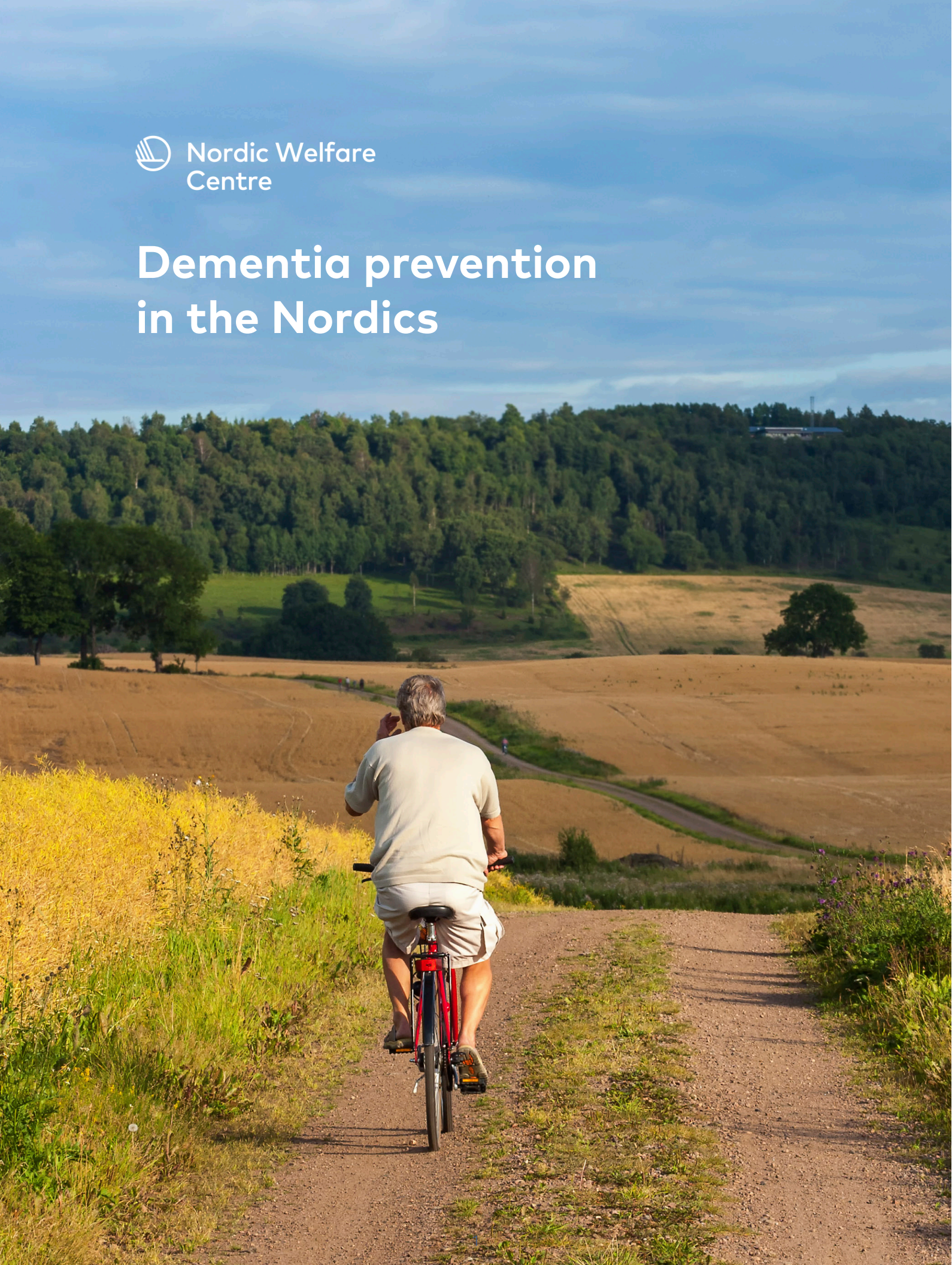
Nordic Welfare Centre

Dementia prevention in the Nordics



Contents

This publication is also available online in a web-accessible version at:
https://nordicwelfare.org/pub/Dementia_prevention_in_the_Nordics/index.html

Executive summary

Background, aims and methods

This report explores dementia prevention in the Nordics and provides examples of preventive policies and practices. It also reviews these measures in relation to current evidence on dementia prevention, striving to strengthen Nordic co-operation in the field.

