the largest hospitals in the country are also accessible on the web site.

The clinical guidelines unit works in cooperation with other providers of clinical guidelines, both nationally and abroad, and with other institutions. Cooperating institutions in Iceland in 2006 were the LUH in Reykjavik and the FSA University Hospital - Regional Hospital in Akureyri, the Maternity Care Centre in Reykjavik and the Public Health Institute of Iceland. Foreign institutions are the Intercollegiate Guideline Network (SIGN) in Scotland, besides NICE in the UK, NZGG in New Zealand, NHMRC in Australia, and SBU in Sweden.

Other instructions and guidelines are also published by the Directorate of Health. Among those published in 2006 were revised instructions on the treatment of hypothermia, guidelines on the prevention of sudden infant death syndrome and recommendations regarding pregnancy screening.

Pharmaceuticals Data Bank and monitoring of prescriptions

The Directorate of Health began the operation of a Pharmaceuticals Data Bank (PDB) in 2005 for the purpose of monitoring prescriptions issued by physicians, as well as monitoring the development of the use of pharmaceuticals and addictive drugs. The PDB has proved useful in all these functions.

In addition, the data bank offers extensive opportunities for research. At the close of 2006, a project manager for the Pharmaceuticals Data Bank was hired to supervise and develop special projects and research based on data from the bank.

In December the Directorate started a project in collaboration with geriatricians on the use of pharmaceuticals by elderly people living at home. Another project was an investigation of the prescription profiles of primary care physicians at one health care centre near Reykjavik. The Directorate also sponsored an investigation of the consumption of Vioxx, a drug that had been taken off the market in 2004.

In 2006, reporting began on the consumption of antibiotics and antimicrobial resistance that made use of data from the PDB. The investigation revealed that the total consumption of antibiotics, measured in defined daily doses (DDDs), increased by 1.8% between the years 2005 and 2006. The percentage of antibiotics prescribed outside health care institutions was 78.6% as compared with ca. 90% in previous years.

Medical devices

According to a law enacted in 2001, the Directorate of Health is the competent authority in matters concerning medical devices, and in that capacity is responsible for the inspection and surveillance of medical devices in Iceland. In 2006, the Directorate received 600 notifications of defects of medical devices from competent authorities in other countries. The Directorate also received 103 notifications on devices and methods for biological sampling marketed in Europe. Other notifications on various aspects of medical devices totalled 539.

Medical treatment and health care services

Trauma treatment

The Directorate of Health continued in 2006 to work on the organisation of psychological support for trauma victims in cooperation with the Icelandic Red Cross, the Landspítali University Hospital, the Civil Protection Department of the National Commissioner of the Icelandic Police and the Bishop of Iceland.

Mental health care for children and adolescents

The effort to find new ways of improving mental health care for children and adolescents continued in 2006. The Minister of Health and Social Security requested advice in these matters from foreign specialists as well as the Directorate of Health. The specialists delivered a report which in effect reiterated earlier proposals to the Minister of Health by Icelandic specialists, calling for steps to ensure access to the service as well as continuity in the diagnosis, treatment and follow-up.

Health care in prisons

The Directorate of Health has a representative in a consultation group on prisoners' issues that was established in 2005. In order to prevent drug abuse in prisons, a list was drawn up in cooperation with prison physicians, containing medicines that should only be prescribed in prisons in an emergency.

Patient records of deceased people

In answer to requests by relatives to be given copies of the patient record of their deceased relatives, the Directorate of Health was in full agree-

ment with the Icelandic Data Protection Authority to the effect that Icelandic statutes did not permit handing such records over, neither as a whole nor in part.

According to this conclusion, a specific permission, issued by the individual, must be available before death if his/her patient record is to be handed over to anyone.

Drivers' and captains' licences for people suffering from epilepsy

The Directorate continued preparing guideline rules on the issuing of drivers' and captains' licences for people suffering from epilepsy, in cooperation with a group of specialists. The chief purpose of the rules will be to enhance the safety of road and marine traffic.

Civil Protection

According to law, the Medical Director of Health, who is a member of the Civil Protection Council, is responsible for those aspects of civil protection that have to do with health care institutions and the medical treatment and nursing of sick and injured people. The most important task in 2006 was making a response plan to prepare for an influenza pandemic.

