



The seasonal influenza during the winter 2017–2018

The influenza epidemic during the winter 2017–2018 had significantly subsided by the end of March. In the last weeks of 2017 and the first weeks of 2018, the epidemic was dominated by influenza A (H3N2) virus. After that, the epidemic was dominated by influenza B virus of the Yamagata strain. At its peak, the epidemic activity in the society was close to being intense.

The distribution of the influenza virus strains in samples sent to the Department of Virology at the Landspítali University Hospital (LUH) are shown in Fig. 1.

In Fig. 2 the number of people diagnosed with influenza-like illness (ILI) reflects the effect of the epidemic in the society. The number of people admitted to the LUH followed the same pattern and was significantly reduced by week 13.

Concerns were raised regarding the efficacy of the vaccine used against the seasonal epidemic 2017–2018 because it did not contain an antigen against influenza B Yamagata. However, the results of a recent study (*Euro-surveillance* - Volume 23, Issue 9, 01 March 2018) have revealed a significant efficacy of the vaccine against influenza B Yamagata, which presumably can be explained by an antigenic cross protection in the vaccine.

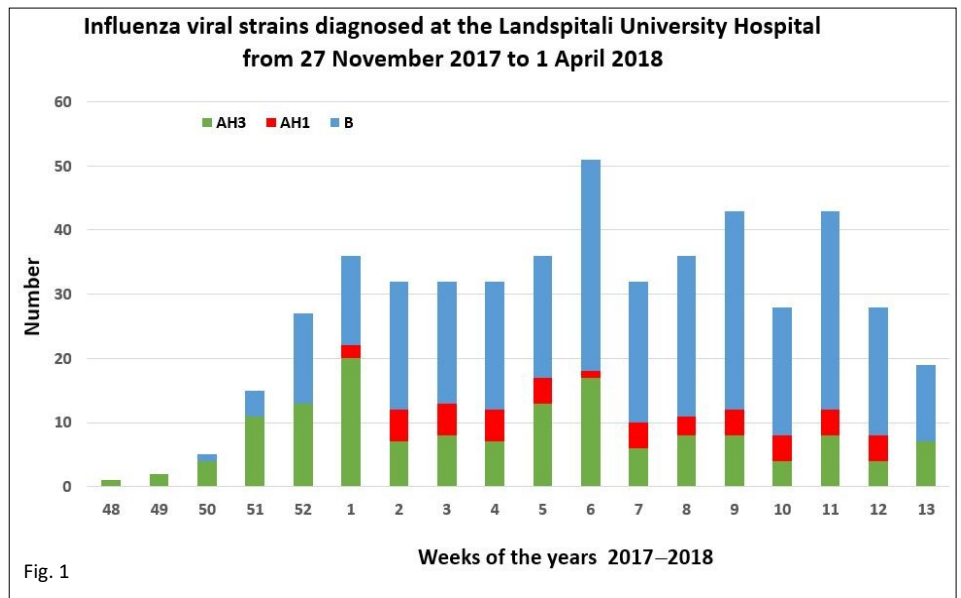


Fig. 1

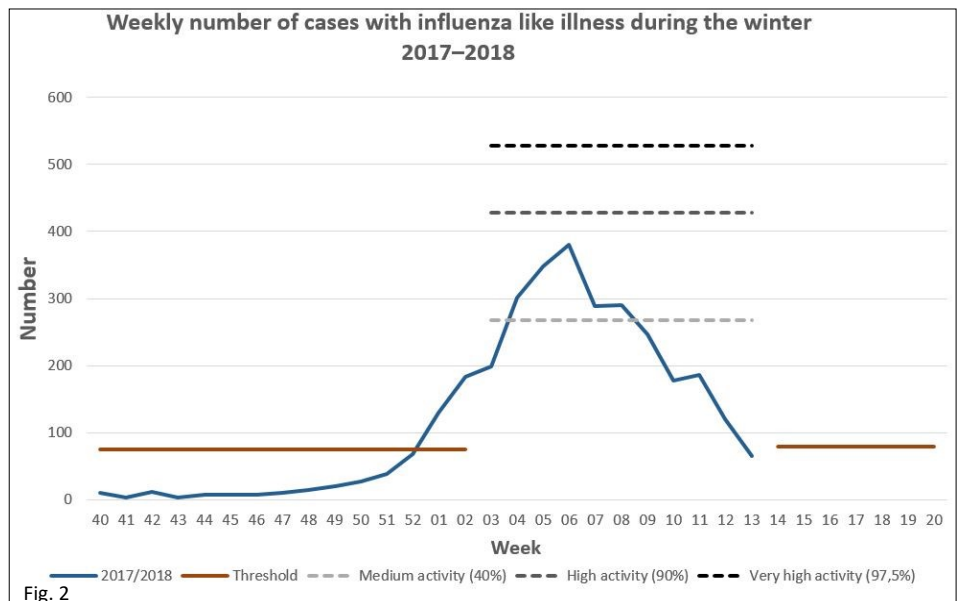


Fig. 2

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New Year's Eve 2017–2018

Air quality

At the beginning of the year 2018, heavy air pollution was caused by fireworks on New Year's Eve in the capital area, as revealed in measurements made at seven locations in the area. The highest short-term particulate matter measured was $4.500 \mu\text{g}/\text{m}^3$ (10 minutes value) at a measuring station in the town of Kópavogur. The pollution has never been measured as high in the capital area since the beginning of measurements. It should be noted that the health protection limit for particulate matter (PM_{10}) is $50 \mu\text{g}/\text{m}^3$ per day according to Regulation no. 920/2016. Also, SO_2 concentrations were higher than in recent years although they did not exceed health protection limits. Samples were taken for the analysis of heavy metals, but the results of the measurements are pending.

Sales of fireworks have increased significantly in recent years. In 1995, 150 tons were sold, while sales peaked in 2007 when over 1,000 tons of