The report is driven by the fact that an increasing number of people are at risk of developing dementia and other chronic diseases, which is a major challenge both to individuals and to the Nordic society and the healthcare systems. At the same time, new evidence on healthy lifestyle and other health promotive factors show that preventive measures pose a great opportunity to reduce the dementia risk. Most of the existing evidence on dementia prevention has been gathered over the past 10–15 years and includes research on recognised modifiable risk factors, as described by the 2020 Lancet Commission on Dementia Prevention, Intervention and Care, and the World Health Organization's guidelines from 2019. The evidence shows that 12 risk factors can trigger the onset of dementia: physical inactivity, smoking, hypertension, head injury, excessive alcohol consumption, less education, social isolation, hearing impairment, diabetes, obesity, depression, and air pollution. These risk factors should be addressed with preventive measures on strategic and practical levels alike.*

Methodologically, the knowledge base for this report rests on a descriptive analysis extracting, systematising, and presenting data from literature and documents, individual interviews, and information and discussion from a reference group. The participants in the reference group represented different sectors and levels in the Nordic countries and shared their expertise on how to lessen the risk of developing dementia.

This report describes the current policy and practice of dementia prevention in Norway, Iceland, Sweden, Denmark, and Finland with Åland Islands. While many risk factors for dementia also apply to the prevention of other non-communicable diseases (NCDs), it has not been possible in the current project to obtain a complete overview of all practices that might have an impact on the risk of developing dementia. The national and local level initiatives are presented with examples. The recommendations cover the dimensions of evidence and practice of dementia prevention in the Nordics, the importance of organisational aspects, interaction between preventing dementia and preventing NCDs, and proposals to improve dementia prevention across the Nordic region.

**Additional information: The manuscript for this Nordic report was already finalized, when The Lancet published the third review paper on dementia*

prevention, intervention and care (Livingston et al., 2024). The new data on vision loss and hypercholesterolemia as important modifiable risk factors has therefore not been included in this report. The addition of these two risk factors has increased the prevention potential to nearly half of all global dementia cases. These results reinforce the importance of dementia prevention policy and practice in Nordic society.

Results and future recommendations

The Nordic countries have adopted a range of evidence-based measures against the risk of dementia and for maintaining good brain health, but none of these countries has so far used the full body of evidence on dementia prevention as the basis for a systematic prevention strategy from a comprehensive life-course perspective.

National level measures include free education for all, legalisation and regulation on tobacco and alcohol, awareness campaigns, public health guidelines and information on healthy food and physical activity, lifestyle counselling, risk factor monitoring, secondary prevention for high-risk groups, and tertiary prevention for those already diagnosed with dementia. Practical programmes and support at a local level are provided by voluntary organisations, healthcare centres, and municipalities.

Dementia prevention requires a holistic approach, because lifestyle factors are commonly connected to preventing and reducing the risk of many diseases. Dementia prevention should therefore be integrated into preventing other NCDs as a part of a long-term strategy.

We have identified some areas for improvement in the implementation of preventive measures against dementia. There is, for example, a crucial lack of awareness both in the main population and in more vulnerable groups. Additionally, the implementation of practice should focus on making healthy lifestyle choices available to everyone, promoting brain health and supporting cognitive functionality during the whole lifespan. Prevention of specific risk factors for dementia, such as hearing loss and mental under stimulation, might not be accounted for and risk to be forgotten as powerful preventive measures.

Organisational aspects in the municipalities can support the implementation of dementia-preventive measures. A comprehensive municipal approach, with good local plans and legal structures in place, can make a marked difference. A broad prevention strategy across all sectors would strengthen the provision of prevention among high-risk groups in municipalities, including minority groups, those with lower income levels, and people with low health literacy. The unequal distribution of social determinants of health conditions in which people are born, grow up, live, work, and age are also important population-level factors in the regulation and legalisation efforts.

It must be recognised that individuals with intellectual disabilities, especially those with Down syndrome, need comprehensive measures at the local level to mitigate the increased risk of early onset dementia. This includes healthy lifestyle counselling to combat obesity, providing good education, physical activity, healthy food, and social inclusion. National guidelines and programmes can support local efforts to prioritise these measures.

In some cases, it may be efficient to include primary and secondary dementia prevention in existing structures for the prevention of other NCDs. What is good for the heart is also good for the brain. Examples of local structures include Health-Promoting Communities and healthy lifestyle counselling and monitoring in public arenas such as schools, healthy life centres and primary healthcare centres.

It is also important to recognise that regulations and legislation to reduce the availability and consumption of alcohol and tobacco significantly protect brain health. Many countries already have comprehensive regulations and legislation on alcohol and tobacco in place. These measures should be preserved and recognised as part of dementia prevention.

Continued Nordic–Baltic cooperation could contribute to further knowledge sharing on dementia prevention. A shared focus on developing this novel area can enhance dementia-prevention efforts in the Nordics and Baltics in the coming years.

Preface

The expected increase in the number of people suffering from dementia is intertwined with the ageing Nordic population. More and more older adults will live with dementia diseases impacting their everyday lives. The Nordic societies are trying to adjust to this challenge and to the rising needs of good dementia care. In parallel, mounting evidence on the efficacy of dementia prevention encourages the Nordic countries to upgrade their preventive work, and to mitigate the effects of cognitive decline in the population.

This report explores lifelong opportunities to promote good brain health and to prevent dementia later in life. It also looks at the crossroads between dementia prevention and other existing preventive measures that aim at improved health in the Nordic populations. This perspective examines both possible health synergies and what is truly unique for dementia prevention.