In addition, several exercises were held to practise response to major air and marine accidents and natural catastrophes, the most extensive of them a large-scale European marine accident exercise (NORDRED), held in May.

III. COMMUNICABLE DISEASE CONTROL

Legislation

In the autumn of 2006, the Minister of Health and Social Security presented a bill proposing amendments to the Communicable Diseases Act that had been in force since the beginning of 1998. The bill was not passed until 2007. The main purpose of the amendments was to adjust Icelandic statutes with the provisions of the new International Health Regulations, which were to become legally binding on June 15th 2007. According to the new provisions, the Communicable Diseases Act will apply not only to infectious diseases but also to public health threats resulting from toxic and radioactive materials. Furthermore, certain changes in the administration of communicable disease control were deemed necessary.

Response and preparedness plans for an influenza pandemic

In 2006, a big effort went into the formation of response and preparedness plans for an influenza pandemic. In the early months of 2006, the National Commissioner of the Icelandic Police and the Chief Epidemiologist for Iceland were commissioned by the Government to form a steering group to work on a response plan for a pandemic influenza and define the assignments and functions of the cooperating parties. As many as 26 working groups were established with representatives from at least 30 institutions, organisations and associations.

In several areas important milestones were reached. In addition to 89,000 doses of influenza drugs, contracts were signed on an additional 20,000 doses to be delivered in 2006 and 2007. A contract was also signed on the delivery of emer-

gency stockpiles of intravenous (IV) solutions, estimated to last for three months and contracts were signed on the purchase of personal protective equipment, including 630,000 isolation gowns, particulate respirators, safety goggles and protective aprons.

Communicable diseases

Reportable diseases

Primary health care centres and independent general practitioners are under obligation to report to the Chief Epidemiologist aggregated data on the number of certain communicable diseases, without personal identification, and to report on contact tracing. The return of these reports, however, is very poor and figures on these diseases are therefore unreliable.

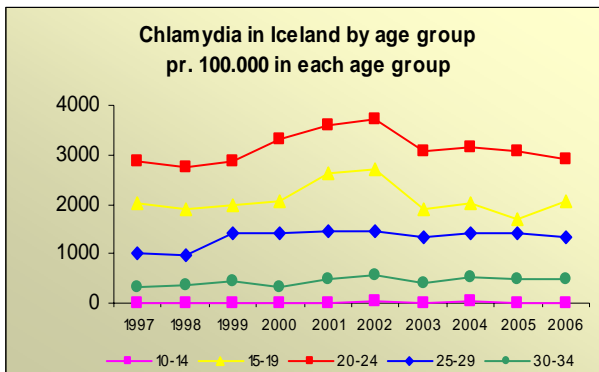
Influenza

The annual influenza outbreak of 2006 started in January and reached a peak in March. The influenza virus B was most prevalent in the initial stage of the outbreak while influenza A started later. The influenza A belonged mainly to the strain H3N2 (86%) but the strain H1N1 was also identified (14%). The 2006 influenza outbreak did not cause as severe an illness among the population as the outbreak of the year before.

Notifiable diseases

The obligation to notify certain diseases involves submitting data to the Chief Epidemiologist, including the name or other personal identification of the

infected person. Based on data from both physicians and laboratories, this information is very reliable.



Chlamydia trachomatis

In 2006, a total of 1729 cases of chlamydia were diagnosed in Iceland, a slight increase compared with the previous year. The infection was diagnosed more often among women than men and the sex ratio has remained more or less constant between years. Chlamydia was most prevalent in the age group 20–24 years, followed by those aged 15–19 years (see fig.). The highest incidence of chlamydial infection occurred among people aged 18–19 years. From the age of 25 years, however, the incidence decreased again and became rarer with higher age.

In the latter part of 2006, Sweden reported a new strain of the chlamydia bacterium which had been spreading in Sweden without being detected by existing means of investigation. The Landspítali University Hospital (LUH) initiated an investigation to examine whether this strain had spread to Iceland and a search was conducted in over 1000 samples. About 10% of the samples were diagnosed with chlamydia, and less than 2% of the positive samples appeared to belong to the new strain. The initial conclusions, therefore, indicated that the strain had not gained foothold in Iceland.

