Denmark – a dementia friendly society

WHITE PAPER
About this white paper

This white paper presents the Danish approach to dementia care based on the National Action Plan on Dementia 2025 and includes a broad range of solutions that contribute to improve quality of life for people with dementia. It is part of a series of white papers that show how Danish solutions can contribute to increase efficiency in healthcare while empowering patients and staff.

Danish healthcare innovation is not exclusive for the Danes: many years of global presence show that our healthcare products and solutions create value internationally. Danish ideas and products are used every day in hospitals, medical clinics, ambulances, and nursing homes across the world.

We hope to inspire you and would like to invite you to Denmark to learn more about the Danish healthcare system.

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Healthcare DENMARK’s partners:

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The number of people with dementia is dramatically increasing world-wide and this challenges the capacity and budgets of healthcare services. People with dementia are facing a life strained by the progressive symptoms of dementia, and their increasing need for support and care also has extensive impact on the lives of relatives and family caregivers. Therefore, there is a great need to develop and apply innovative, flexible and efficient solutions to support and care for people with dementia as well as those who take care of them.

Denmark holds a leading position in providing high quality treatment and care within the field of dementia. Our position is based on a strong ambition to maintain dignity, safety and quality of life for people with dementia and their families. This position is further reinforced by the Danish national dementia strategy, the National Action Plan on Dementia 2025, where a number of initiatives are launched to strengthen Denmark as a dementia friendly society.

This white paper demonstrates a number of unique Danish initiatives and solutions to many of the challenges in relation to dementia:

- Early detection and high quality in diagnostic evaluation and treatment is reinforced by a close collaboration between professionals in general practices, hospitals and municipalities. As part of the action plan, the Danish regions will reduce the number of hospital memory clinics in order to promote multi-disciplinary specialization and to optimize diagnostic procedures and treatment. Furthermore, hospitals in Denmark are taking new initiatives to become dementia friendly hospitals. All Danish municipalities are also encouraged to become dementia friendly and to draw up local dementia strategies.

- High quality of care and rehabilitation are essential to the effort of maintaining quality of life, dignity and safety for people with dementia. They need individualized support and empowering initiatives to be as resourceful and live as independently as possible. Many methods and initiatives in Denmark are based on the principles of person-centred care. New innovative technologies have great potential to support this person-centred approach and to provide safety, independence and quality of life for people with dementia, for instance sensory technology, digital care planning, GPS trackers and circadian lighting in nursing homes. Technology based solutions are also successfully applied to relatives and family carers of people with dementia, giving them better conditions when providing care and support. For instance, a technology based communication platform, a communication app and an app to provide contact to volunteer “Dementia Friends” in the local community.

- A basic part of being a dementia friendly society is to provide dementia friendly communities and housing; physical settings, where the design meets the needs of people with dementia. Currently, dementia villages are being established several places in Denmark, and the future “City for Life”, in Odense Municipality, aims to establish a diverse and safe city district for both citizens with and without dementia.

To make the National Action Plan on Dementia 2025 a success, it is necessary to reinforce research and to increase knowledge and skills of professionals working with people with dementia. A number of innovative solutions are launched to meet these needs, for instance a dementia “flying squad” and programmes of interactive E-learning.

This white paper illustrates how Denmark is moving forward with many new solutions and a wide range of innovative paths to a dementia friendly society. We hope that you will find it inspiring.
People with dementia must have equal opportunities to enjoy life, take part in meaningful activities and to be treated with dignity and feel safe. Everyone involved in health and eldercare must make an effort to promote this.

Thyra Frank
Minister for Senior Citizens

Denmark has come a long way in improving care and support for people with dementia. Every day, highly qualified professionals and volunteers make a great effort to give people with dementia and their relatives a life where they find safety and dignity. The National Action Plan on Dementia 2025 paves the way for Denmark to provide the best possible treatment and care for people with dementia.

Thyra Frank, Minister for Senior Citizens

Denmark strives to have the best elderly and healthcare system in the world. In order to obtain and remain in this leading position, and to respond to the challenge of an increasing number of elderly people and people with dementia, Denmark has set a clear direction towards 2025 by launching the National Action Plan on Dementia. This action plan is based on a set of core values, including respect for individual preferences, needs and resources. Moreover, safety and dignity are essential in the treatment and care of people with dementia, both when living at home and in a care home. All the initiatives and efforts in the action plan are based on these core values and are set out to provide high quality treatment, care and support for people with dementia and their relatives. Activities involving people with dementia must be meaningful and provide positive experiences, underlining that quality of life can be high and life can be enjoyable, despite the devastating impact of a dementia disease.

The overall ambition of the National Action Plan for Dementia is to improve the level of standards within five main areas of focus, including early detection of dementia, quality of care and rehabilitation, support for relatives, dementia friendly communities, and improved level of competence among professionals. By improving standards within these five areas, Denmark is on its way to strengthen its position as a dementia friendly country, where people with dementia and their relatives live a safe life, and are met with dignity and respect for individual needs and preferences.

Thyra Frank

“Denmark is on its way to strengthen its position as a dementia friendly country, where people with dementia and their relatives live a safe life, and are met with dignity and respect for individual needs and preferences.”
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In Denmark, we provide a unique level of treatment and care for people with dementia. Highly qualified healthcare professionals make a great effort to provide services that maintain dignity, safety and quality of life for people with dementia and their families. By implementing a national dementia strategy, the National Action Plan on Dementia 2025, Denmark is heading towards an even more ambitious and durable effort on dementia.

