



Danish Experience of Using Technology in the Elderly and Rehabilitation Care

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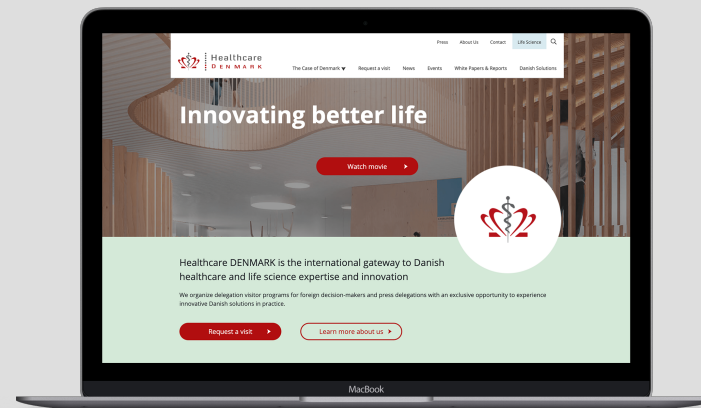


Healthcare DENMARK is a public-private partnership



What we do

- Programs for delegations visiting Denmark
- Virtual delegation visits
- Danish delegation visits to other countries
- Participate in conferences
- Communication and press activities
- Publication of white papers and information material



Her Royal Highness The Crown Princess of Denmark is patron for Healthcare DENMARK



*In Denmark, our focus on putting the **patient first** – combined with constant efforts to improve efficiency and quality – has resulted in a wide array of innovative healthcare solutions.*

I sincerely believe Danish technologies, products and expertise can have a positive impact on global health.



Agenda

Healthcare DENMARK

Framework:

- Danish healthcare
- Introduction to elderly care in Denmark
- Home care, nursing homes and rehabilitation

Use of Technology

- Danish Experience of Using Technology in the Elderly and Rehabilitation Care
- Examples

