

Distance treatment — Sweden, Denmark

Virtual health rooms

— faster diagnosis and treatment



Summary

Virtual health rooms have been established in rural municipalities in the region of Västerbotten in Sweden and in the northern parts of Denmark. Both versions focus on bringing health care closer to citizens. The Swedish concept allows patients to monitor their own health by offering several different tests, with or without assistance, in a location close to their homes. The results of most of the tests are transmitted directly to a database, without the need to enter them manually in the system. Video consultations can be conducted between patients and healthcare professionals. The Danish solution focuses even more on distance consultations between patients and healthcare professionals at a hospital via a video conference system, with the option to take basic measurements.



Picture of a Virtual health room in Denmark

Main effects of the solution

Effects for the patient

- Increased access to health care, making it more equitable in the region.
- Shorter time to diagnosis and possible treatment.
- Reduced travel, with positive effects for both the economy, time and safety.
- Health rooms also fulfil a social function as they become a natural meeting place when staff are present in the room.
- Patients don't have to buy their own medical equipment, for example, a blood pressure monitor. Instead, they can share it with other members of the community.

Effects for the care giver

- Patients with more serious conditions can receive more attention since other patients can monitor their own health to a greater extent.
- Reduced cost of patient travel.
- Reduced cost of staff travel.

Other effects

- Positive effects on the environment as a result of reduced travel.
- Other organisations can use the room and technical equipment.

Users

- Patients requiring medical tests.
- Patients in need of medical consultations that can be carried out as a video call instead of a visit to a health centre.

"I asked what I was supposed to ask and had corrected what was supposed to be corrected. I have complete confidence that it works and then I avoided having to visit the health centre".
– Patient, Denmark.

"To me it doesn't matter if the doctor is there physically or if we communicate via a screen. The most important thing for me is that it's the same health professional who knows me, my illness and my course of treatment".
– Patient, Denmark.

Elaboration

Needs and challenges

People living in rural areas typically have to travel a long way to receive health care and may have to travel a great distance just to have their blood pressure checked. With access to public transport being restricted and poor quality roads, this means that at least parts of the population will not seek medical help unless they need it very urgently. This may result in higher costs for the treatment needed and, of course, less quality of life for the patient.

Solution and function

The establishment of virtual health rooms in rural communities reduces the need to travel and brings health care closer to the patients' homes. Patients can monitor their own health with easy-to-use medical equipment and many kinds of healthcare visits can take place via video communication. Municipal home care can also be relieved to some extent as it won't be necessary to make so many trips to the area compared to an area in which there are no virtual health rooms.

Economy

The cost of the solution depends on the type of equipment you want to use in the room. An approximate price for the pilot installation in Slussfors is SEK 200,000. A similar (and more recent) solution in Denmark cost DKK 190,000.

Virtual health rooms have the potential to reduce travel (thereby significantly reducing travel costs and lost working hours) by providing the option to take tests locally instead of visiting a health centre that might be a long way away, especially when it comes to rural areas. A large number of healthcare visits to a nurse or doctor can also be conducted via video consultation instead of via an actual physical meeting.

Since a virtual health room makes health care more accessible, it also means that people can benefit from receiving medical assistance earlier than they would have done if they had had to travel a long way to a hospital or health centre. This means that treatment can start earlier and at a lower cost than would otherwise have been possible.

Process

The establishment of telemedicine solutions in rural areas needs to be supported by the people living in the area, otherwise it will not be used. Thus, it is important to involve the local community in the early stage of the process.

There will, of course, also need to be good cross-sectoral cooperation between all organisations involved in the process. Healthcare professionals may need to get used to seeing some of their patients via video links.

Organisation and politics

Healthcare providers, from both the region and the municipalities, must agree and work together on the implementation.

Follow-up/monitoring

Some evaluations of the virtual health rooms have been performed but further evaluations need to be performed. An evaluation framework has been drafted and will be used in future studies.

Communication

Scheduled healthcare visits to a virtual health room are conducted in the same way as if the patient was visiting a hospital or health centre. The patient receives a letter offering them an appointment.

More about effects

The solution changes the way we think about meetings between patients and healthcare professionals. It optimises the patients' time without changing the professional's workflow, professionalism and safety. It greatly impacts the users' lives, because it frees up a lot of time.

Learnings and tips

The technical equipment in the room should be chosen with care and must be very intuitive to use, even for a novice. However, some form of introduction might be needed for handling medical devices. In the best case scenario a patient visiting a virtual health room doesn't need to know anything in advance.

Video communication requires high-quality network access.

Further information

Information about the solution implemented in Västerbotten, Sweden:

- [Movie about the health room in Slussfors »](#) (in swedish with english subtitles)

Information about the solution implemented in the Northern Region of Denmark:

- [Movie about the health room in Region Nordjylland »](#) (in danish)
- [Videoambulatorier – en del af hverdagen og klinisk praksis](#) (PDF)

Context

Virtual health rooms are suitable for rural areas in which the nearest health centre or hospital is a long way away. However, health rooms could also be established in more urban areas as a way of relieving primary care or even in the casualty department at a hospital. By empowering patients to monitor their own health, more time is freed up for patients who really need a physical appointment.

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Service provider

There are a number of different service providers that can offer the service needed in virtual health rooms, for example, CheckUp, Nordic Health Innovation and others.