Embætti landlæknis
Directorate of Health

EPI-ICE
Chief Epidemiologist for Iceland

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Outbreaks in 2016

During the summer and early autumn of 2016 the following outbreaks and unusual infections were detected:

Campylobacter infections in Hrísey Island in Northern Iceland

In July, five individuals out of 13 who had stayed overnight in a house in Hrísey became ill with gastrointestinal symptoms. Campylobacter was isolated in stool samples from two of the symptomatic individuals. An investigation conducted by the Health Inspection of Northern Iceland showed that the potable water used in the house was taken from a certain well and proved to be contaminated with E. coli and campylobacter. This water was considered the cause of the infections since it had been consumed by all of those who became ill. Appropriate disinfection of the potable water was conducted with good results.

Food poisoning in Sandgerði in the South-West of Iceland

At a wedding held in Sandgerði in July attended by 60 guests, the majority became ill with stomach pain, vomits and in some cases diarrhoea. The food served had been prepared in Reykjavik and transported in thermal boxes to Sandgerði in an inappropriate manner according to the Health Inspection of Reykjavík. The Chief Epidemiologist conducted a case control study among the attendees in order to find the likely cause of the poisoning. Forty-five of the guests responded (75%) and 34 of them had become ill (76%). The results of the investigation showed significant association between the consumption of lamb (OR25, CI: 2, 9–364) and soup (OR 16, 4, CI: 1,2–219) at the wedding and illness. It was clear considering the symptoms and the incubation time that food poisoning rather than food infection was the cause of the outbreak. The most probable cause of such poisoning are the toxins of *Staphylococcus aureus*, *Bacillus cereus* and/or *Clostridium perfringens.* When the outbreak investigation was conducted all food items had already been discarded with the exception of the soup. The cause of the poisoning could not be traced but the lamb was considered most likely to be contaminated with toxin.

Outbreak due to influenza at the National University Hospital (NUH)

On 14 September 2016, the Department of Virology at the NUH reported two cases of influenza A (H3) at the Department of Geriatrics. According to the Department of Infection Control the first cases of influenza were detected on 6 September. During the period 13–24 September, nine patients were diagnosed with influenza, eight of them patients from the Department of Geriatrics or their relatives. Additionally, influenza was diagnosed in outpatients of the NUH and therefore not part of the hospital outbreak. The Department of Infection Control responded by giving anti-influenza drugs to those with influenza-like illness or as prophylactic treatment to those at risk of infection. All health care workers were offered influenza vaccination. In September, 3.420 were vaccinated, or 68 % of the work force. This is an unusual event because of the early emergence of the seasonal influenza this year and the number of health care workers infected. At the same time no signs of the influenza were detected in the community.

Tuberculosis

In the summer of 2016, an active infection due to tuberculosis (TB) was diagnosed in an asylum seeker from Africa

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on one hand and a Polish individual living in Iceland on the other hand. The asylum seeker had been X-rayed six months earlier and had then had a mild lung inflammation, discovered when the X-ray images were re-examined. This infiltration developed later into a cavern. Acid-fast rods were detected in sputum. The patient was admitted to the Department of Infectious Diseases at the NUH for treatment. The Polish patient, on the other hand, comes from a country with a higher incidence of tuberculosis than in Western Europe. Because Iceland is part of the European Economic Area (EEA), people from Poland do not have to undergo a special medical examination when arriving in Iceland and can therefore unknowingly be infected. For this reason it is of utmost importance to keep tuberculosis in mind when Europeans coming from areas where tuberculosis is widespread seek medical attention due to respiratory symptoms. Contact tracing due to possible TB infection is the responsibility of the Division of Communicable Disease Control of the Primary Health Care of the Capital Area.

In the fall of 2016, the Chief Epidemiologist was notified by the European Early Warning Response System (EWRS) of a child who had attended a nursery school in England and might possibly be infected with tuberculosis since one of the employees at the nursery school had been diagnosed with active tuberculosis in the spring of 2016. The child later moved to Iceland. The Chief Epidemiologist contacted the persons involved and arranged for further observations of the child and its relatives.

Measles on board an airplane

Last August a foreign child was diagnosed with measles in the UK. The child had travelled with Icelandair from Canada to the UK with a transit stop in Iceland. The EWRS notified the Chief Epidemiologist and subsequently almost all the passengers involved were contacted, both in Iceland and abroad.

Ten days later an Icelander in his fifties, who had been on the same plane as the child, fell ill and was later diagnosed with measles. The patient had not been vaccinated and never had measles before. He has recovered and is well now. No further transmission of measles has been detected in Iceland.