Like the rest of the world, Denmark is facing the demographic challenge of a fast growing aging population. With age as the strongest risk factor for dementia, the number of people with dementia will rise accordingly.

The National Action Plan on Dementia 2025 has been set out as an ambitious long-term plan to ensure that Denmark meets the challenges related to the increasing number of people with dementia.

The task that lies ahead is to ensure that all Danish regions and municipalities reach a high level of joint capacity to meet the needs of people with dementia and their family caregivers.

In line with other countries, Denmark also struggles with the challenges of missed or delayed diagnosing of dementia. Too many people do not receive the diagnostic examination, treatment, care and support, which could enhance their quality of life and well-being.

Denmark –a dementia friendly society

The Danish healthcare system operates across three political and administrative levels: the state, the regions and the municipalities. The state holds the overall regulatory and supervisory functions in health and eldercare. The five regions are primarily responsible for hospitals and general practitioners. The 98 municipalities are responsible for a number of primary healthcare services as well as eldercare and care for people with dementia.
As a consequence, early detection and accurate diagnosis of dementia has high priority in Danish municipalities and regions, and it is an essential part of the National Action Plan on Dementia.

Also as part of the action plan, all Danish municipalities are encouraged to become dementia friendly and to draw up a local dementia strategy for the benefit of all citizens, professionals and local policy makers. Such local strategies can outline the local efforts and initiatives on dementia, including approaches to treatment and care, and the development of dementia friendly local environments and housing facilities, and it is recommended that people with dementia and their caregivers are directly involved in the development of such local strategies. In line with this, all the initiatives in the national action plan are based on the precondition of acknowledging and including people with dementia and their caregivers.

This white paper presents innovative Danish solutions and services that provide high quality treatment, care and activity for people with dementia. They are all related to the core values and initiatives of the National Action Plan on Dementia 2025, including a strong ambition to give people with dementia and their family caregivers the highest possible level of safety, quality of life and well-being. These innovative solutions and services are crucial in order to achieve the goals outlined in the National Action Plan on Dementia 2025.
In order to initiate the right treatment and a high quality of care, the National Action Plan on Dementia 2025 emphasizes the importance of early detection and correct diagnosis of dementia. This initiative is supported by a strong partnership between Danish regions and municipalities.

In its early stages, dementia can be difficult to spot and the early symptoms of dementia are often mistaken to be symptoms of other diseases or a normal part of the aging process. Early and correct diagnostics is crucial in order to offer the correct treatment, counselling, support and care for people with dementia and their family. Early diagnosis of dementia also gives a better chance to postpone the progression of a dementia disease and the loss of functional ability.

“Early and correct diagnostics is crucial in order to offer the correct treatment, counselling, support and care for people with dementia and their family.”

The detection of dementia at an early stage is supported by a comprehensive Danish primary care sector, where general practitioners play an important role. The general practitioner often conducts the basic diagnostic evaluation, and the patient is referred to further examination at a hospital memory clinic if more comprehensive diagnostic evaluation is needed and in cases of a more complex or rare type of dementia. The memory clinics have multi-disciplinary teams of consultant neurologists, psychiatrists, geriatrics, neuropsychologists and nurses.

Today, there are 30 memory clinics in Denmark. As part of the National Action Plan for Dementia 2025, the regions will reduce this number by half in order to promote early detection and high quality in diagnostic evaluation and treatment.

At the memory clinic, a multi-disciplinary team of consultant neurologists, psychiatrists, geriatrics, neuropsychologists and nurses examines the patient with symptoms of dementia. A cognitive screening test can help them to spot early symptoms of dementia.
After a brain scan, the specialists will go through the images and results together with the patient. Cooperation is the key

The main framework for cooperation within the field of dementia in Denmark is based on healthcare agreements between each region and the municipalities in the region, disease management programmes, and the planning of the medical specialties by the Danish Health Authority.

A regional healthcare agreement promotes a continued and coordinated care pathway between general practice, hospitals and municipalities. People with dementia are either included as a target group in a healthcare agreement, or there is an affiliation agreement on dementia in the region.

Disease management programmes are standardized descriptions of interdisciplinary, cross-sectional and evidence-based healthcare. They outline cooperation and coordination between all professional stakeholder involved in a specific patient group, for instance people with dementia.

Furthermore, extensive digitization and use of e-health solutions in the Danish healthcare system contribute to information sharing and close contact between the healthcare system and the citizens. It is expected that the National Action Plan on Dementia 2025 will motivate innovation of additional technology based solutions to support early detection of dementia.
Hospitals in Denmark take new initiatives to make hospitals dementia friendly. At OUH Svendborg Hospital in the Region of Southern Denmark, they aim to become dementia friendly by increasing knowledge about dementia and skills of dementia care among healthcare professionals.

Since 2015, the Geriatric Department of Odense University Hospital (OUH) in Svendborg has been working to become a dementia friendly department and to kick-start the process of transforming the entire OUH Svendborg Hospital into a dementia friendly hospital. The results and know-how from this process will contribute to the establishment of future dementia friendly hospitals throughout Denmark.

“At a modern hospital, we have an obligation to offer high-quality services in diagnosis, treatment and care for patients with dementia, regardless of which hospital department they are admitted to. This requires both a surplus of empathy and expertise from the hospital staff and appropriate physical surroundings and design to improve the quality of healthcare and quality of life for patients and their families.” – PederJest, Executive Director and CMO, Odense University Hospital.