fireworks were sold. Before last New Year's Eve sales reached over 600 tons. In this connection, it is also in order to raise the question whether climate change could be causing a higher risk of pollution accumulation. For the last 30 years, there have been only three instances of wind speed under 2 m/s on New Year's Eve, all of them after 2009. The Chief Epidemiologist investigated the health impact of humans caused by the air pollution at the beginning of the year 2018. It was found that ten individuals with respiratory symptoms caused by the pollution were identified at the LUH emergency department and about ten people with respiratory symptoms were also identified by the primary healthcare centres in the capital area. All these individuals were adults and most of them had underlying lung diseases. No deaths were attributed to the pollution. Health problems related to the



pollution were not diagnosed in any other healthcare regions in the country.

The Ministerial Collaborative Committee on Health Threats convened. The Committee consists, in addition to the Chief Epidemiologist, of representatives from the Environment Agency, the Food and Veterinary Authority and the Radiation Protection Agency. At its meeting on 11 January 2018, the Committee urged the government to make every effort to restrict the use of fireworks in Iceland, especially on New Year's Eve.

Contamination of drinking water in Reykjavík

On 9 January 2018, a heavy rainstorm hit Reykjavik with resulting snowmelt and flash floods. Water samples were taken the same day according to a response plan for such conditions. E. coli bacteria were detected in three wells that were sealed without delay. No deviations were found in the city's water distribution system on 9 and 10 January. In the following days the heavy rain continued and samples were taken daily. Soil bacteria were detected



in some of the samples above the threshold limit values. For this reason, it was temporarily recommended that people boil their water before consumption in neighborhoods where water pollution could be expected. No disease was observed related to this contamination which was caused by unusual circumstances. Deviations of this kind are rare in Reykjavík where the quality of water is generally very high.

Sexually transmitted diseases

The number of cases of sexually transmitted diseases (STDs) and HIV infections during the first three months of 2018 is particularly pro-

nounced regarding gonorrhoea. Of the 39 people diagnosed with gonorrhoea in the first quarter of this year, 35 were men (90%). Of the seven people

diagnosed with HIV infection during this period, five are foreigners. The two Icelanders identified are drug addicts.