Gonorrhoea

In 2006, a total of 31 cases of gonorrhoea were diagnosed at the Department of Clinical Microbiology of the LUH, which was a large increase compared with the previous year. The infection is most often diagnosed in people aged 20–24 years, the majority of

whom are men. It appears that the majority of infections were of domestic origin, which is different from previous years, when practically every gonorrhoea case originated abroad.

Meningococcal infection

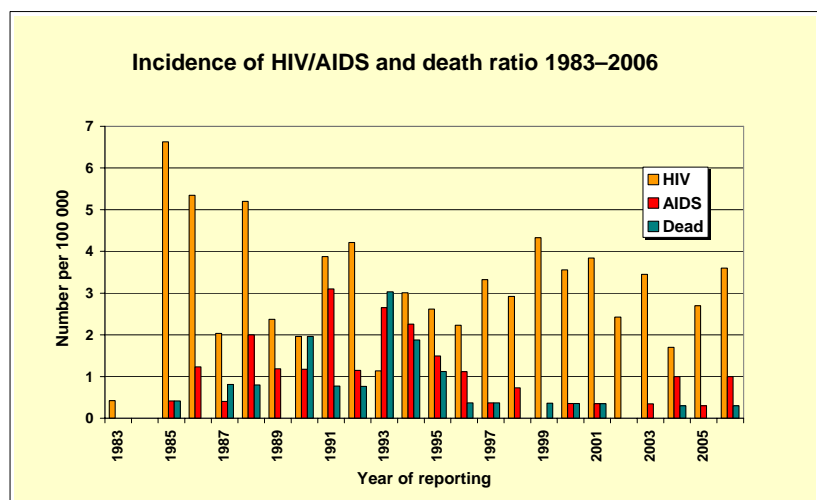
In 2006, four individuals were diagnosed with serious meningococcal infection, all of them with group B infection. All of those infected were under 20 years of age and survived the infection. Only one individual was diagnosed in 2005 with group C meningococcal infection and none in 2006. It can therefore be concluded that the vaccination campaign in Iceland against group C meningococcal infections, which started in 2002, has proved a great success.

Mumps

An outbreak of mumps began in Iceland in May 2005 and lasted until May 2006. The total number of serologically confirmed cases of mumps was 113, most of them among individuals aged 20–24 years who had probably not been vaccinated. A vaccination campaign was initiated in December 2005 when all individuals born in the years 1981 through 1985 were invited to have an MMR vaccination free of charge. About 50% of this group had the vaccination and the outbreak subsequently subsided.

HIV and AIDS

In 2006, eleven patients were diagnosed as HIV positive, eight men and three women. Two men and one woman were diagnosed with AIDS that

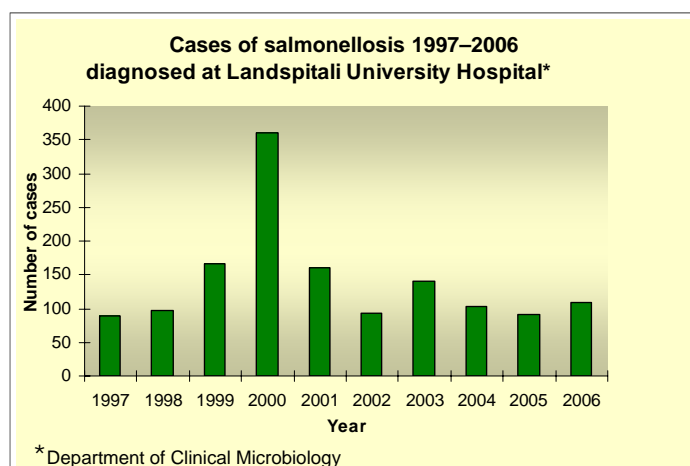


year and one male died from the disease. These figures indicate that HIV/AIDS has become an endemic although rare disease in Iceland. A look at the groups engaging in risk behaviour reveals that the proportion of heterosexuals getting infected is increasing year by year.

Hepatitis

Only two cases of hepatitis A were diagnosed in Iceland in 2006, which makes it a very rare disease in the country. The few who get infected are mainly tourists who have travelled to countries where the disease is endemic. Hepatitis B, also a rare infection but transmitted through blood, was diagnosed in 2006 in only 16 cases, mainly among applicants for residence permits coming from parts of the world where the disease is endemic.

