



## **Fighting Strategy COVID-19**

### **Iceland**

#### **1. What is the COVID-19 fighting strategy of your government (National, local)?**

On March 6<sup>th</sup> the Chief Epidemiologist and the National Commissioner of the Icelandic Police's Department of Civil Protection and Emergency Management declared the highest alert level — an emergency phase— as a result of the outbreak of the novel coronavirus that causes the COVID-19 disease. This was done in accordance with the Pandemic National Response Plan. These measures primarily affect key institutions and companies in Iceland, so that they will take the action necessary to address the genuine threat stemming from COVID-19.

The objective of the measures taken by Icelandic authorities have from the beginning had a clear purpose, that is to ensure that the necessary infrastructure — particularly to include the healthcare system — can withstand the strain that the illness will cause in Iceland.

In the beginning the aim was to spread out the strain over a longer period so that healthcare institutions in Iceland can provide the best possible care to all (flatten the curve).

The main strategy has several components:

- Early definition of high-risk areas
- Quarantine requirements of all residents returning from areas abroad.
- Vigorous testing of symptomatic individuals
- Large-scale screening for COVID-19 in asymptomatic volunteers
- High infection tracing rate (over 95% to date)
- Quarantine requirements for anyone who has been in contact with infected individuals
- Home isolation for those infected
- The development of a prediction model for the number of individuals diagnosed with COVID-19 and the corresponding burden on the health care system.

## **2. What is the strategy towards the population (Mask wearing, containment ...)?**

- Continued emphasis on simple infectious control measures such as washing and disinfection of hands and social distancing.
- Ban on larger gatherings (20-person limit from March 24<sup>th</sup> to be changed to 50-person limit from May 4<sup>th</sup>)
- Social distancing – 2-meter rule
- University and upper secondary school-closures. Limited opening of elementary schools and preschools.
- Active communication with the general public, including daily press briefings
- Access to information via the covid.is website with all current and relevant information continuously updated in nine languages.
- Advertisements promoting hygiene, awareness, common responsibility.

The premise for these actions is the creation of a community-wide consensus: that we all agree to follow expert advice and participate together in this endeavor. Infectious diseases affect individuals' health, but they also affect the well-being of the entire community. Civil protection is in our hands.

## **3. Are there enough masks for the population in your country?**

We have not promoted nor advised the public to use masks or gloves in their daily lives. We believe the use of such protective measures more likely to provide false sense of security and reduce the level of awareness needed to sustain proper infection control measures (hand cleansing and social distancing).

## **4. Are there enough masks and personal protective equipment for health professionals?**

We have had an abundance of surgical masks throughout the pandemic but were concerned with our supply status for FFP2 and FFP3 masks as well as face shields. We were however able to procure adequate supplies in time to last through the current pandemic and to at least sustain another wave of the same size.

## **5. What is the biological screening strategy (Polymerase Chain Reaction – PCR, serological tests)?**

The strategy is to test as many as possible, both symptomatic persons and screen the general public. We were able to perform the appropriate PCR in the beginning of February. The first positive test result came in on February 28<sup>th</sup>. Since then we have had close to 50.000 tests done yielding 1800 positive tests. In the last days of April, we have experienced several days with no positive tests despite continued testing efforts.

## **6. Do you have enough biological screening tests?**

Our supply of the preferred viral swabs was below the optimal state at one point. However, we did have an abundance of other types of swabs that could well be used as an alternative. We also got to a critical point with reagents at one point which resolved quickly.

## **7. Do you have enough beds for inpatients? (intensive care and other)**

We used the numbers of positive tests per day and the forecast model among other things to help us plan for several scenarios. Part of the plan was to stop all elective surgery and invasive procedures to free up beds and other resources. We followed the most likely forecast for the need for general hospital beds but a slightly worse forecast for ICU beds. Worst case scenario would have exhausted our ICU beds but all the measures taken by the government to spread out the strain combined with a novel ambulatory/urgent care service developed specifically around Covid19 patients (see item 12) all helped match the hospital's capacity to the demand.

## **8. Do you increase the number of intensive care beds in your country?**

We have a fairly low number of ICU beds per capita in a normal situation for a variety of reasons. During this pandemic we made plans to increase the numbers almost fourfold. We made plans to use recovery areas and surgical suites as ICU facilities.

## **9. Do you have enough human resources to manage the epidemic?**

We moved a lot of staff around such as surgical and anesthetic nurses, residents and senior physicians. Every health care worker who was freed up from their usual tasks because of immense changes made in the service delivery was utilized in one way or the other - all hands were on deck. There was an appeal made by the health authorities to health care providers working outside healthcare or even newly retired to come back and help. The biggest threat was shortage of experienced intensive care nurses.

## **10. Do you have guidelines for good practices between healthcare teams and physicians in the context of the COVID-19 crisis?**

We use guidelines from the office of the Chief Epidemiologist, from ECDC, WHO and CDC.

## **11. What are the main challenges for hospital managers during the COVID-19 crisis?**

The main challenges revolve around the uncertainties inherent in pandemics. As the traditional hospital system must be changed dramatically and quickly it is crucial to make decisions very fast and change them or abandon just as quickly. The plan must be made on the go, following the development of the pandemic, using forecasts and the experience of other countries to learn from and support the plan. The advice of experts is important and, in many cases, forms the basis of systemic changes. Procurement of necessary supplies is a challenge as usual supply lines dry up very quickly. It is important to empower staff to come up with new ways of doing things, using the creativity of well-educated and dedicated people. Maintaining a sense of solidarity, trust and hope is a challenge, asking people to do impossible things is a challenge and seeking to be one step ahead always is a challenge.

## **12. Other important information?**

**C19-Outpatients / Outreach Clinic:** When the first positive C19 cases were identified, the infectious disease specialists started to call them daily to check on them and monitor their symptoms. This very quickly became a huge task and more people had to be recruited to perform this surveillance. Nurses and physicians in quarantine were recruited for a while but as the group grew bigger the need to see some of the patients, do bloodwork and other tests became apparent. The phone calls soon proved to be a very effective way of both spotting those at risk of developing a severe form of C19 as well as giving advice, reassuring, explaining thus helping people manage their symptoms at home and prescribing appropriate medications. An abandoned housing facility on the hospital premises was changed into a clinic where health care providers were able to receive and assess patients that were not doing well at home. Staff was recruited from areas that had shut down or greatly reduced their services to work in the clinic.

Some patients had to be admitted to hospital straight from the clinic while most were able to go home and continue to be monitored with daily phone calls. The clinic got a list of positive test results several times a day throughout and every individual in the country was on their call list except for those in hospital. To date we have had 104 admissions, thereof 27 who have needed ICU. This proved to be within our capacity, but it is very likely that in the absence of the C19 clinic, admissions would have been a lot more, probably stretching our capacity severely.