“...the patients with dementia are literally met by a geriatric nurse at the doorway in the Shared Emergency Department”

At OUH Svendborg Hospital, the process of creating a dementia friendly hospital does not only include healthcare procedures, an essential part is also the skills of healthcare staff when they provide treatment and care and communicate with patients. For example, the service “Geriatrics at the doorway” has been established. With this service, the patients with dementia are literally met by a geriatric nurse at the doorway in the Shared Emergency Department.

The geriatric nurse creates a sense of tranquility and security for the patient throughout the admission process, and the nurse is responsible for contacting the patient’s relatives and the municipal home care.

This not only gives the geriatric nurse an overview of the patient’s acute status, it also gives an insight into the life story and habits of the patient. Once the patient’s treatment at the Shared Emergency Department is completed, the geriatric nurse accompanies the patient to the geriatric ward to ensure a gentle and safe transition.

Patients admitted to the geriatric ward receive individualized treatment. Within 48 hours, patients and their relatives are offered a consultation to discuss the outcome of the current hospitalization and the transition from the hospital to the patients’ own home.
“At a modern hospital, we have an obligation to offer high-quality services in diagnosis, treatment and care for patients with dementia, regardless of which hospital department they are admitted to.”

– Peder Jøst, Executive Director and CMD, Odense University Hospital.”
A main objective of the Danish elder and healthcare policy is to enable people to be as resourceful and independent as possible. To provide these opportunities to people with dementia, they are offered individualized support and empowering initiatives.

From a Danish point of view, it is essential that care and rehabilitation is provided for people with dementia in a way that enables them to maintain independence and the highest possible level of functional ability, as long as possible. In line with this, care and support must be adapted to individual needs and preferences at all stages of the disease. For a person with dementia, the need for help and support can range from counselling, rehabilitation and psychosocial activities at an early stage, to more comprehensive help and support and adapted activities as the disease progresses, and palliative care at the final stage of life.

If possible, initiatives and activities should be evidence based or at least based on best practice guidelines and most recent knowledge. Some of the successful methods and activities that are provided are person centred care, physical exercise, music therapy and sensory stimulation. New technologies also have great potential to support independence and safety of people with dementia.

It is crucial that support and care is delivered as a coherent and coordinated effort.
Innovative technology is used more and more often in nursing homes in Denmark to improve the quality of care for residents.

At the nursing home Skovhuset in Hillerød Municipality, the Capital Region of Denmark, all residents have a so-called intelligent floor installed in their apartments. The sensors underneath the floor register movements, which then enables the staff to follow the resident’s activities in the apartment.

“This gives us an opportunity to adapt care and activities, because we are able to follow the residents’ routines more closely. It is particularly useful when it comes to residents with dementia. We can for instance monitor if they have gone out of bed early, and then we can adapt our care routine to this.” – Charlotte Kock Petersen, Manager at Skovhuset nursing home. The staff also receives an alert if a resident falls in the apartment.

Obviously, this technology interferes with the residents’ privacy. Before the floor sensors are activated, it is important to get informed consent from the residents. “Of course, the residents have to feel comfortable with this kind of monitoring. About 90-95 pct. of the residents agree to have the sensors turned on. Some of them do not like it at first, but some change their mind when they for instance experience a neighbour who falls at night and gets immediate help from the care staff – because of the floor sensors.” – Charlotte Kock Petersen, Manager at Skovhuset nursing home.

Intelligent floor improves safety for residents in nursing homes

The concept of person-centred treatment and care is an evidence-based and internationally highly estimated methodology. It is based on a holistic social-psychological approach, which includes:

1) Valuing people with dementia and those who care for them.
2) Treating people as individuals.
3) Looking at the world from the perspective of the person with dementia.
4) A positive social environment in which the person living with dementia can experience relative wellbeing.
Person-centred care supported by digital care planning

The Meta Mary home in the Region of Southern Denmark is a specialised dementia nursing home, where person-centred care is supported by digital care planning.

In the Meta Mary home the support and care provided by the staff is based on a person-centred approach as a basic part of the nursing home’s set of values. Through this approach, the residents’ individual needs and preferences have high priority, and they are supported to influence their own life and to have positive experiences every day.

A digital care planning tool has been implemented in each resident’s apartment to enable the staff to pursue these values. The digital care plan is presented on a wall-mounted tablet and this gives staff an overview of all activities during the day, including information on how residents would like these activities to be carried out.

The tool also includes the residents’ life stories, which are based on their personal photos, and stories about their childhood, families, life events and hobbies. These photos are displayed on the tablet and enable staff to adapt care to the residents’ individual needs and preferences. The life story information also creates a basis for dialogue and closer relationships between staff and residents. The tool is also used by residents and their relatives as a joint calendar, photo album, contact book etc.

“Our vision is to use technology as a tool to support care and to give residents the right amount of stimulation and activity, by adapting care to individual needs and ability.”

“Our vision is to use technology as a tool to support care and to give residents the right amount of stimulation and activity, by adapting care to individual needs and ability.” – Karina Lange, Manager, the Meta Mary home.
Physical exercise can reduce symptoms of Alzheimer’s disease

Moderate to high-intensity group-based physical exercise have positive effects on both physical function and psychological well-being in people with mild Alzheimer’s disease.

As the first major study in the world, the Danish research project ADEX, “Preserving quality of life, physical health and functional ability in Alzheimer’s disease: The effect of physical exercise”, has measured the effects of moderate to high-intensity exercise on patients with early stage Alzheimer’s disease.

“The study shows that it is important to offer tailor-made physical activity to people with dementia. Group-based physical exercise seems to have a positive effect on both physical function and psychological well-being.” Steen Hasselbalch, Clinical Professor and leader of the research project, Danish Dementia Research Centre.