Hepatitis C is by far the most common form of hepatitis in Iceland, transmitted through infected blood, mostly among drug addicts using intravenous needles. In 2006, 56 cases were diagnosed with the disease, as compared with 44 the year before.



Salmonellosis

In 2006, 108 cases of salmonellosis were diagnosed at the Department of Clinical Microbiology at the LUH, a similar number as in recent years. No outbreaks of the infection were detected during the year.

Vaccinations

In June 2006, a tender for vaccines used in the National Childhood Vaccination Programme was issued in Iceland in preparation for a new arrangement of the immunisation programme that was to enter into force on January 1st 2007. The arrangement had remained largely unchanged since the beginning of year 2000.

The planned new arrangement of the immunisation programme is as follows:

- Infanrix Polio Hib replaces Pentavac.
- Boostrix replaces diTekiBooster
- A pertussis booster vaccination will be introduced at 14 years of age.

For more on these changes see *EPI-ICE*, Vol. 2. 2006: 5 and 10.

Pre-emption of influenza vaccines in case of a pandemic

In 2006, there was great emphasis on the formation of response plans for an influenza pandemic. This meant, among other things, securing influenza vaccines for Iceland if or when an influenza pandemic would break out. Iceland took part in a tender by the Danish health authorities in 2006 to secure the pre-emption for Iceland of 150.000 doses of influenza vaccines. Iceland was expected to sign its part of the contract in early 2007.

The Nordic Countries have discussed the possibility of starting a common factory for the production of influenza vaccines in order to secure sufficient amounts of vaccines for their people in case of a pandemic. This issue had not been settled at the close of 2006.

Centralised Vaccination Registry

Following a successful pilot project on the electronic transfer of vaccination data that was completed in 2005 plans were made for the establishment of a centralised vaccination data base that would contain data on all vaccinations performed in Iceland. In cooperation with the Ministry of Health and Social Affairs negotiations on the project began in 2006, thus opening the possibility of monitoring the childhood vaccination coverage in the country and providing health care workers with access to information on individual vaccination profiles.

Communicable disease measures by the authorities

Monitoring applicants for work or residence permits

In 2005, the Chief Epidemiologist published procedures on the web site of the Directorate of Health concerning the medical examination of foreign employees in Iceland. According to these, the applicants for temporary work or residence permits were allowed to bring health certificates from their home country, provided they met the Chief Epidemiologist's conditions. In 2006, the Chief Epidemiologist received and examined 609 such certificates as compared with 1751 in 2005.

Antimicrobial resistance and antibiotics use

In 2004, an amendment was made to the Communicable Disease Control Act, requiring the Chief Epidemiologist to put increased emphasis on measures to counteract the development of antibiotics immunity and to enter data on the consumption of antibiotics into a special data bank. According to the

new provisions, the required data were to be extracted from the Pharmaceuticals Data Bank operated by the Directorate of Health. The processing of these data began in 2006, cf. above (p. 12).

Information on HIV and other sexually transmitted diseases

The aim of the information is to reduce the incidence of sexually transmitted diseases by enhancing people's knowledge of routes of transmission and promote safer sexual practices. The main emphasis in this work is placed on reaching groups at risk as well as young people.

EPI-ICE

A newsletter from the Chief Epidemiologist, entitled EPI-ICE in English (*Farsóttafréttir* in Icelandic), is published on the Directorate of Health web site every month, and released simultaneously in Icelandic and English. The year 2006 was the second year of its publication (see: www.landlaeknir.is/EPI-ICE).

IV. HEALTH STATISTICS

One of the Directorate of Health's major functions is to collect data and compile statistics on health and the health services, something which is essential for management, monitoring, policy making and planning within the health care sector.

Nomesco publication *Health Statistics in the Nordic Countries* (<http://www.nom-nos.dk/nomesco.htm>)

In 2005, the total number of primary care contacts in Iceland was close to 1.800.000. Contacts with primary care physicians, apart from telephone calls, (i.e. appointments, house calls etc.) were 840.000, or ca. 2.8 per inhabitant. The corresponding figure for contacts with registered nurses in 2005 was 230.000, or 0.8 per inhabitant.

