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THE PANDEMIC INFLUENZA IN ICELAND IN AUTUMN 2009

Influenza-like illness

The first case of influenza A (H1N1)v 2009 was confirmed in Iceland in May this year. Influenza-like illness (ILI) was uncommon until mid July, when the number of ILI cases began to increase slowly as well as the number of laboratory confirmed influenza A(H1N1)v 2009. To examine the spread of influenza A(H1N1)v 2009, ILI cases from 29 July (week 27) have been analysed, see figure 1. In late September (week 39), the number of cases decreased slightly with expectations of a declining pandemic but, instead, the number of cases increased rapidly in the beginning of October and influenza became widely spread throughout the country. The increase in spread was most marked in mid October (week 42) when 1792 diagnoses of influenza-like illness were made, a triple number compared to the previous week. The following week (week 43), the weekly number of cases was at its peak, or 1954 cases. In late October and beginning of November, altogether 8650 persons had sought health care because of ILI, of which 3942 were males and 4618 were females.

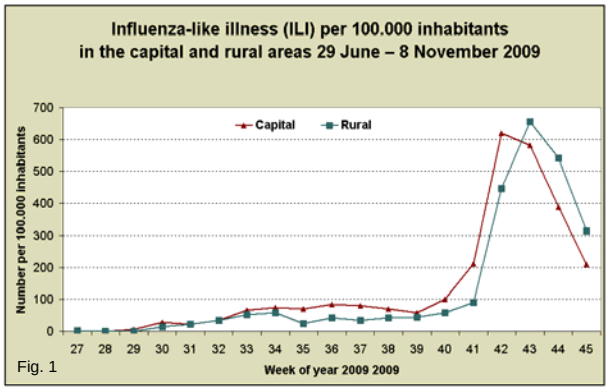

Fig. 1

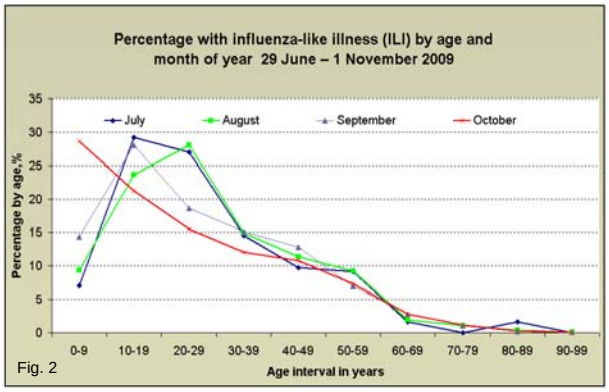

Fig. 2

Age distribution

In July and August, at the beginning of the pandemic, ILI was most common in the age group 15–30 years. As time passed there was a change in the age distribution, a relative increase was most apparent in the age group 0–9 years and ILI was most common amongst preschool and elementary-school children, see figure 2. Simultaneously, a relative decrease in the number of cases was observed in persons aged 15–30 years. Influenza-like illness has been uncommon in people over sixty compared to other age groups.

Geographical spread

The spread of influenza appeared earlier in the capital area compared with rural areas. The influenza in the capital was approximately one week ahead of the rest of the country, see figure 1. Certain differences appeared between rural regions, the influenza e.g. hit Husavik at a later stage than other areas in Northern Iceland and in the

Cont. p. 2

In late October and beginning of November the weekly number of cases began decreasing again and fell down to 797.

From 23 September to 9 November, approximately 170 patients have been hospitalised with either suspected or confirmed A(H1N1)v 2009 influenza.

east of the country the influenza came later to Vopnafjordur and Seydisfjordur compared to neighbouring areas. In late October and early November, the spread of influenza declined both in rural areas and the capital area.

Surveillance of ILI is based on its registration in almost the entire health care system.

Laboratory confirmed influenza A(H1N1)v 2009

On 8 November, 646 persons had been diagnosed with laboratory confirmed influenza A(H1N1v) 2009 at the Landspitali University Hospital (LUH) department of virology, of whom 320 are males and 326 are females. The first case of influenza A(H1N1)v 2009 in Iceland was diagnosed in the middle of May and a few weeks passed until others were diagnosed with the infection, but no significant increase was observed until the end of June. In July and August, the number of cases increased rapidly and at that time the origin of infection was monitored closely. In mid August, when sustained transmission of infection had been confirmed in Iceland, decreased sampling was recommended.

