

Distance meeting — Denmark (Greenland)

Pipaluk

— telemedicine workstation helping
Greenlanders



Summary

The population of 60 settlements in Greenland has a Pipaluk (Greenlandic girl's name meaning "The Careful") – a telemedical workstation based on searchability, satellite and internet technology. The equipment is of moderate size although, measured in terms of capacity, it comprises a multi-arm squid connected to cables for various investigators such as a webcam, Skype, ECG equipment, provision for measuring blood pressure, pulse, temperature, as well as a stethoscope.

Main effects of the solution

People who live in rural areas far from accessible medical care can now get help closer to home at the Pipaluk. This means that people don't have to travel far. Nor do they have to wait a long time before consulting a health professional.

Users

People living in rural settlements in Greenland who need basic healthcare services.

Quotes/Testimonials

"Generally, Greenlanders are positive about the telemedicine service and consider it an opportunity to gain easier access to diagnostics, treatment and follow-up when they live far away from medical care. However, they face challenges that can make it difficult beyond geography; namely the language barrier – including within the borders of their own country, as well as when communicating with Danish doctors".

– Lise Hounsgaard, Professor OPEN, OUH and SDU

Elaboration

Needs and challenges

Visiting your own doctor, contacting a doctor and casualty department and being treated within a short time frame is not a commonplace occurrence for the whole population of Greenland. The nearest hospital may be several hundred kilometres away.

If a Greenlander is in a kayak, on a dog sled or on foot in the wild, accessing the internet is very difficult. Thus, Greenlanders live dangerous lives when they become acutely ill or have an accident.

Solution and function

The idea is to create equal access to health care. Every health station has a health worker who is solely responsible for receiving patients and taking measurements, as well as communicating with various specialists from Queen Ingrid's Hospital in Nuuk or one of the Danish cooperating hospitals.

Pipaluk's purpose is to create opportunities for better access to medical and healthcare consultations during video conferencing due to the great distances to medical clinics and hospitals in Greenland.

Implementation

Significant organisational attention is required in order to make the solution work. Experience has shown that successful implementation and operation depends on the presence of committed and motivated employees supported by management at every level.

Pipaluk is implemented in Greenland as part of a national goal to bring health care closer to the people living in sparsely populated areas and create equal access for all people living in the country. In 2008, the telemedicine store-and-forward solution "Pipaluk" was installed in 70 Greenlandic cities and settlements.

Unfortunately, the implementation of Pipaluk did not work as intended. It was thus not used to the extent expected in the Greenlandic health service. In 2012, a new strategy was therefore launched with a focus on education of healthcare personnel in the settlements in the use of Pipaluk as a health technology solution in everyday life. But despite further prioritization in 2014, Pipaluk is not used consistently in the Greenlandic health service.

In 2015, after seven years with Pipaluk in all cities and settlements in Greenland without the expected effect, a project was initiated in cooperation between the Greenlandic health service, the University of Greenland and academic collaborators from Denmark and the USA on the citizens' views on the use of telemedicine in everyday life. The focus was on identifying the challenges and opportunities that citizens had in the use of health technology, including Pipaluk.

Five themes were identified concerning challenges and opportunities in the use of health technology in Greenland. The citizens found that the use of telemedicine creates a sense of security, and experienced trust in Pipaluk. They found that telemedicine creates opportunities for a doctor or other health professional to assess measurements and images in the consultation despite the physical distance. This created a sense of security among the citizens surveyed. At the same time, citizens are aware that the use of telemedicine is dependent on the skills of the health professional present to apply health technology.

Economy

The solution reduces travel costs within Greenland and from Greenland to Denmark. Now inhabitants can receive check-ups and an evaluation as to whether it is necessary for them to travel to see a specialist.

There are costs related to procuring and installing technical equipment and costs related to training health workers.

Process

The technical set-up will need to be in place and health workers in rural settlements will need to be hired and trained.

Professionals at the hospitals will have to get used to not seeing all of their patients in person and diagnosing at a distance, as well as being able to decide whether a hospital visit is required. were informed early in the process.

Communication

Citizens and health professionals communicate via video.

More about effects

The solution will help increase equal access to health care and provide more opportunities to people living in rural settlements who would otherwise have had to travel far and risk their wellbeing.

The solution will avoid a lot of unnecessary travel for the citizens. It will offer security as citizens will not have to wait too long to be diagnosed and start potential treatment.

Further information

- [Information about pipaluk at Dansk Sygeplejeråd »](#)
- [Article about pipaluk at Odense University Hospital »](#)

Context

The Greenland model for using telemedicine differs somewhat from other countries. The use of telemedicine focuses on the part of the patient process that in Denmark would usually take place at the hospital itself. In Greenland, telemedicine is used throughout the patient's pathway both for visits and diagnosis as well as for controls. The reason why telemedicine is used in the overall patient pathway relates to both competence and geographical conditions, as we want to bring specialists closer to citizens without using costly transport.

Telemedicine is therefore used both internally in the health service in Greenland and in relation to external partners who provide healthcare services to patients in Greenland.

Name of the service

Pipaluk