Health services data

Hospital discharges

The collection and processing of hospital discharge data is based on a minimum data set issued by the Directorate of Health. In 2006 the processing of data for 2004 was completed and tables were published with hospital statistics for the periods 1999–2004. Data for 2005 were collected and their publication planned in 2007.

Non-hospital contacts

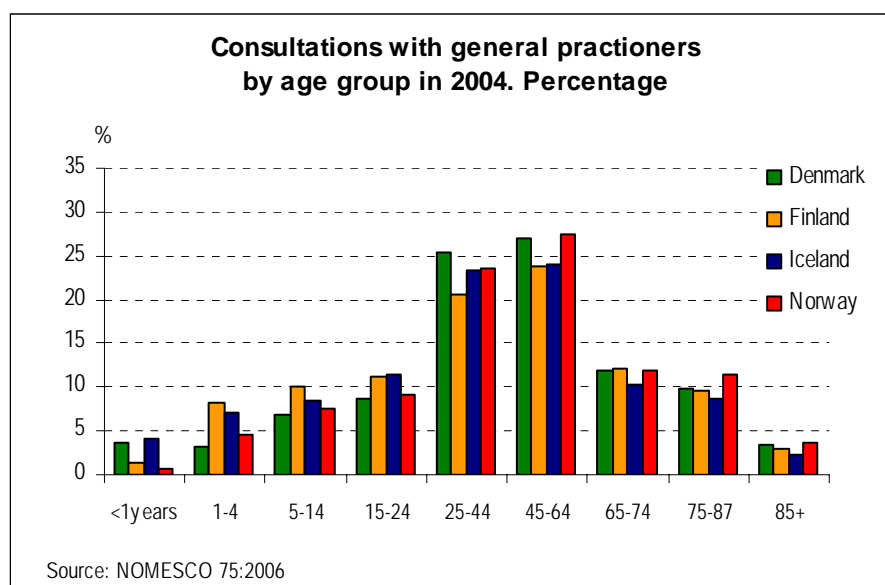
Primary health care

The Directorate of Health published a minimum data set for primary health care centres and specialist clinics in 2002. Electronic data collection from primary health care centres began in 2005 for data covering the year 2004 and continued for the second year in 2006 covering data for 2005. The data were compiled in a data bank at the Directorate of Health and the first statistics generated from these were published in 2006, among them statistics on the number of primary care contacts with physicians and registered nurses in 2004. The data were also used to supply statistics on non-hospital care for the 2006

The Icelandic Accident Registry

The Icelandic Accident Registry is a centralised data bank on accidents operated by the Directorate of Health. The objective of the registry is to gather information on accidents in Iceland and to ensure their uniform registration. Statistics from the Icelandic Accident Registry are published once a week on the Directorate of Health web site.

Consultations with general practitioners by age group in 2004. Percentage



In the beginning of 2006, eight institutions were entering data into the Icelandic Accident Registry. These were the emergency unit of Landspítali University Hospital, an insurance company, the Institution of Occupational Safety and Health, and the National Commissioner of the Icelandic Police, besides a few smaller health care institutions in various parts of the country. During 2006 several more primary health care centres joined the Registry. The total number of accidents registered in 2006 was 32.518, a slight increase over the previous year.

Number of accidents by type, 2006

Type of accident		%
Traffic accidents*	7.329	22,5%
Occupational accidents	6.648	20,4%
Domestic and leisure accidents	12.308	37,8%
Aircraft accidents	0	0,0%
Marine accidents	134	0,4%
Sports accidents	2.886	8,9%
School accidents	1.986	6,1%
Other accidents	1.227	3,8%
Total	32.518	100%

*This also includes accidents where no one was injured.

Classification systems

The Directorate of Health is responsible for maintaining classification systems used within the health care sector, according to a decision by the Minister of Health and Social Security. This involves decision-making regarding the adoption of classification systems, their translation, publication, distribution in electronic format, and updating. In 2006, a project manager in a 50% position was engaged to be responsible for the management of classification systems.

An extension of a licence for the Directorate of Health to have the *International Classification of Diseases, ICD-10*, translated from English to Icelandic was granted in 2006 through a contract with the World Health Organization, WHO. The Directorate also has a licence from WHO to translate the

International Classification of Functioning, Disability and Health, ICF and has outsourced the task to the Health Science Faculty of the University of Akureyri.