Follow-up on STDs and mumps

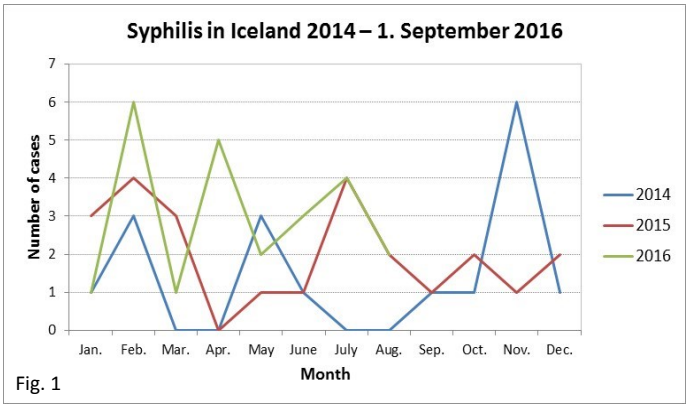

Fig. 1

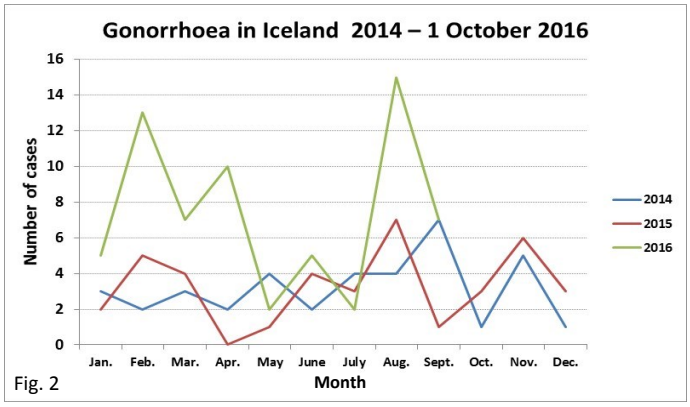

Fig. 2

In the preceding issues of EPI-ICE this year, the increasing number of those who have been diagnosed with sexually transmitted diseases (STDs), especially syphilis and gonorrhoea, was noted. It has been suggested that the use of condoms in sexual intercourse has diminished as a result of access to powerful treatment against HIV infection. The Chief Epidemiologist believes it is important to call attention to this development, especially among risk groups. Condoms should always be readily available at a reasonable price; screening for sexually transmitted diseases should be secured in maternal care and among other vulnerable groups.

Syphilis

In 2014, 17 cases of syphilis were diagnosed in Iceland and 24 cases in 2015. During the first nine months of 2016, 24 cases had been diagnosed, thus confirming a considerable increase in the disease in the last three years, cf. Fig. 1.

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Of those diagnosed with the disease, 90% are males, most of them males who have sex with males. The majority of those infected were 30–39 years of age.

Gonorrhoea

During the past three years the number of patients diagnosed with gonorrhoea has been increasing steadily, see Fig. 2. In 2014, 38 cases were diagnosed and in 2015, 46 people were diagnosed with the disease while during the first nine months of 2016, 68 were diagnosed with gonorrhoea. Most of these individuals are 20–29 years of age and 77% of them are males. During 2016, 70% of those diagnosed were males who had sex with males. So far the *Neisseria gonorrhoea* isolated has not been resistant to antimicrobial agents while antimicrobial resistance is a problem in many neighbouring countries.

Chlamydia and HIV infection

The monthly number of those diagnosed with chlamydia in 2016 is comparable with the number of cases diagnosed in 2015. During the spring of 2016 unusually many cases of HIV infection were diagnosed, with a peak in April (Epi-Ice, July 2016). During the first nine months of 2016, more people have been diagnosed with HIV than in the whole year of 2015.

Mumps

The outbreak of mumps that began in April 2015 and peaked in June the same year has now ebbed out. No one has been diagnosed with mumps since April 2016. During the outbreak, 85 people were diagnosed with mumps. Most of the patients were 20–25 years of age (mean age 27 years) and most were males (65%).

European collaboration on sanitary ship inspection

In recent years Iceland has participated in a European collaboration project on sanitary inspection of ships (SHIPSAN Joint Action). The collaboration aims at coordinating sanitary inspection in all kinds of vessels in order to reduce the possibility that infectious agents and toxic materials can spread between countries or become a risk for those travelling on board the vessels.

The first part of the project (SHIPSAN) started ten years ago and was aimed at improving sanitation and communicable disease control on cruise ships. The second part of the project (SHIPSAN TRAINET) was dedicated to issuing guidelines and organising structured training courses. A manual has been published for use in ship inspections (*European manual for hygiene standards and communicable disease surveillance*). The manual will be published yearly. The third part of the SHIPSAN project will be finalised in 2016. The purpose is to increase the training of health inspectors for ships and provide them with guidelines and educational material concerning responses to incidents which may occur in ships and harbours.

Also, a communication and information system has been developed in order to improve relations between the inspection bodies of different countries in Europe and to store data on ship inspections and the condition of vessels. A newsletter has been issued with information on the project which can be accessed on the website www.shipsan.eu. The European collaboration concerning sanitary inspection of ships is part of the implementation of the International Health Regulations (IHR) published by WHO. The Chief Epidemiologist is the National Focal Point for the IHR in Iceland.