



DIRECTORATE
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Pandemic influenza 2009 **P-1-3**

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PANDEMIC INFLUENZA 2009

The first three months of pandemic influenza in Iceland

The first patient in Iceland with influenza due to the new virus strain A(H1N1)v 2009 was diagnosed in May this year. Relatively few patients were diagnosed until mid July. Since then, there has been a steady increase of patients diagnosed with the new influenza. According to the Dept. of Virology at Landspítali University Hospital, the total number of confirmed cases was 183 in mid September (fig. 1). Of those confirmed, 98 were males and 85 were women. Influenza A(H1N1)v has now been confirmed in all parts of the country except the Westman Islands. Initially, the influenza was mainly diagnosed among travellers arriving from abroad but as time went on a proportionally larger group was infected domestically (fig. 1).

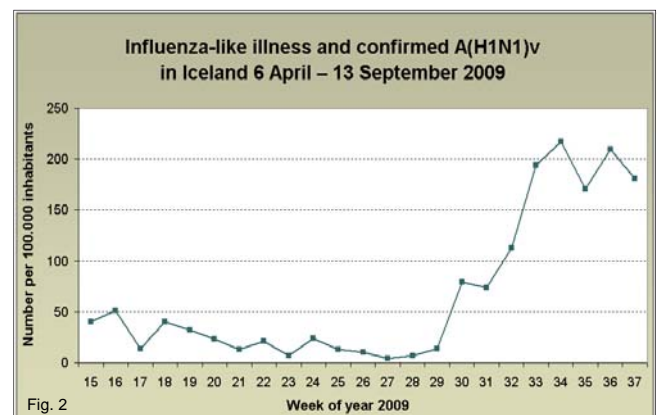
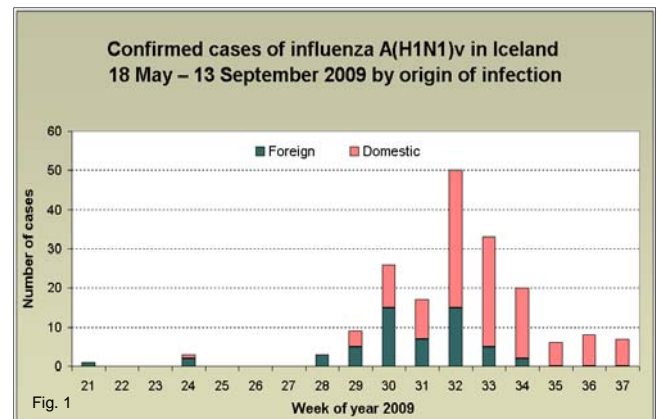
Reduced sampling was recommended in week 33 (14 August) when samples were no longer to be obtained for virological confirmation from all suspected cases. This explains the reduction in the number of cases since week 33. Nevertheless, it was recommended that samples should be obtained from patients with serious influenza symptoms, especially those who needed antiviral treatment, and from patients with serious underlying diseases.

Electronic surveillance on symptoms of influenza

Electronic registration of influenza diagnoses in patient records was introduced in the health care

system in June. The new system extends to almost the entire primary health care service and all hospitals in the country. During a pandemic, influenza is subject to registration and influenza cases are now reported automatically to the Chief Epidemiologist within 24 hours from the attending physician's confirmation of the disease. The diagnosis is mostly based on physical examination but in some cases on viral laboratory confirmation. Data has been collected since 1 April this year.

To examine the epidemiology of influenza A(H1N1)v 2009, data reported before week 27 (29 June) was excluded and data



Cont. p. 2



In the beginning of September, a poster was published with advice on how to protect oneself and others against the new influenza.

The poster has been distributed to schools, large workplaces and other frequented places.

reported since then was analysed. In the period from April to June, the remains of seasonal influenza activity can be observed, with several cases of influenza B (fig 2). Very few influenza cases were reported in early July but the number increased from mid July. After mid August (week 33) the number of cases peaked and has remained high since then (fig. 2).

From the end of June until mid September, the total number of reported influenza cases had reached 1264 of whom 570 were males and 694 were women. The spread of the influenza was most marked in the Southwest of Iceland. In the Capital Area, the number of cases has remained high but in other parts of the country the number has been falling since late August (fig 3).

Age distribution

The age distribution of confirmed cases of influenza A(H1N1)v 2009 and cases of suspected influenza according to the electronic patient records is similar. The influenza is most common in the age group 15–34 years.

A considerable number of influenza cases is reported in the age group 35–60 years according to the electronic reporting system, but the number of influenza cases declines after sixty (fig. 4).

Symptoms and treatment

The symptoms of influenza A(H1N1)v have in most cases not been serious. Typical symptoms are fever, sore throat, coughing, headache, muscle aches and in some few cases gastrointestinal symptoms (vomiting or diarrhoea). Most of the patients recovered quickly. Only one patient was hospitalized, an 18-year old female with underlying asthma who recovered quickly.