Registries of health care professions

The Directorate of Health keeps a registry of physicians with information on all physicians with a licence to practice in Iceland. A new and revised registry was adopted in 2006. By the end of the year, there were 1846 licensed physicians in the country, 1100 of whom were practicing physicians.

A registry of dentists has also been accessible on the Directorate of Health web site since 2001. At the close of 2006, 350 dentists had received a licence to practice, 290 of whom were active in their profession.

In 2004, the Directorate of Health compiled a registry of nurses containing specific information on all registered nurses with a licence to practice in Iceland. At the close of 2006, around 3750 nurses were licensed, of whom about 2550 were actively employed.

In 2006 the Directorate started keeping the fourth professional registry, a registry of midwives. At the close of the year licensed midwives in Iceland were close to 400, about half of whom were practicing their profession.

Certain data from these registries are accessible on the web site, where they are regularly updated. In addition, the registries are distributed to health care institutions and pharmacies, besides being used for statistical analysis.

Data banks

Pharmaceuticals data bank (see above, p. 12.)

Registers of opt-outs

The Directorate of Health has been in charge of a register of opt-outs from a centralised data bank since the year 2000. By the close of 2006 the data bank contained around 20.500 entries and just over 40 individuals had recalled their opt-out.

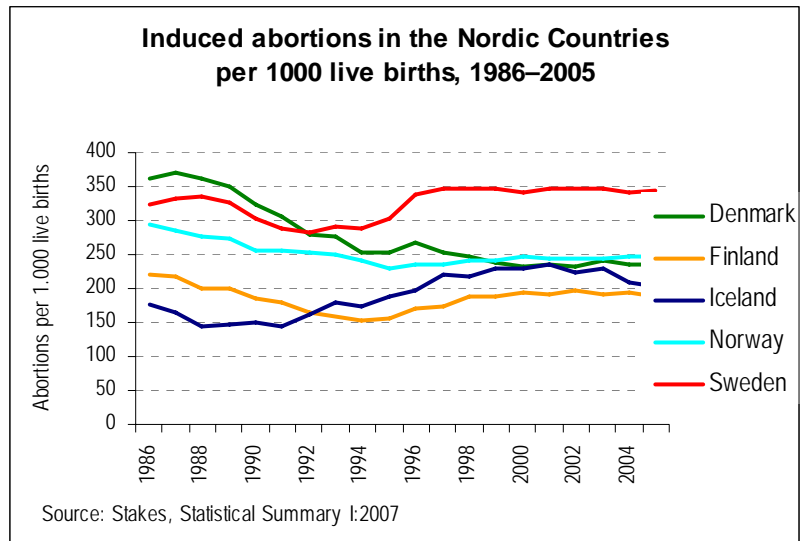
The Directorate is also responsible for receiving and registering opt-outs from bio banks. By the end of 2006, 212 such cancellations had been received.

Induced abortions and sterilisations

Statistics on induced abortions and sterilisations are based on registered data from special forms that are submitted to the Directorate of Health following an operation. These data are entered into a data bank that is maintained solely for the purpose of generating statistics, without any identifiable personal information.

In 2005, the number of induced abortions performed in Iceland was 867. Sterilisations were performed on 559 individuals, 285 men and 274 women.

The rate of induced abortions in Iceland was 11,7 per 1000 women in the year 2005, which was the second lowest rate in the Nordic Countries. A comparison of the rate of induced abortions in these countries per 1000 live births reveals, on the other hand, that the difference between the countries has been decreasing in recent years, except for Sweden (cf. figure.).



preparing the first stage in the establishment of a health care data warehouse, which involved collecting data on the elderly and the health services available for the elderly. The first edition of the data warehouse was expected to be ready in the spring of 2007 and will be accessible on-line.

Health care data warehouse

In order to improve access to necessary health care data a plan has been devised to collect into one data base all available data on the health of the Icelandic people and on the Icelandic health care services. Such a data base will be a step towards the creation of a centralised health monitoring system.