The Future

- The future of elderly care in Denmark



The Danish healthcare system

Basic features



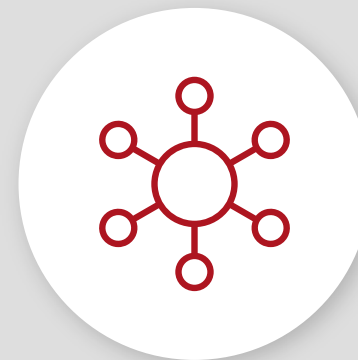
Universal
coverage



Free & equal
access



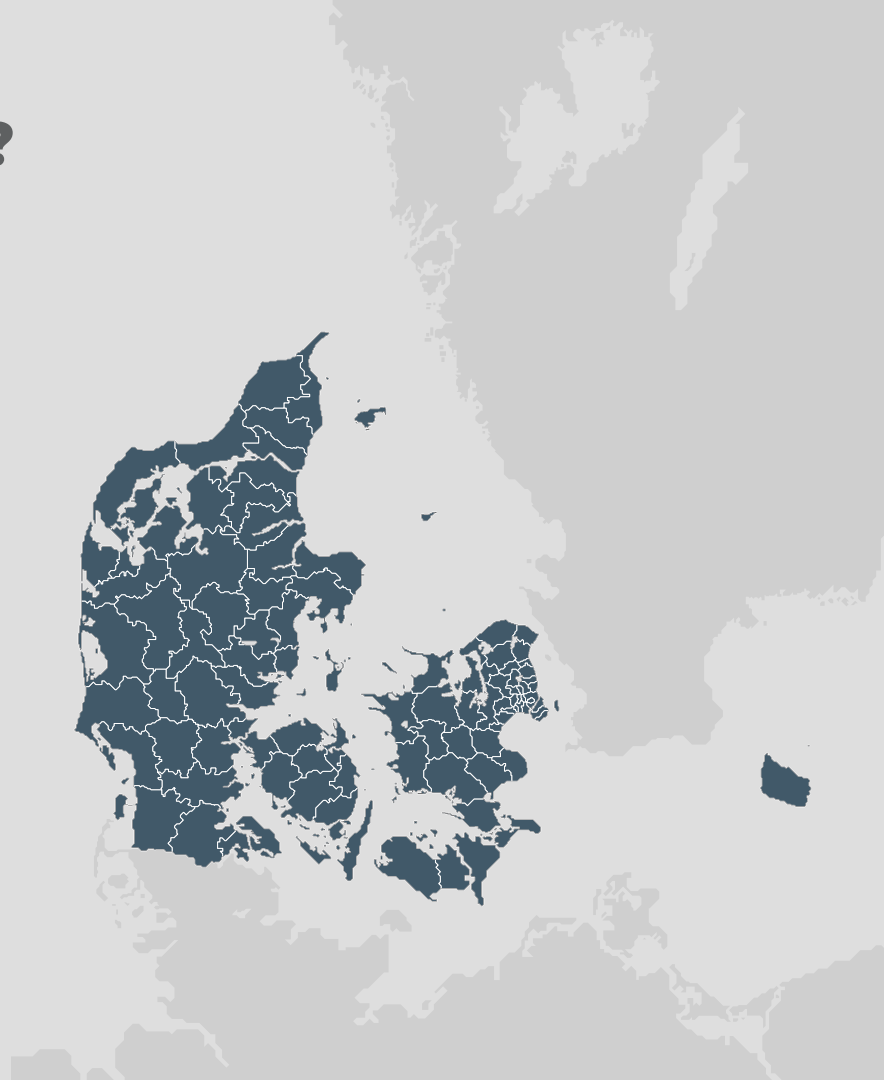
Financed by
general taxes



A high degree of
decentralization

Who is responsible for what?

- **State**
- **Regions**
- **Municipalities**
 - Home care
 - Rehabilitation services outside hospitals
 - Treatment of drug and alcohol abuse
 - Prevention and health promotion
 - District nurses
 - Children's dental services



Introduction to elderly care in Denmark

- The Danish approach to elderly care – a dignified elderly care
- Focus on meeting the challenge of an increasing number of elderly people
- Elderly citizens are empowered to stay in their own home for as long as possible – also by using technology
- Municipalities are responsible for the services to support elderly citizens
- Preventive home visits focus on early detection to avoid hospitalization



Local services close to the citizens

- 98 municipalities are responsible for the elderly care and rehabilitation
- The Social Service Act constitutes the legal framework – the municipalities decide the specific methods and service levels
- The local methods and service levels are established in local quality standards
- It is locally decided which and how technology in Elderly and Rehabilitation care are available and implemented
- The municipalities are very professional in using technology to support rehabilitation and quality of life – when it makes sense to the individual



Home care services

Target group:

- People who no longer have the physical or mental skills to manage everyday life on their own (because of a disability, illness or aging).

Three types of home care:

- Practical assistance (cleaning, shopping, laundering etc.)
- Personal assistance (bathing, shaving, getting in or out of bed etc.)
- Food service – "Meals on Wheels"



Nursing homes

- Out of 935 Danish nursing homes, 85% are run by the municipalities
- Over 40,000 Danes live in nursing homes
- On average, residents are 84 years old when they move into a nursing home
- About 26% of the residents are more than 90 years old



Nursing homes of the future

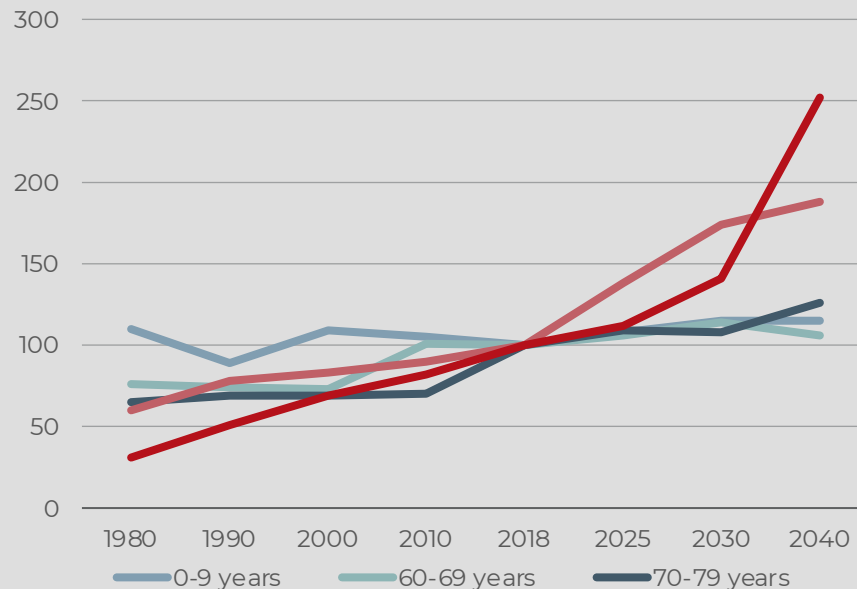
- Nursing homes are designed as real homes to give the residents a sense of living in their own home
- Focus on improving residents' quality of life and overall well-being
- Implementation of assisted living technologies support both residents and caregivers



The challenges we are facing

The number of people over the age of 65 will continue to rise

- From 2018 until 2040, the number of citizens over the age of 80 is expected to increase by almost 90 %
- By 2030, the number of citizens over the age of 90 is expected to have increased by 40 % compared to 2018.



