

## Icelandic Pandemic Influenza Preparedness Plan. Issue 2, 2016

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## Introduction

The Icelandic Pandemic Influenza Preparedness Plan was reviewed and published again in 2016 along with a short summary in English. The plan has a multisectoral approach reflecting the global influenza phases of WHO – interpandemic, alert, pandemic and transition – and has been integrated into the Civil Protection Management system of Iceland.

In the new version of the Icelandic Pandemic Influenza Preparedness Plan, monitoring and analysis of the pandemic has been further defined and, in view of the increasing number of tourists in Iceland, the Tourist Association Board of Iceland has now been given a defined role during a pandemic phase.

Risk assessment for the National Preparedness Guidance is based on the scenario of the Spanish flu which struck Reykjavik in the winter of 1918 and also on the lessons learned from the Influenza A (H1N1) that struck in 2009. At that time the Plan was activated in close cooperation between the Chief Epidemiologist of Iceland and the Civil Protection Authorities.

## Objectives of the Icelandic Pandemic Influenza Preparedness Plan:

The contingency plan aims to minimize the effect of an influenza pandemic in Iceland by:

1. Preventing (or delay as possible) the epidemic from reaching Iceland.
2. Minimizing the risk of infection and reducing the spread of influenza.
3. Maintaining the infrastructure of the Icelandic society.
4. Coordinating the approach of mitigation and ensuring effective and efficient flow of information within the health sector, between health and other sectors and to the public.
5. Providing health service for all the sick during the pandemic phase.
6. Increasing the surveillance and monitoring of the pandemic.

## The Phases of Disaster, issued by the Civil Protection Authorities of Iceland are three:

**Uncertainty Phase (*Óvissustig*):** Uncertainty Phase is characterized by an event which has already started and could lead to a threat to people, communities or the environment. At this stage the collaboration and coordination between the Civil Protection Authorities and stakeholders begins. Monitoring, assessment, research and evaluation of the situation is increased. The event is defined and a hazard assessment is conducted regularly.

**Alert Phase (*Hættustig*):** If a hazard assessment indicates increased threat, immediate measures must be taken to ensure the safety and security of those who are exposed in the area. This is done by increasing preparedness of the emergency and security services in the area and by taking preventive measures such as restrictions, closures, evacuations and relocation of inhabitants. This level is also characterized by increase in public information, advice and warning messages.

**Emergency Phase (*Neyðarstig*):** This phase is characterized by an event which has already begun and could lead, or already has led to, harm to people, communities, properties or the environment. At this stage, immediate measures are taken to ensure security, save lives and prevent casualties, damage and/or loss.

## **Adaptation of the Global phases of WHO to the Icelandic Phases of Disaster**

*Uncertainty Phase in Iceland* corresponds to the Global Alert Phase of WHO.

*Alert Phase in Iceland* also corresponds to the Global Alert Phase of WHO.

*Emergency Phase* in Iceland corresponds to the Pandemic Phase of WHO.

## **Activation of the Icelandic Pandemic Influenza Preparedness plan**

The Chief Epidemiologist for Iceland is responsible for the activation of the plan in accordance with national risk assessment and in consultation with Civil Protection Authorities. The phase of activation is announced in accordance with activation of the plan.

The Chief Epidemiologist shall inform the Minister of Health of the activation of the disaster plan as soon as possible.

## **Early warning**

The chief Epidemiologist for Iceland informs regional and district epidemiologists and professional officers of health care centres and hospitals. He also informs the Icelandic Medicines Agency, which in turn informs distributors of medicine, medical devices and orthopaedic products, the Icelandic Food and Veterinary Authority and the Environment Agency of Iceland.

The civil protection authorities inform the Chief of Police in each district, the Icelandic Association of Local Authorities, the fire brigades, the Icelandic Transport Authority, the Icelandic Tourism Board, the Federation of Employers, unions and other workers' organizations, prison authorities, the Bishop of the Icelandic Church, the funeral services, the Icelandic Association for Search and Rescue, the Icelandic Red Cross, and other agencies mentioned in the disaster plan.

## **Cancellation**

The Chief Epidemiologist for Iceland is responsible for health security and communicable disease control and recommends and postpones public measures regarding a pandemic in consultation with the Civil Protection Authorities and in cooperation with the regional and district epidemiologists of Iceland.

## **Communication strategy**

Health and health control measures are the responsibility of the Ministry of Welfare. Government control measures which aim to reduce public health risks are the responsibility of the Chief Epidemiologist for Iceland on behalf of the Ministry of Health. In the event of a serious pandemic influenza that could profoundly affect the entire community, it is important to involve all ministries to implement the necessary measures in aim to protect public health.