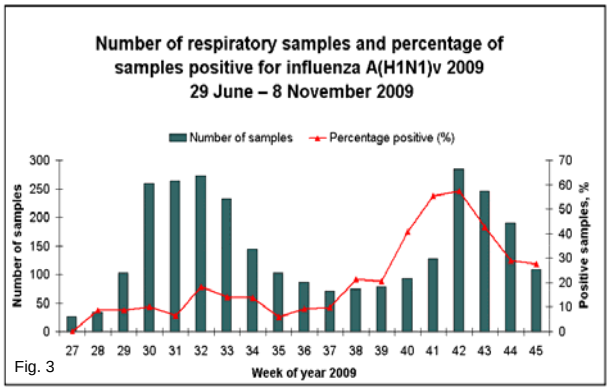

Fig. 3

Subsequently, the diagnosis of influenza was to be based on a physician's clinical examination, and samples obtained only from patients with severe illness and people with increased risk for serious illness. This led to a decrease in the number of samples and consequently decreased number of confirmed cases in late August. When the number of ILI cases increased in early October (week 41) there was a simultaneous increase in number of samples sent for influenza A(H1N1)v 2009 analysis, see figure 3. At the same time, the percentage of samples positive for influenza A(H1N1)v 2009 increased. In mid October (week 42) the number of samples and percentage of positive samples peaked, when 57% of 284 respiratory samples were positive for influenza A(H1N1v) 2009, see figure 3.

The weekly number of confirmed cases peaked in the same week (week 42), with a confirmed infection in 163 persons. Since then the number of cases has been decreasing, the infection was confirmed in 30 persons the week before last (week 45). Cases have been confirmed in people with residency in all regions. The changes in age distribution observed in people with ILI are also obvious among those with a confirmed infection. Other viruses causing respiratory infection have been rare and almost all positive samples are influenza A(H1N1v 2009.

Hospitalisations and casualties

One casualty due to the influenza has been reported, an 18-year old girl with underlying risk factors who died on 18 October 2009. From 23 September to 9 November, approximately 170 patients have been hospitalised with either suspected or confirmed A(H1N1)v 2009 influenza. The majority of these were admitted to the LUH in Reykjavik, or 133 patients, 19 of whom were admitted to the intensive care unit. The average age of hospitalised patients is 45 years, about one third of them without any underlying risk factors.

In rural areas influenza patients have also been hospitalised to some extent. The Akureyri Regional Hospital has admitted a total of twenty influenza patients, one of them to intensive care. In the Reykjanes region about ten people were admitted to the local health care institution and one or two patients have also been hospitalised in several towns across the country.

Gudrun Sigmundsdottir

New provisions pursuant to the Inernational Health Regulations

In 2005, the State Parties of WHO adopted new International Health Regulations (IHR 2005) which formally entered into force on 15 June 2007. The chief aim of the Regulations is to prevent the spread of diseases across borders, provide protection against such spread and contain it as well as making preparedness plans against threats to public health.

The State Parties must submit a list of ports authorised to issue Ship Sanitation Control Certificates.

The IHR (2005) contains provisions regarding points of entry that require each State Party to designate airports and ports that are supposed to develop a basic capacity for response as prescribed in Annex 1 of the Regulations. The State Parties shall also submit a list of ports authorised to issue Ship Sanitation Control Certificates or the Exemption of the Certificates for ships and they must also define a competent authority at each designated point of entry.

Pursuant to these provisions of the IHR (2005), the Ministry of the Environment has this year added a new article (no. 55) to the Icelandic Regulation No. 941/2002 on Hygiene and Health, which covers Ship Sanitation Control Certificates and the Exemption of the Certificates for ships. The ports authorised to issue these Certificates are listed in an annex to the Regulation No. 941/2002.

Haraldur Briem

The vaccine will be delivered in weekly shipments and it is anticipated that by the end of November a total of 100.000 doses will be received.

Vaccination against swine influenza

Iceland has purchased 300.000 doses of the influenza pandemic vaccine *Pandemrix®* which is produced by GSK. The first shipment arrived on the 15th of October and by the end of October 50.000 doses had been delivered. The vaccine will be delivered in weekly shipments and it is anticipated that by the end of November a total of 100.000 doses will be received and 200.000 doses by the end of the year.

The first priority groups to be vaccinated were health care personnel, security groups and individuals with underlying diseases. By the end of November the vaccine will be offered to the public.

According to interim results of immunogenicity studies of the vaccine, the Icelandic Health Authorities have determined that one dose of the vaccine will provide adequate protection against the influenza A(H1N1)v 2009 in all age groups.

Thorolfur Gudnason