In Esbjerg Municipality, the Region of Southern Denmark, group-based physical exercise is offered to people with early-stage dementia based on the principles from the ADEX project. The training consists of moderate to high-intensity exercise including both cardio and strength training.

“It is perhaps not surprising that physical exercise leads to significant effects on physical functions, but the degree of improvement we see in general ability is surprising. We often see that the participants with dementia become far more active than usual one to two days after training. Relatives report that the participants’ mood improves and that they become better at coping with daily activities such as walking, baking or making coffee.” – Irene Ravn Rossavik, Manager of Esbjerg Municipality Health Centres.

The ADEX study included 200 participants from all regions of Denmark. They were randomly allocated to either a training group or a control group. For a period of 4 months, participants in the training group performed cardio training one hour three times per week. Before and after the training period, the occurrence of neuropsychiatric symptoms such as irritability, depression, and apathy were measured in both groups. The results showed significant differences between the two groups. During the training period, neuropsychiatric symptoms increased in the control group, but decreased in the training group. This suggests that the training programme had a preventive effect and enhanced patients’ well-being.
Training at such an intense level is particularly demanding for people with dementia. A physiotherapist is responsible for the training sessions and can support the participants immediately when needed. “By using a professional approach to this training programme, it has been easy for the municipality of Esbjerg to apply this activity to people with dementia”. – Irene Ravn Rossavik, Manager of Esbjerg Municipality Health Centres.

Dancing promotes physical exercise and reminiscence

Dancing is another kind of physical activity that can have a positive effect on both physical function and psychological well-being for people with dementia. In 2008, a Danish nurse, Susanne Rishøj, developed the concept of “reminiscence dancing” for people with advanced dementia living in nursing homes. During their childhood years, many elderly people have attended dancing schools and they have maintained their dance traditions throughout their lives. In reminiscence dance, the aim is not to learn to dance, but to explore reminiscence and recall memories related to music and dancing. Reminiscence dance strengthens the physical condition of participants and also creates joy and a sense of cohesion in a safe and positive atmosphere together with staff and relatives.

Reminiscence dancing includes eight one-hour dance sessions and a final end-of-season ball. The programme includes education on dementia and communication for all stakeholders involved e.g. care staff, family caregivers and volunteers.
Collaboration between the public sector and civil society organisations creates value for people with dementia in Denmark. In the municipality of Kolding, nursing homes collaborate with “Cycling without age” to promote social relations and bring joy to people with dementia.

In the municipality of Kolding, the Region of Southern Denmark, 12 nursing homes offer trishaw rides to residents with dementia. Staff and volunteer “bike-pilots” ride the trishaw, and the combination of social engagement, bike-riding and fresh air contributes to well-being and quality of life.

Many of the residents in the nursing homes no longer have the physical capacity to take a bike ride down their childhood street, down to the harbour or just around the neighbourhood. A ride with the trishaw gives a great moment of joy, and the pilot and passengers build a social relationship.

“Memories suddenly emerge when we are out on a bike ride. It is both fun and cozy to listen to all these stories and of course incredibly meaningful because the residents get engaged and have fresh air. Although the residents may not specifically remember the rides, I can clearly feel that they enjoy it.” – Benjamin Madsen, Pilot in Kolding.

“During trishaw rides, the residents enjoy their freedom and some of them recall memories and share their stories, which give staff a better opportunity to understand and connect with the residents. The positive outcome of the rides can be transferred into the daily care and treatment of people with dementia.”

During trishaw rides, the residents enjoy freedom, mobility and outdoor activity. Staff has seen how such experiences suddenly have made residents blossom. Some residents recall memories and share their stories with each other, the pilots, staff and relatives. As one staff member expresses: “It is fun and liberating for them to get out on a bike ride, and even residents, who do normally not say much, suddenly have a story to tell..”

These experiences also give staff a better opportunity to understand and connect with the residents, and this can be transferred into the daily care and treatment of people with dementia.

• Cycling without age is represented in 70 Danish municipalities (out of 98).
• The organization has 600 trishaws and more than 4,000 volunteer pilots in Denmark.
• The movement has spread to 38 countries worldwide.
Integrating sensory stimulation in Danish dementia care

Sensory stimulation is increasingly used in the care for people with dementia in Denmark. By using sensory stimulation, it is possible to activate the senses and thereby evoke positive feelings and memories, which can promote social interaction and well-being for people with dementia.

Sensory rooms are part of the facilities in a number of Danish nursing homes. These sensory rooms are specially designed environments for people with dementia, where senses can be safely explored and stimulated. A sensory room combines stimulation by light, movement, music and tactile objects, and can both be used to calm and stimulate, depending on individual needs.

At Sjælsø Care Centre in Rudersdal Municipality, the Capital Region of Denmark, sensory stimulation is used in the day care facilities of people with dementia living at home. Here, staff has seen a positive effect on well-being when using a modern and full-automated rocking chair, which stimulates different senses.

“An elderly woman with dementia attends the day care centre. She is restless and feels most comfortable if she has physical contact constantly. After one hour in the rocking chair, she is much calmer and she is able to participate in social activities.” — Bodil Sørensen, Dementia Coordinator, Sjælsø Care Centre.
Music as therapy and sensory stimulation for people with dementia

Music therapy is proven to have significant effects on people with dementia. It can reduce depression, agitation and anxiety, and it can be used in addition to medical treatment of neuropsychiatric symptoms, in some cases, it can even substitute medical treatment. Therefore, music therapy is more and more often applied to people with dementia living in Danish nursing homes.