The Chief Epidemiologist for Iceland responds to public health threats according to the Act on Health Security and Communicable Diseases, No. 19/1997. He is responsible for increased monitoring, risk assessment, risk evaluation and response as well as for providing advice, sharing information and increasing the flow of information, both domestically and abroad (WHO, ECDC, HSC, Nordic Cooperation).

According to Regulation No. 387/2015, Iceland is divided into seven epidemiological regions and districts headed epidemiologist that are responsible locally for health control measures in cooperation with the Chief Epidemiologist for Iceland.

The Civil Protection Authorities are responsible for responding to consequences of an influenza pandemic together with the Chief Epidemiologist according to a the Icelandic Influenza Preparedness Plan. This includes the management of general measures to keep social infrastructures operable and support for official measures against communicable diseases.

A Joint Rescue and Coordination Centre (JRCC) is operated by the Civil Protection Authorities of Iceland. The JRCC-Iceland is located in Reykjavik and is fully activated when the Emergency Phase of the Icelandic Pandemic Influenza Preparedness Plan has been declared. Coordination, support to the epidemiological regions, management of the response and risk/disaster communication are the main tasks of the JRCC. The authority responsible for the work of the JRCC is the National Commissioner of the Icelandic Police in cooperation with the Chief Epidemiologist for Iceland. The staff of the JRCC is trained to work according to the Incident Command System (ICS). The ICS is structured so as to facilitate activities in five major functional areas: command, operations, planning, logistics, intelligence & investigations, and finance and administration. It is a fundamental form of management in all hazard situations, with the purpose of enabling incident managers to identify the key concerns associated with the incident—often under urgent conditions (fig. 1).

The crew of the JRCC in a pandemic represent all responders who have a role in the response. Health care professionals working in the JRCC are employees of the Landspítali University Hospital in Reykjavík.

Emergency management, coordination of response and communication within the epidemiological regions and districts in a pandemic is the responsibility of the District Commissioner of Police and the regional and district epidemiologists. These parties are provided with support from the JRCC as needed. Operational and on site management in each municipality of Iceland is carried out by the local physician, the major and the local police officer (fig. 1).

<b>Joint Rescue Coordination Centre – Reykjavik</b>		
<b>The Chief Epidemiologist</b>		<b>Civil Protection Authorities</b>
<b>Pandemic management within the epidemiological regions</b> <b>Locations:</b> Reykjavík, Borgarnes, Ísafjörður, Sauðárkrókur, Akureyri, Eskifjörður, Hvalsöllum, Vestmannaeyjar, Reykjanesbær		
<b>District Epidemiologist</b>		<b>Commissioner of Police</b>
Responsible for risk management, risk and disaster communication to the health care professionals within the region.  <b>Alternate:</b> Physician		Responsible for risk management, risk and disaster communication to responders and to all competent bodies of critical infrastructure within the region.  <b>Alternate:</b> Deputy Chief of Police
<b>Operational and on site management (appointed if needed)</b>		
<b>Local health care professional</b>	<b>Mayor</b>	<b>Local police officer</b>
Flow of information and to health care providers within the area.  Feedback to district epidemiologist	Management of critical infrastructure within the area.  Feedback to district epidemiologist and to the Commissioner of Police	Flow of information to local responders and critical infrastructure within the area.  Feedback to Commissioner of Police

**Figure 1. Chart showing flow of information**

Competent authorities within the epidemiological regions maintain a list of important critical infrastructure sites (community capacity) within the districts:

1. Headquarters of the Commissioner of Police.
2. Office of the District Epidemiologist and stockpiles of vaccines/medicine (fig. 2).
3. Main food centres and gas stations (food security).
4. Healthcare and influenza receptions.
5. Financial institutions and ATMs (business continuity management).
6. Funeral homes.
7. Churches and other religious premises (psychosocial support).
8. Closures of roads (fig. 3).
9. Airports and ports.
10. Places for disposal of garbage/sanitation (residential areas).
11. The Icelandic Association for Search and Rescue and Icelandic Red Cross facilities (shelters).