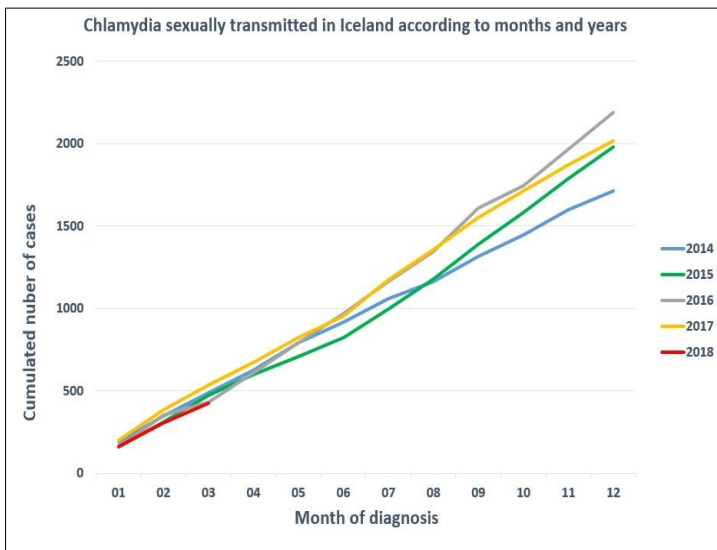


Fig. 3

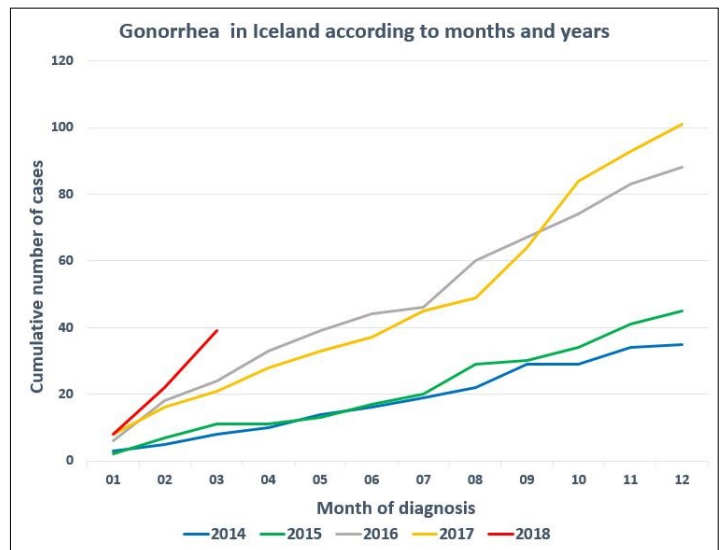


Fig. 4

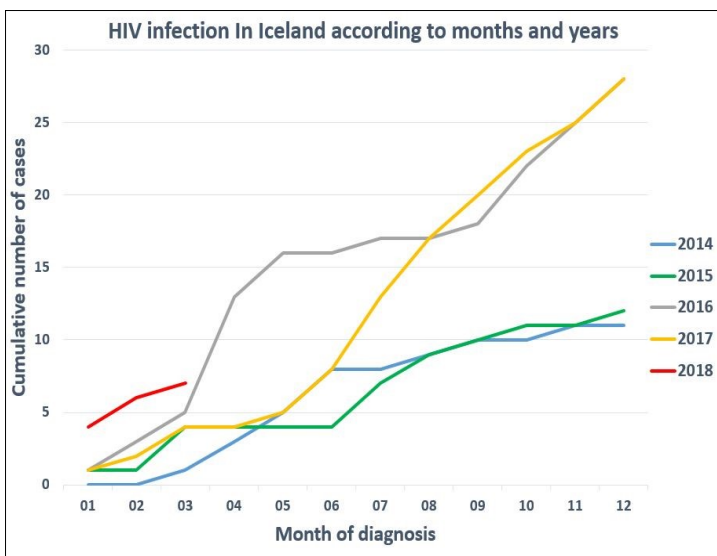


Fig. 5

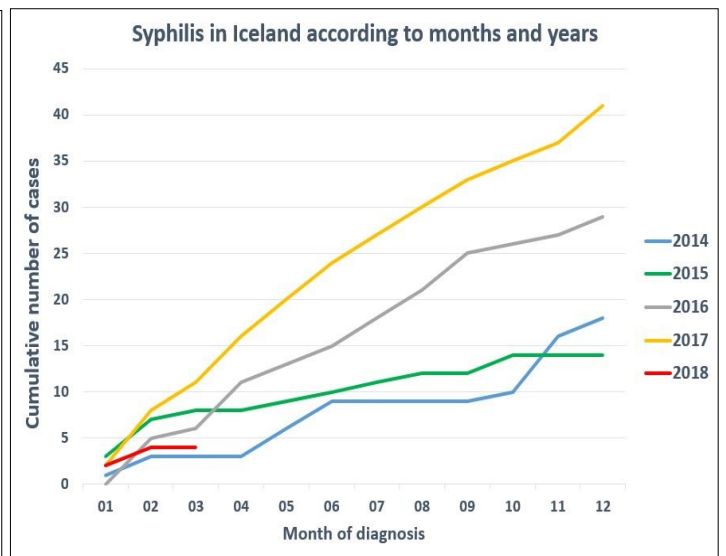


Fig. 6

The response of health authorities to increased spread of STDs

Last year, the Minister of Health appointed a working group in order to contain the spread of sexually transmitted diseases and HIV/AIDS in this country. The working group submitted proposals to the Minister at the beginning of 2018.