Music affects the human mind and body and it can activate memories and emotions. Music and music therapy can be used as part of the daily routines in nursing homes and it can be applied as part of person-centred care, e.g. supporting the sense of identity of people with dementia and promoting their attention towards activities. Using music and music therapy can also help the staff to communicate comfort and safety to people with dementia when caring for them.

"Music brings a sense of identity and belonging. It is essential to human beings to know who you are and where you belong. Music can compensate for some of the cognitive deficits caused by dementia."

Music is used to stimulate people with dementia in a variety of ways. At Øster Elkjær nursing home in the municipality of Fredericia, the Region of Southern Denmark, an outdoor musical garden has been established. The garden is equipped with musical instruments by Percussion Play for the residents to play on. The instruments are tuned to a five tone pentatonic scale, making it easy for everyone to generate pleasant tunes, and the musical garden contributes to cosy interactions between residents, relatives and staff. Even residents with severe dementia can be captured by the music.

"The sight of residents with dementia who played on the instruments while both smiling and crying was so striking that I knew that musical instruments had to be installed in the gardens of all three care centres that I am manager of." – Ea Seeger Hanmann, Nursing home Director, Municipality of Fredericia.

Musical skills have been proven to be preserved longer than other cognitive skills in people with dementia, probably because musical skills are based on implicit/procedural memory and therefore do not depend on the hippocampus, which gradually deteriorates in people with dementia due to Alzheimer’s disease. This means that in spite of having severe dementia, some people can remember long lyrics, sing, whistle or dance.
In Denmark, we have extensive experience with the many benefits of involving and supporting caregivers of people with dementia.

"In Denmark, we have extensive experience with the many benefits of involving and supporting caregivers of people with dementia."

Support and guidance for the family carers of people with dementia

When a person lives with dementia, the disease has a large impact on the lives of family and other close relatives. As a dementia disease progresses, a person with dementia will need more assistance and support in daily life and this puts a severe strain on family caregivers. Often they will need support and guidance to be able to cope with the situation as a caregiver.

Many family members provide a tremendous effort to support a family member with dementia, often both in terms of emotional support, practical help and personal care. The emotional relationship between a family carer and the person with dementia often suffers from this burden and the change of balance in the interpersonal relationship. Moreover, the carers’ social relationship with other family members, friends etc. is also often restrained by the caregiver burden. Their own health and well-being is also often neglected.

All these strains make life as a caregiver even harder to cope with. To prevent such a negative influence on family caregivers they should be supported right from the start, when dementia is diagnosed. They must be offered information and guidance on the situation as family caregiver and be relieved from caregiver tasks when needed. This must be done in order to make caregivers able to cope with the situation as a caregiver and to enable them to continue their support of the person with dementia.

Supporting and educating family members of people with dementia creates value for both the family members as well as health authorities. Education can improve communication and relationships between family caregivers and people with dementia, and it can also improve the involvement of health-care professionals, because their assistance can be made timely and based on individual needs within the family living with dementia.

The support for family caregivers can include initiatives such as group programmes of education and support, which gives family caregivers more knowledge and a better understanding of dementia. It also gives them the opportunity to share thoughts and feelings with other people in a similar situation. Support can also be provided in a more practical and individualized manner, for instance by respite care, where care is provided for the person with dementia for a period of time, in order to relieve the family carer. This gives the family carer an opportunity to care for him or herself and to engage in activities that they are normally not able to when providing care for the person with dementia.

Innovative technology based solutions have also been developed in relation to these caregiver needs. These solutions aim to promote communication, co-ordination and support between the person with dementia, family and professional caregivers and volunteers in a variety of ways.
Supporting contact between people with dementia and their relatives through technology

To maintain a close relationship between a person with dementia living in a nursing home and their relatives, it is of major importance that relatives have information of the daily activities and condition of the person with dementia. Technology based communication platforms have proven to be effective tools to exchange information between people with dementia, their relatives and care staff.

At Grønnegården nursing home in Aabenraa Municipality, in the Region of Southern Denmark, residents, relatives and staff use a new tablet based platform to communicate with each other through text messages, video and photos. They can also coordinate activities through joint calendars. The platform enables sharing of information about activities and daily life of the resident and it is thereby supporting the relationship between relatives and the person with dementia.

“This solution makes it easier for residents and their relatives to stay in touch and maintain social relations, even despite long distances. Sharing photos and being connected to relatives create joy for the residents and improve their quality of life.” – Helle Hansen, Head of nursing homes in the municipality of Aabenraa.

A tablet based platform makes it easy for residents and relatives to share information about activities and daily life in the nursing home through text messages, video and photos.
Leon’s caregiver used the app to find a matching Dementia Friend, who meets with him on a regular basis.

Volunteers support people with dementia and caregivers through tailor-made app

Taking care of a family member with dementia poses many challenges for family caregivers and other relatives, and it is important to provide easily accessible and flexible solutions to respite care. The Danish Alzheimer Association has developed a concept of technology driven respite care, based on volunteers. It works through an app where family caregivers can search for volunteer “Dementia Friends” in the local community who would like to offer their help and support.

“We are really excited about involving volunteers. I often feel guilty that I can’t be there for Leon all the time, however, it is good for both Leon and I that he can do his own thing and meet with other people.” – Helle Houlby, caregiver who used the app to find a matching Dementia Friend for Leon.

The web-based app visualizes local and specific needs for respite care and makes it easy to match the families with the Dementia Friends volunteers. In addition, the app includes education programmes to qualify the volunteers for their tasks.
The Relabee app has been designed to meet the needs for coordination and communication between caregivers. It can support and relieve caregivers by gathering all relevant information and communication in relation to a person with dementia and, as a shared platform, it gives all caregivers an overview of the need for support and help.