Our Answer

Assisted living and rehabilitation

- Denmark is the leading country in Europe in the use of innovative assisted living solutions both in the citizen's own home and in nursing homes
- Assisted living solutions include both innovative technology and IT solutions to support elderly citizens and their caregivers
- Specific solutions within assisted living include:
 - Lifts
 - Alarm systems
 - Voice controlled devices
 - Robotic vacuum cleaners



Rehabilitation

What is rehabilitation?

- Help to self-help

Why rehabilitation?

- One of the core values in the Danish elderly care: Influence over one's own life
- Demographic challenges

Organization

- Rehabilitation interventions are coordinated in close collaboration between the hospital and the municipality
- Rehabilitation interventions are person-centered and adapted to the individual citizen



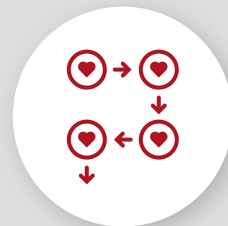
The Danish approach to rehabilitation

FROM

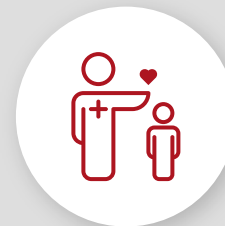
Passive care



Isolated Intervention(s)



Societal Responsibility



TO

Active involvement

Coherent Interventions

Personal Responsibility

Rehabilitation – and Technologies

There are some technological solutions within rehabilitation

Some municipalities uses Digirehab, which is a:

- Welfare technology which makes it possible to have targeted personal everyday training in your own home .
- Often the career is there – in your own home - during the training.
- The technology makes it possible to tailor the solution to individual needs and continuously adjust the effort.
- This improves quality of life

The municipalities are responsible to develop welfare technology

- The municipalities are ambitious in their development of the area
- Also keeping in mind that the individual must feel it is a help
- It cannot replace human contact but it can help.
- Using the technology wisely
- Both the elderly and staff wants is.
- User-driven innovation



Video

- Innovative Danish Living Labs
- <https://www.healthcaredenmark.dk/toolbox/videos/>

INNOVATIVE SOLUTIONS SOME EXAMPLES

Continence care for elderly citizens

Built-in sensors collect data in real-time, and caregivers get the data via an app

Results

- Quality of life is improved
- Fewer diaper leaks and fewer unnecessary diaper changes
- Infection risk is reduced



Innovative solutions

Sensor-based technology motivates elderly citizens

The program includes an app and a motion sensor to support home training

Results

- Elderly citizens experience an increase in self-empowerment, physical activity, and functional levels in daily life
- Virtual rehabilitation reduces the need for home visits



Digital support for relatives frees up staff resources

- Digital platform enables relatives of elderly citizens to check on the health and well-being of their family members
- The portal is accessible via a cell phone, tablet or desktop computer
- The solution frees up time for homecare staff as they get fewer “routine” phone calls from relatives



Status om welfare Technology

- Some municipalities have not been able to test as many welfare technologies during Covid-19.
- Some municipalities did not experience that Covid-19 affected their work with welfare technology.
- The municipalities did experience more virtual meeting with in example GP's and hospitals – and it has been a positive experience.
- Some municipalities help elderly with screens so they could stay in contact with the municipality, their family but also for activities which de normally participated in – like to be with other elderly people. All this also to prevent loneliness.
- A analysis done by the municipality association show that technologies which has contributed to largest gains was in 2020
 - Training solutions
 - Digital visits on screen

But it is hard to implement - and it takes time. For now there is more than 1450 welfare technology efforts in 88 (out of 98) municipalities which they have shared with each on a webpage.

The future of elderly care in Denmark

- Innovative technologies and artificial intelligence are priorities in future efforts to improve quality of life and care for elderly citizens
- In 2021, the Danish government has announced a reform focusing on healthcare and elderly care close to home to decrease retail management and increase proximity and professionalism





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Opening: 27. oktober 2021**

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D E N M A R K



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