In 2006, the Directorate of Health and the Ministry of Health and Social Security worked together at

Surveys for the monitoring of health care

At the request of the Ministry of Health and Social Security the Directorate of Health carried out two surveys in 2006 among elderly people waiting for admission to nursing homes, for the purpose of evaluating the conditions and attitudes of elderly people in these circumstances, on the one hand in Reykjavík and on the other in the neighbouring town Hafnarfjörður.

The surveys yielded many interesting findings, e.g. the fact that 40% of those who replied said that they had less need for long-term care at that point in time than they had at the time they applied for admission to a nursing home.

V. COMPLAINTS IN 2006

There are various possibilities for those who wish to lodge a complaint because of malpractice or improper medical treatment or to seek their rights by some other means. Some of these are provided for in the Health Services Act of 1990 and the Patients' Rights Act of 1997. The following is a summary of where to submit a complaint:

- directly to the physician treating the patient,
- to the head physician in question,
- to the management or manager of the institution concerned,
- to the Committee for Solving Health Care Service Disputes,
- to the Medical Director of Health,
- to patient insurance,
- to the courts.

A complaint is registered as such if it leads to an examination by the Directorate of Health. The number of complaints in 2006 was 271, compared with 290 in 2005 and 244 in 2004. These ranged from complaints of minor communication problems to cases involving serious medical errors (cf. Table 1).

Before the end of March 2007, solutions had been reached in 242 cases, 79 of which had been partly or fully substantiated but 29 cases from the year 2006 had not been completed.

Reminder	67
Reproof	11
Legal reprimand	1
Suspension of licence	0
No action taken	155
Other	8
Not completed, March 2007	29
Total	271

Action taken by the Directorate of Health is shown in Table 2. The most serious action is the suspension by the Minister of Health of a licence to practice. This, however, did not happen in any of the complaint cases in 2006. In 155 cases there was no cause for action.

Wrong treatment	37
Unsatisfactory/Insufficient treatment	66
Access to health care	24
Patient journal	19
Communication difficulties betw. health care worker and patient	16
Alcohol or drug abuse by health care worker	4
Medical certificates	18
Unsatisfactory follow-up	11
Wrong diagnosis	4
Breach of confidentiality	9
Incomplete information	4
Communication difficulties between health care workers	1
Disability assessment	4
Unclear reasons	2
Unsubstantiated complaints	3
Health care worker goes beyond his/her scope of practice	4
Alternative medicine	4
Other reasons	41
Total	271

VI. PUBLIC HEALTH AND PRIMARY CARE

The Directorate of Health is responsible for policy making and advice to the health authorities as regards public health, primary health care and prevention, in cooperation with health care professionals and the universities in Iceland. The Directorate also cooperates with the Public Health Institute of Iceland in matters concerning first-stage prevention and health promotion.

Primary health care

In the field of primary health care in 2006 the Directorate published instructions on measures to prevent sudden infant death syndrome and published guidelines on foetal screening in the first trimester of pregnancy, involving an integrated probability assessment based on the age of the pregnant woman, an ultrasound examination of the foetus and blood tests, combined with increased information to expecting parents on the implications involved.

Prevention and public health

As usual the Directorate of Health was involved in several collaboration projects concerning prevention and public health.

1. Two pamphlets with **sex education** for teenagers and parents were published in cooperation with the Public Health Institute and private specialists, the first entitled *Sexual health and the teenager* and the other *Communication between parents and children regarding sex education*.
2. For several years the Directorate has taken part in an ongoing prevention project on **drug**

addiction education to protect children and young people from the dangers of alcohol and drug abuse. It is difficult to evaluate the extent to which such work is productive. Nonetheless, there are pleasant signs that the use of drugs and alcohol by adolescents has been somewhat reduced in the past few years.

3. An awareness campaign to warn youngsters and their parents of the **dangers of using tanning beds** has been kept up for a few years, particularly aimed at children aged 13–14 years, just before they have their confirmation.
4. **Anti-tobacco** measures involved participation in a conference on indirect smoking and smoke free work places as well as taking part in activities in connection with the World No Tobacco Day on May 31st.
5. A conference on new **treatment strategies for the mentally ill** was held to celebrate the World Mental Health Day on October 10th.
6. Measures against **obesity among children and adolescents**. A workshop was held on the various treatment strategies that have been tried in Iceland and other countries.