When a family member lives with dementia, there are many practical tasks that must be supported or solved by family and other relatives. The Relabee app has been designed to ease such support. It enables co-ordination of appointments and sharing of messages with everyone who is involved in caregiving, including professional caregivers.

A relative, Heidi Ruud, uses the app to communicate with her brother and sister about their father’s situation; he is living with dementia.

She describes how the app gives her greater peace of mind through difficult times. The app is of great value to them, because it helps them co-ordinate everyday tasks such as information from consultations with a doctor, coordination of who fetches medicine at the pharmacy etc.

“I used to feel very unsafe when the phone rang, because I knew that it could have something to do with my father. Now, I never worry when my sister or brother call me, because they would use the app to inform me about my father.” – Heidi Ruud, relative.

A relative, Heidi Ruud, describes her experience with the Relabee app.

Communication tools to support and relieve caregivers
Dementia friendly communities and housing

Among other things, a dementia friendly society is characterized by physical settings, where the design meets the needs of people with dementia and their relatives. As a new initiative, so-called dementia villages are currently being established to make Denmark an even more dementia friendly society.

Design and interior of healthcare buildings have proven to have great influence on human well-being and recovery. By rethinking connections between architecture, healthcare and nursing homes, Denmark has succeeded in designing healthcare buildings and nursing homes based on principles of healing architecture.

However, in order to meet the needs of the increasing number of people with dementia, new initiatives are currently taken. This includes the establishment of dementia villages where the physical settings are constructed as a city, which is particularly adapted to needs of people with dementia. The architecture accommodate their specific needs for recognition, orientation, belonging, community sense, and security. It also includes implementation of innovative technology based solutions, focusing on light, sound and colours, which can be of great importance to the safety and well-being of people with dementia and improve their quality of life.

Furthermore, the villages are organized to include people with dementia and their relatives in an environment that contains familiar elements from the residents’ past. These recognizable urban elements, such as a local shop, restaurants, cultural centre etc. are positioned as small houses in the city landscape. These buildings are designed with inspiration from local building traditions, which gives the residents a sense of living an ordinary and undisturbed everyday life.
In the Municipality of Svendborg, a local environment for people with dementia has been established to create a safe and active life for all citizens.

Inspired by the dementia village De Hogeweyk in the Netherlands, a dementia village called “Bryghuset” was opened in the Municipality of Svendborg, the Southern Region of Denmark, in 2016. It has 125 special housing units for people with dementia.

“Driven by highly motivated people, the process of establishing the dementia village in Svendborg has been extremely efficient. It only took two years from the introduction of the original idea to the official opening of a complete dementia village.”
– John Jensen, Director of the Department of Social Services, Healthcare and Employment, Municipality of Svendborg.

The dementia village gives citizens the opportunity to continue living in a manner that resembles their previous lifestyle as much as possible.

“The dementia village gives citizens the opportunity to continue living in a manner that resembles their previous lifestyle as much as possible.”

The dementia village has a “shopping street” where facilities include places like a shop, café, wellness room, Gentlemen’s Room, fitness room and music library. The entire area of the dementia village, including large outdoor areas, is surrounded by either buildings or fences, providing a safe environment for all residents.

Bryghuset – A village for people with dementia
The best outdoor areas for both people with dementia and everyone else

“City for Life” creates urban spaces and intuitive passages between the indoors and outdoors. This inspires people with dementia and everyone else to move around and to have the possibility to participate in meaningful activities.

“City for Life” is going to be established in Odense Municipality in the Region of Southern Denmark. The vision is to establish a city district with room for diversity, where individuals with and without dementia intermingle and can live a good and safe life. The city will include community houses, urban spaces and parks, a nursing home, transitional housing and senior housing, and there will be various facilities such as outdoor training, nature playgrounds, allotments and animal keeping. Sensory gardens, that offer contrasting experiences in colours and other sensory stimulations, will also be created for the benefit of all residents, but especially for the benefit of people with dementia, who will be strongly supported in remaining a part of the normal community.

“The vision is to establish a city district with room for diversity, where individuals with and without dementia intermingle and can live a good and safe life.”

In general, the inclusion of people with dementia in the community will be an essential part of living in this city. The focus of the “City for Life” will not only be to improve the quality of life for people with dementia, but also to use the upcoming evidence of methods and therapies that might contribute to the prevention of dementia and the reduction of symptoms of dementia.

Because of the diagnosis of dementia of some of the future residents in the “City for Life”, their ability to navigate may be affected. “We work with many kinds of intuitive solutions for wayfinding that will guide everyone, including people with dementia, safely around the area. There will be elements in the outdoor areas such as water, plants and different materials for pavement that motivate people to walk in a certain direction or stay inside a certain area.” – Paul Erik Weidemann, CEO of OK-Fonden.
Circadian lighting can improve life for people with dementia

The use of circadian lighting in nursing homes can improve the condition of residents with dementia.

People with dementia often develop circadian rhythm disorders, e.g. insomnia, night wandering and daytime sleep, which have a negative impact on their physical and mental well-being. By using a controlled flow of circadian lighting in nursing homes, residents with dementia can have an improved circadian rhythm, which can have a positive impact on their overall well-being, sleep and quality of life.

When building a new nursing home in 2014, the Municipality of Aarhus in Central Denmark Region decided to implement an automatically controlled lighting concept to support the daily care of residents with dementia. With a soft sunrise, a strong daylight, a warm sunset and a night light without any blue tones, the concept imitates the beneficial effects of the natural light and thus supports the body’s natural circadian rhythm.