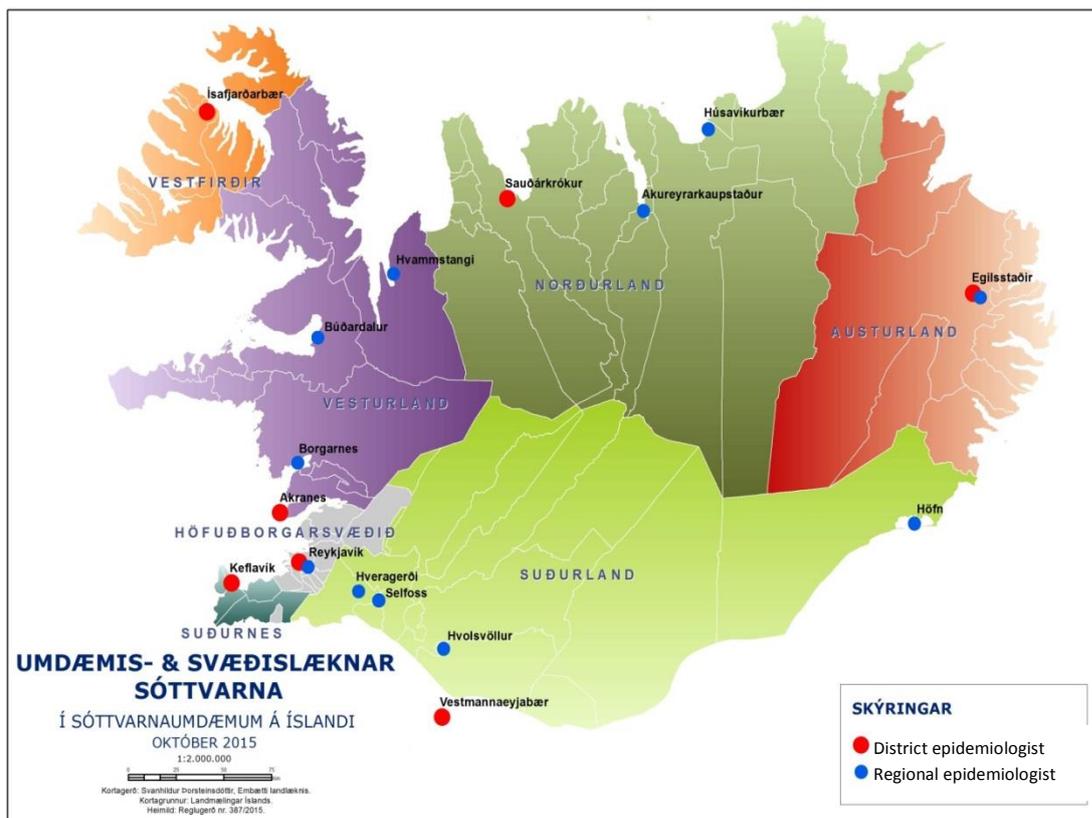
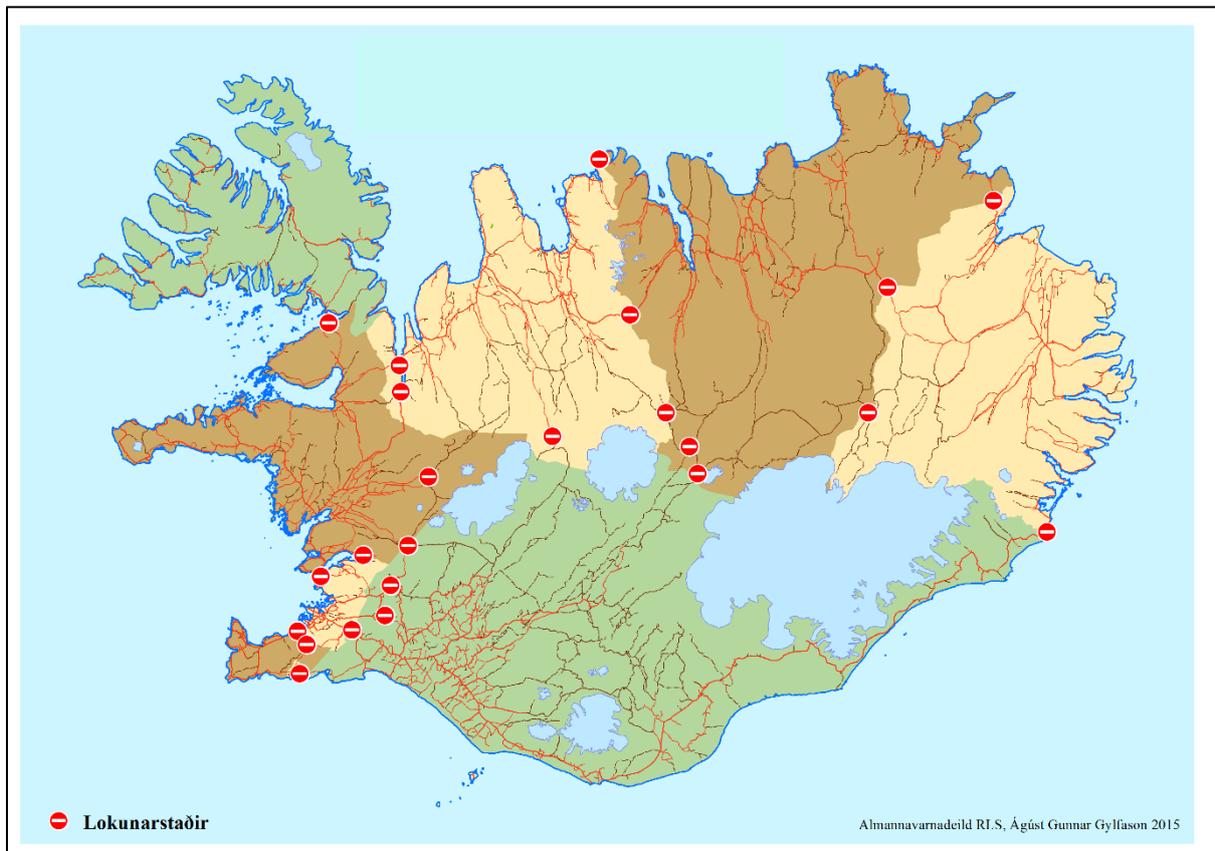