Out of 183 confirmed cases, only 23 received antiviral treatment, 150 confirmed cases received no treatment and information on treatment is missing for 10 cases.

Vaccination against influenza A(H1N1)v 2009 in Iceland

The Icelandic health authorities have purchased 300,000 doses of vaccine against the new influenza, sufficient to vaccinate at least half of the population. The vaccine is produced by GSK and the first shipment is expected to arrive in October. The rest will be delivered in monthly shipments until January 2009. It is anticipated that each individual will need two doses of vaccine for maximum coverage. It is possible however that one dose may provide full coverage.

The following target groups will be vaccinated initially:

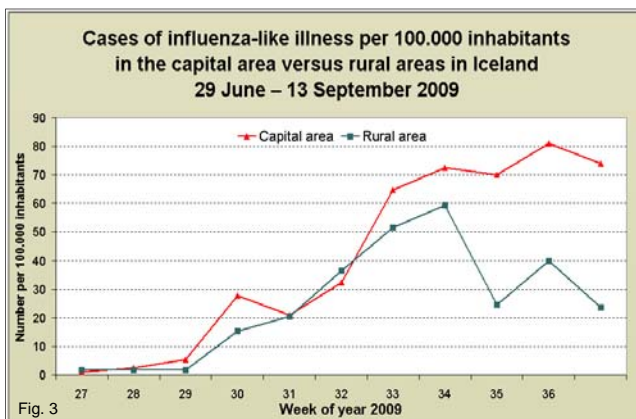


Fig. 3

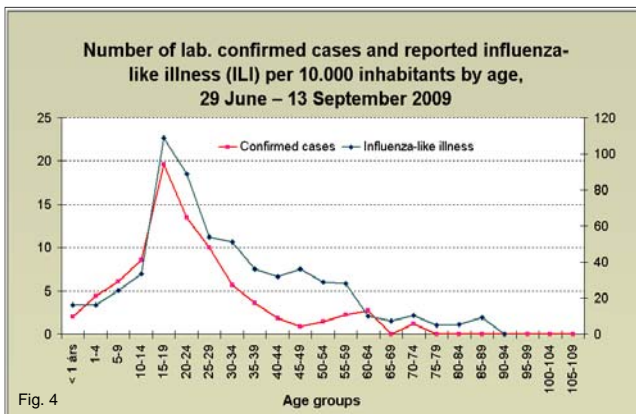
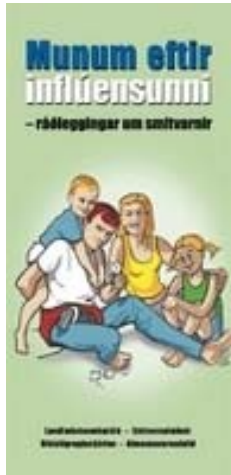


Fig. 4



In June, a pamphlet entitled „Keep the influenza in mind – recommendations on how to prevent infection“ was published. This was the second, updated edition of the pamphlet.

At present, an electronic publication of the pamphlet is being prepared in four languages, English, Polish, Russian and Thai.

Target group I

- *Patients* with the following underlying diseases:
 - *Serious heart conditions* (heart failure and serious congenital heart diseases)
 - *Serious respiratory diseases* that need continuous prophylactic medication (including asthma)
 - *Metabolic disorders* (insulin dependent diabetes, corticosteroid deficiency)
 - *Neurological disorders* that may compromise respiration
 - *Serious kidney diseases*
 - *Serious liver diseases* (cirrhosis)
 - *Immunodeficiency*
- *Families of children under 6 months* of age with any of the above diseases. The vaccine is not licensed for children under 6 months.
- *Pregnant women* who are at an increased risk of becoming seriously ill from influenza.
- *Obese people* (>40 in body mass index).
- *Health care workers* and caretakers working in nursing homes and homes for disabled individuals.
- *Policemen, rescue workers, fire fighters and paramedics.*

Target group II

When target group I has been fully vaccinated target group II will be offered vaccination. Target group II includes:

- *Healthy children aged 6 months to 18 years.*

The remaining vaccine will then be offered to all other citizens in Iceland.

Individuals will be vaccinated only at health care centres, the Landspítali University Hospital and the Akureyri Hospital in the North of Iceland.

Preparation by epidemiologists and police commissioners

It is of vital importance that the vaccination campaign against the pandemic influenza will be successful. This vaccination project is one of the largest ever in this country. Therefore, the Chief Epidemiologist and the National Commissioner of the Icelandic Police have organised weekly telephone conferences with regional epidemiologists and police commissioners in order to discuss the execution of the vaccination campaign.

Expectations

There are indications that the first wave of the pandemic influenza 2009 will peak in September. WHO estimates that the second wave of the pandemic will strike the Northern hemisphere later this autumn or next winter. It is hoped that as many as possible will be vaccinated before the second wave hits Iceland. At the same time, seasonal influenza vaccination will be offered to risk groups as before because it is unclear whether or not the pandemic influenza has replaced the seasonal influenza.

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