The residents do not necessarily explicitly notice the changing colour of the light, but when the amber colour is on, staff has noticed that a nice and warm atmosphere is created, which for instance makes the residents want to stay a little longer for dinner.

The nightlight clearly signals night and bedtime, which can enhance sleep and thereby reduce wandering at night. During daily activities, a slightly blue light is turned on and this can encourage the residents to take part in the activities.

Research projects across the care sector, hospitals and mental health services have contributed to the development of the circadian lighting concept, and clinical trials have shown that circadian lighting can significantly reduce depression and fatigue, and improve the circadian rhythm of stroke patients.
Personalized doors enable residents to find their way home in a nursing home

Personalized doors can improve both safety and well-being of residents in nursing homes. A full-scale picture of a door, which is well-known to a person with dementia, is put on their own front door in the nursing home. This enables the residents to recognize their own door and find their way home.

In nursing homes, the doors often look very similar and this can be very challenging for people with moderate to severe dementia, who often have difficulties navigating and finding their way home. A highly recognizable door provides the residents with dementia with a more vivid cue, and this can help them find their way home.

At the nursing home Ålholmhjemmet in Hillerød Municipality, the Capital Region of Denmark, full-scale pictures of either a personally well-known door, or a door chosen from a catalogue, is put on the residents’ front doors.

“A married couple expressed that it gave them a sense of living in their own home again.” – Kirsten Gosvig, Leader of the nursing home Ålholmhjemmet in Hillerød.

A married couple expressed that it gave them a sense of living in their own home again and the husband seemed more relaxed as he knew that his wife could easily find her way back home.

The personalized doors bring joy to residents’ everyday life and provide a sense of both independence and identity, while also improving safety. Residents also enjoy the colourful environment when they walk around in the nursing home, as it looks more like private homes.
Sensor technology and GPS trackers can both enable people with dementia to move independently and prevent unsafe situations.

In nursing homes, innovative sensor technology can have great impact on both the residents’ safety and their well-being. At the nursing home Christians Have in Solrød Municipality, Region Zealand, a new system has been installed to provide safety for residents with dementia without limiting their freedom, and at the same time, it helps the staff to provide better care.

The system is based on sensor technology. It has individual alarm settings for each resident, and it monitors residents’ individual circadian rhythm and behaviour. The sensors send an alert to the staff in case of falls, wandering, or other unsafe situations.

“It has made our residents feel safer. They have faith in the system and us, and this is of course an advantage for both residents and staff.” – Nathalie Schwartz, Social and Healthcare Assistant, Christians Have nursing home.

GPS trackers provide independence for people with dementia

GPS trackers are often used to provide safety for a person with dementia. Many people living with dementia are still able to cope independently in many situations and perhaps have a high level of performance when it comes to physical exercise.

“Innovating Better Life

: Sensor technology in nursing homes and the use of GPS trackers help people with dementia to live more independently.
They, for instance, enjoy running or going for bike rides, but such activities can be limited by their reduced ability to navigate and find their way back home. In such cases, a GPS tracker provides safety. If the person with dementia gets lost, family carers or staff will be able to locate the person quickly and get him or her back home safely.

The GPS trackers also provide safety for people living in nursing homes. “Previously, not all residents with dementia had the freedom to walk around freely outdoors as their unpredictable wandering prevented the care staff from locating them if they were lost. This has changed with the use of GPS trackers”. – Dementia Coordinator Inge Tranholm, Skanderborg Municipality, Central Denmark Region.

“Previously, not all residents with dementia had the freedom to walk around freely outdoors as their unpredictable wandering prevented the care staff from locating them if they were lost.”
Increasing knowledge and professional skills

Denmark holds a leading position when it comes to research and expertise on dementia. With the National Action Plan on Dementia 2025, the transformation of knowledge and expertise into practice is given even higher priority.

A high level of expertise and skills is essential to provide high quality services for people with dementia and caregivers.

Knowledge and skills in relation to dementia are part of the training in several basic education programmes in Denmark, including education programmes for social and healthcare helpers, nurses and doctors. A number of continuing education programmes also offer specific courses about dementia to various groups of healthcare professionals, and, in addition, a variety of courses and education programmes are provided by various public and private organizations and institutions across Denmark.

As part of the National Action Plan on Dementia, several initiatives have been established to reinforce research efforts and to increase knowledge and skills among healthcare professionals. A dementia “flying squad” and programmes of interactive E-learning are two examples of current Danish initiatives, which provide unique methods of education and upgrading of skills on dementia among healthcare professionals.
A dementia “flying squad” can improve competence and skills of dementia care staff

A dementia expert task force travels across Denmark to provide support at organizational levels and to upskill staff in nursing home facilities. The aim of this unique national initiative is to strengthen competence and skills of dementia care staff.

As the number of people with dementia increases, the need for qualified and well-educated professionals increases accordingly. A Danish dementia task force travels across the country to develop skills of care staff in Danish municipalities. The methods used by the taskforce are based on a combination of knowledge of dementia diseases and person-centred care. Staff, who participate in the programme, receives practice-oriented learning. They are guided through a process of professional reflection and analysis of complex situations reflecting their daily work with people with dementia. Methods to include and collaborate with relatives are also essential parts of the education programme.