Figure 2. The epidemiological districts of Iceland and headquarters of District Epidemiologists



**Figure 3. Police districts and possible closures of roads in a pandemic**

### Risk assessment – Iceland

As pandemic viruses emerge, the country and its regions face different risks at different times. The national risk assessment and risk management decisions are built on local circumstances while also taking into consideration the information provided by global assessment (WHO, ECDC, HSC).

The aim of making a multisectoral contingency influenza plan for Iceland is to delay the spread of the pandemic virus and reduce its serious consequences. The plan is based on the presumption that the economy of Iceland will be paralyzed for 2–3 weeks. The plan assumes enough flexibility to accommodate for different consequences.

The Icelandic influenza preparedness plan is based on two scenarios, one severe pandemic (50% attack rate 3% case fatality ratio) and another milder case (25% attack rate and 1% case fatality ratio).

## Early warning and surveillance

Early warning and surveillance is based on national monitoring and local risk assessments. Its aim is to ensure that a mechanism is in place to detect, assess, notify and report events. In a pandemic period the national surveillance mechanism will be strengthened to collect up-to-date virological, epidemiological and clinical information.

The pandemic influenza will be made notifiable in Iceland in order to obtain personal data with detailed information on patients who are diagnosed with confirmed infection. Hospital admittance due to influenza will be monitored as well as antiviral therapy, vaccination and other measures.

In a pandemic the Chief Epidemiologist for Iceland will collect information from:

- Virology Department of the Landspítali University Hospital, - Confirmed influenza cases.
- Health care centres and physicians,-
  - Clinical reports of confirmed influenza cases
  - Vaccination in pandemic influenza
  - Use of antivirals
  - Use of emergency stockpiled antivirals and other medicines
- Medical records, -flu-like symptoms
- Hospital admissions, - due to influenza
- Weekly mortality rate in the country

Other unconventional monitoring will be considered such as monitoring absenteeism in Icelandic schools.

## Responders that have a role in the Icelandic Pandemic Influenza Preparedness Plan

The following institutions/organizations/companies have a registered role in the preparedness plan 1. The Joint Rescue Coordination Centre:

1. The National Commissioner of Police and the Civil Protection Authorities
2. The District Commissioners of Police
3. The Chief Epidemiologist for Iceland
4. The District Epidemiologists
5. The Directorate of Health
6. Hospitals and health care centres
7. Ambulance services
8. The Icelandic Medicines Agency
9. The Post and Telephone Administration of Iceland
10. Icelandic Food and Veterinary Authority

11. Grocery distributors
12. Oil companies and gas stations
13. The Icelandic Transport Authority
14. The Farmers' Association of Iceland
15. 112, the National emergency telephone number
16. The Icelandic Road and Coastal Administration
17. Isavia, Centre for Aviation in the North-Atlantic
18. The Icelandic Coast Guard
19. The Icelandic Tourism Board
20. The Central Bank of Iceland and other financial services
21. The Icelandic National Broadcasting Services (RUV)
22. The Environment Agency of Iceland
23. The Federation of Energy and Utility Companies in Iceland
24. The Icelandic Association of Local Authorities
25. The Confederation of Icelandic Employers
26. The Icelandic Red Cross
27. The Icelandic Association for Search and Rescue
28. The Prison Authorities of Iceland
29. The Bishop of the National Church of Iceland
30. Funeral homes

## **Distribution**

The Icelandic pandemic influenza preparedness plan is available at these websites:

Civil Protection Authorities: [www.almannavarnir.is](http://www.almannavarnir.is)

Directorate of Health: [www.landlaeknir.is](http://www.landlaeknir.is)

Website for seasonal influenza: [www.influenza.is](http://www.influenza.is)