The first proposal suggested that the health authorities define a public policy and set a specified goal for an annual reduction in the number of those diagnosed with STDs. It was suggested that this reduction should be at least 10% per annum. Other recommendations relate to the collection and communication of information on the epidemiology of STDs, to the coordination of procedures regarding their diagnoses and treatment as well as access to analytical tests and their use, and to the

screening and diagnoses of STDs. In addition, it was suggested that a needle exchange programme should be established for intravenous drug abusers, that distribution of condoms should be free of charge to certain groups, that education on STDs in primary and secondary schools should be strengthened, and suggestions were made concerning information programmes for healthcare professionals, risk groups and the public. Finally, the proposals dealt with the use of prophylactic drugs against HIV and how to subsidise them.

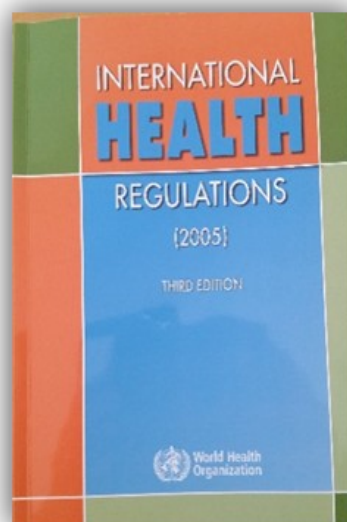
The Ministry of Health has entrusted the Directorate of Health with implementing some of the working group's recommendations, a work that will start soon.



Implementation of the International Health Regulations (IHR-2005)

At a meeting held in Munich by the WHO in February 2018, member states were encouraged to finalise the implementation of IHR in all areas. In May 2005, the World Health Assembly (WHO) adopted a revision of the International Health Regulations, which took effect on 15 June 2007.

The regulations are an internationally binding treaty aimed at preventing the spread of dangerous communicable diseases and diseases caused by chemical and radioactive substances across borders. The Regulations contain a number of provisions that concern Icelandic statutes and regulations on the prevention and health effects of



chemical and radioactive substances of international significance. By amendment of the Act on Health Security and Communicable Diseases, No. 19/1997, which came into force in the spring of 2007, it is stipulated that Iceland is bound by the Regulations and that the Chief Epidemiologist is Iceland's National Focal Point to the WHO on all matters relating to these Regulations. The implementation of preparedness and response plans for public health risks at the international airports in Iceland and in Icelandic ships and designated harbours have recently been completed.

Cooperation agreement on a preparedness and response plan for events caused by chemical, biological and radiological substances (CBRN)

The Chief Epidemiologist and the National Commissioner of Police have concluded a cooperation agreement on the preparedness and response plan for potential public health risks caused by chemical, biological or radiological substances (CBRN). The plan will be conducted in accordance with the

International Health Regulations (IHR-2005) and the organisational structure of the Icelandic Civil Protection Authorities. The template issued by the Civil Protection Authorities for preparing response plans will be used as the guideline for developing the plan. Work has already begun on the

search for references and making a work plan together with partners. It is expected that the final draft of this plan will be ready for practising and further review in the first half of 2019.



Emergency classification and injury assessment

New cards have been distributed

The National Commissioner of Police and the Chief Epidemiologist have signed an agreement with the Icelandic Association for Search and Rescue (ICE-SAR) stating that ICE-SAR assumes responsibility for the import and distribution of new supplies of Emergency Classification and Injury Cards (SMART-TAG). These are labels and bags available to responders in vehicles and at local ICE-SAR centres. The cards are used in an accident scene for the priority classification of the victims.

The Council of Ambulances is professionally responsible for this system on a daily basis under the authority of

the Ministry of Welfare. The cost of purchase and distribution of new cards is estimated at a total of ISK. 6.200.000. Regulation No. 100/2009 defines who is considered a responder in Iceland. The system of emergency classification and injury assessment was implemented in Iceland in 2008. Subsequently, the



Chief Epidemiologist purchased 300 bags and the Department of Civil Protection at the National Commissioner of Police was responsible for their distribution to responders. Last year, there was a lack of emergency cards and, on occasion, the cards were not available at an accident scene. With the introduction of new supplies this problem has been solved. The exercise cards will continue to be distributed by the Department of Civil Protection at the National Commissioner of Police for use in courses and mass accident exercises.