Evaluation of the programme shows that it improves staff’s competence and skills, and they become more confident that they are able to handle difficult situations in the daily care of people with dementia. This also leads to improve job satisfaction. Results also show improved skills among nursing home managers, who become better at taking action to lead the way and to move forward new initiatives.
E-learning: Interactive technology-based staff education

The free Danish “ABC Dementia” e-learning concept gives professionals, who are working with people with dementia, an opportunity to improve their knowledge on dementia in a flexible way. The method is based on an interactive practice-oriented approach, which makes the process of learning authentic and meaningful.

The Danish e-learning concept “ABC Dementia” targets various groups of professionals within healthcare and caregiving. Users are challenged with interactive elements such as multiple-choice tests, quizzes, personal reflection and video sequences to promote learning.

So far, two courses have been developed. “ABC Dementia for professional caregivers” is an e-learning course aiming to increase knowledge of person-centred care, and how to increase quality of life for people with dementia living in nursing homes. The other course, “ABC Dementia for doctors” is mainly targeting junior doctors who have residency in neurology, gerontology, psychiatry or general practice. This course gives the doctors increased knowledge of dementia, diagnostic evaluation and treatment.

The e-learning concept of ABC Dementia is an easy way to provide knowledge about dementia to professionals across Denmark. E-learning can reduce time away from the workplace as employees can take the course at their own pace and at a convenient time and place. It can also make staff education more consistent. By applying e-learning to a specific group of staff, it can be ensured that everyone receives the same training. ABC Dementia is systematically applied to staff in many organizations across Denmark, for instance at OUH Svendborg Hospital in the Region of Southern Denmark, where the ABC Dementia courses contribute to the development of a dementia friendly hospital, by giving all healthcare staff basic knowledge and skills on dementia.

ABC Dementia has been developed by Danish Dementia Research Centre. The process of designing e-learning of high quality requires collaboration across a range of professional disciplines.

ABC Dementia has been developed through an iterative collaboration process involving dementia experts, communication and graphic design specialists, and instructional designers with expertise on acquisition of knowledge.

A user panel has also been involved, giving the development team crucial feedback on user experience.
Denmark – a dementia friendly society – driven by professional skills, co-operation and innovation

Denmark has come a long way and holds a strong international position as a dementia friendly society based on an ambition to combine professional skills and cooperation on innovative solutions. Danish companies contribute to this position by providing solutions that support people with dementia, their relatives and healthcare professionals. To ensure achievement of the highest possible level of being a dementia friendly society, Denmark has launched the National Action Plan on Dementia 2025.

The National Action Plan on Dementia 2025 gives priority to a number of initiatives focusing on involving relatives as well as increasing quality of life, dignity and safety for people with dementia. This includes building a strong and highly qualified cross-sectorial collaboration on early detection, diagnostic evaluation and treatment of people with dementia. Furthermore, rehabilitation is a central part of Danish health and elderly care; it enables people with dementia to be as resourceful and independent as possible, and this is essential for delivering high quality care that meets individual needs and preferences. In order to provide these opportunities to people with dementia, they are offered individualized support and empowering initiatives.

Initiatives to support and guide relatives to people with dementia are also important to the success of dementia care and are given high priority in the National Action Plan on Dementia 2025. Furthermore, dementia friendly communities and housing are important to safety, quality of life and coping with dementia. A range of innovative solutions to this are currently evolving all over Denmark.

The initiatives of the National Action Plan on Dementia 2025 depend on a high level of knowledge and skills among professionals as well as leading edge new solutions, which are based on the latest research and innovation. This white paper has presented some of the unique Danish solutions, which contribute to making Denmark a dementia friendly country.

“Rehabilitation is a central part of Danish health and elderly care; it enables people with dementia to be as resourceful and independent as possible.”

Please contact Healthcare DENMARK if you want more information about the solutions presented in this white paper on dementia, or if you want to follow the next level of innovation within this field. On the Healthcare DENMARK homepage, you can also request a delegation visit, if you want to come to Denmark and get more inspiration on innovative solutions for a dementia friendly society.
Healthcare DENMARK is the international gateway to Danish healthcare expertise and innovation. Our aim as a non-profit public-private partnership is to internationally benchmark Danish best practices within healthcare.

The goal of Healthcare DENMARK is not to sell or promote any specific products or solutions, but to communicate the strongholds of Danish healthcare. We do this by attracting health politicians, decision-makers, and journalists to experience Danish healthcare solutions in practice and meet the people behind. Our network is an extensive pool of public sector, private companies, and other actors in the area of healthcare – all dedicated to providing excellent and efficient healthcare as well as sharing best practices across borders and professions.

“In Denmark our focus on putting the patient first – combined with efforts to improve efficiency and quality – has resulted in a wide array of innovative solutions. I sincerely believe Danish solutions and expertise can have a positive impact on global health.” – Her Royal Highness Crown Princess Mary of Denmark

If you would like to learn more about our world-renowned healthcare, we can assist you with tailoring a visiting program, setting up meetings, and arranging access to otherwise off-limits areas and people within both the public and private sectors, as well as assist you with local accommodation and transportation.

Healthcare DENMARK has a national and political mandate to provide this service to politicians, relevant top and management level professionals, and journalists working with healthcare.

Backing this public-private initiative is a partner group of both public and private key actors within Danish healthcare, including the Ministry of Health, the Ministry of Foreign Affairs of Denmark, the Ministry of Industry, Business & Financial Affairs, Danish Regions, Region of Southern Denmark, the Confederation of Danish Industry, the Confederation of Danish Enterprise, Falck, KMD, Systematic, OpenTeleHealth, Intelligent Systems, Public Intelligence, and Vendlet.

Her Royal Highness Mary, Crown Princess of Denmark is patron of Healthcare DENMARK.

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