Suicide prevention

The Icelandic Alliance against Depression is a programme devoted to suicide prevention and follow-up treatment for those who have attempted suicide and the relatives of suicide victims. The programme was started in 2002 and has been developed in close cooperation with the psychiatric units of Icelandic hospitals, the primary health care, the social services, the police, as well as schools and the Church.

Educating professionals is a vital part of the programme and various types of courses are provided

for that purpose. As many as 15 basic courses were held in 2006 for primary care physicians and nurses as well as various other professionals. A special type of a one day course, called "Train the trainers", was introduced in 2005 and continued in 2006. This involves training professionals in a particular region of the country to become the educators in their area for other professionals and the general public.



A third type of a course, a 6–8-week introductory course on cognitive behavioural therapy for depression, has been developed in cooperation with the psychiatric unit of the Landspítali University Hospital. Initially intended for primary care physicians only, the scope of the course has been extended to include other professions as well. Three courses of this kind were held in 2006.

The project also sponsored several two-day courses for relatives of depressive patients as well as a number of shorter courses for various groups of professionals.

Raising the awareness of the general public on mental disorders, depression, suicide and suicide attempts has remained a major task. To this end numerous articles have been published in magazines and newspapers and representatives for the programme have appeared on radio and TV. Furthermore, the web site of the Directorate of Health devotes numerous pages to information on the programme, intended for both professionals and the public (www.thunglyndi.landlaeknir.is).

International cooperation

The structure and ideology of the Icelandic programme originates in Germany and it has been a member of an umbrella organisation called the European Alliance Against Depression, EAAD, from the outset. The alliance received a grant from the European Union, which was divided among the member countries in 2004 and 2005, and in 2006 the grant was renewed for an additional two years.

In 2006, the Icelandic programme took part in a Nordic collaboration project, based on the so-called Beardslee model, which is aimed at giving more support to parents suffering from mental disorders and depression and to their children.

In its almost five years of operation, the *Icelandic Alliance against Depression* has been extremely well received in Iceland, among professionals and the public, the authorities and managers of companies. The programme has opened the eyes of many people to the importance of preventive measures in this field and to the fact that a great deal still remains to be done.

Healthy advice

The Directorate of Health has sponsored an awareness and information campaign in the mass media since early 2002, for the purpose of calling attention to various health issues and health promotion and pointing out what people can do on their own to improve their health and wellbeing.

Since the autumn of 2004 the Directorate of Health and the Public Health Institute of Iceland have cooperated in this effort and alternately supplied short articles on health that appear every week in one of the major daily newspapers in Iceland.

VII. PUBLICATION

In 2006, the Directorate of Health published several reports and pamphlets besides clinical guidelines, circulars and classifications and continued publishing a monthly newsletter from the Chief Epidemiologist. The bulk of these publications are web publications although some are also published in print.

Reports and other publications in 2006

1. *Summary of the Pandemic Influenza Preparedness Plan of the Health Services*. Two web publications, one in Icelandic and the other an English translation.
 2. *The Annual Report of the Directorate of Health 2005*.
 3. *Annus Medicus 2005*. Extract from the Annual Report of the Directorate of Health 2005. Published in English for the first time.
 4. *Survey of the circumstances and attitudes of the elderly on a waiting list in Reykjavik for admission to nursing homes, at the close of September 2006*.
 5. *Health service monitoring by the Directorate of Health*.
 6. *Working procedures for paramedics*.
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Pamphlets

1. *Sexual health and the teenager*.
 2. *Communication between parents and children regarding sex education*.
 3. *Organ Donor*. (2nd edition). A revised edition of a pamphlet that first appeared in 1995 and was reprinted in 2001 and 2003.
 4. *Hypothermia*. Guidelines on first-aid treatment.
 5. *Good Medical Practice*. A pamphlet containing guidelines on the obligations and responsibilities of physicians that appeared initially on the web site in 2005. Republished in print in 2006 in 1100 copies, it was posted to all practicing physicians in Iceland in September.
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Newsletter

The second volume of the Chief Epidemiologist's newsletter, *Farsóttufréttir*, was published in 2006. It is a monthly web publication, also published in English under the title *EPI-ICE* (see <http://www.landlaeknir.is/EPI-ICE>).