The Nordic Council of Ministers' vision is that by 2030, the Nordics will be the most integrated and sustainable region in the world. Nordic cooperation is key to fulfilling this vision. Sharing examples of dementia prevention work is part of that topical Nordic cooperation. This report stems from the Nordic Welfare Centre's project on dementia prevention in the Nordic countries that was initiated by the Swedish Ministry of Health and Social Affairs and funded by the Nordic Committee of Senior Officials for Health and Social Affairs.

We would like to thank Grete Kjelvik at the Norwegian National Centre for Ageing and Health, and the expert team behind her, professors Geir Selbæk and Anne Marie Mork Rokstad, for their dedicated work on this report. The report has been undertaken in close collaboration with project manager Pia Nevala Westman at the Nordic Welfare Centre. We are also grateful to the Nordic dementia network, the interviewees, and the reference group of Nordic experts for their significant contribution in the project. The names of the interviewees and participants of the reference group meetings are fully disclosed in the appendices.

We hope that the Nordic examples on policy and practice displayed in this report will inspire future work on dementia prevention and brain health promotion in the Baltics and the Nordics alike.

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Introduction

Assignment

With an ageing Nordic population, the number of people with dementia keeps growing. An increasing number of people at risk of developing dementia poses a major challenge to individuals and the society at large. The Nordic Council of Ministers for Health and Social Affairs has therefore highlighted the need to map policies and practices on dementia prevention in the Nordic countries. In 2023–2024, the Nordic Welfare Centre was assigned by the Nordic Council of Ministers to manage the project on dementia prevention in the Nordic countries. The Norwegian National Centre for Ageing and Health committed as a core partner in this project and undertook the task to map and compile the report. This compilation of the status and development in the field of dementia and prevention provides important knowledge of the Nordic efforts to design measures that promote brain health, preserve cognitive capacity, and, to an extent, delay or prevent symptoms of dementia.

Purpose

The purpose is to explore dementia prevention in the Nordic countries, give examples of policies and practices, and to review these measures in relation to current evidence on dementia prevention.

The report seeks to answer the following questions:

- What does dementia prevention look like in the Nordic countries and Åland Islands, and are prevention efforts put into practice in line with the current evidence?
- What are the barriers and opportunities for the Nordic countries to include a preventative perspective on dementia?

- What is the role of strategic governance and organisational aspects in dementia prevention?
- How can prevention of dementia delineate or interact with existing public strategies for the prevention of NCDs such as heart disease or diabetes?

Dementia diseases

Dementia is a condition characterised by changes in cognition and behaviour to such an extent that it affects the ability to cope with daily life. The criteria for dementia are listed in the international classification system of diseases ICD-10 (World Health Organization [WHO], 2004). Dementia can be caused by several different diseases, of which Alzheimer's disease (AD) is the most common. Other common types of dementia are vascular dementia, Lewy body dementias, and frontotemporal dementia. Mild cognitive impairment (MCI) can be a precursor to dementia with changes in previous levels of cognitive function which do not substantially affect activities of daily living.

Worldwide, 55 million people are living with dementia, and 75 million are estimated to live with dementia in 2030 (Alzheimer's Disease International, 2021). Unfortunately, there are no fully comparable Nordic statistics on dementia prevalence or incidence, due to lack of comparable data collecting methods in the Nordic countries, but it is estimated that the number of people with dementia will more than double by 2050 in Norway (Gjora et al., 2021), and the situation is likely the same for the entire Nordic region. Prevalence and incidence are defined in fact box 1. The picture is further clarified by two examples, one on the estimated prevalence of dementia in Norway and the other by incidence of dementia in Finland.

Fact box 1. *Prevalence and incidence of dementia.*

Prevalence: Prevalence is the proportion of a population who have dementia in a given time (National Institute of Mental Health, 2024).

- The total number of people with dementia in Norway, with a population of 5,6 million (Statistisk sentralbyrå, 2024), was calculated to amount to approximately 101,000 people in 2020 (Norwegian National Centre for Ageing and Health, n.d.), and the number is projected to increase to 237,000 by 2050 (Gjora et al., 2020; Gjora et al., 2021).

Incidence: Incidence is a measure of the number of new cases of dementia that develop in a population in a specific time period (National Institute of Mental Health, 2024).

- In Finland, with a population of 5,5 million (Worldometer, 2024), new statistics based on national register data show significantly higher incidence than estimated before. New cases of dementia are estimated to number at 23,000 compared to the previously estimated 14,000 persons getting dementia every year. This is the result of an improved and more accurate data collecting method (Finnish Institute for Health and Welfare, 2024).

Importance of dementia prevention

Dementia is a key challenge globally (Alzheimer's Disease International, 2024; WHO, 2019). The Nordic countries are no exception. The risk of developing dementia increases with age, and the Nordic population is ageing rapidly.

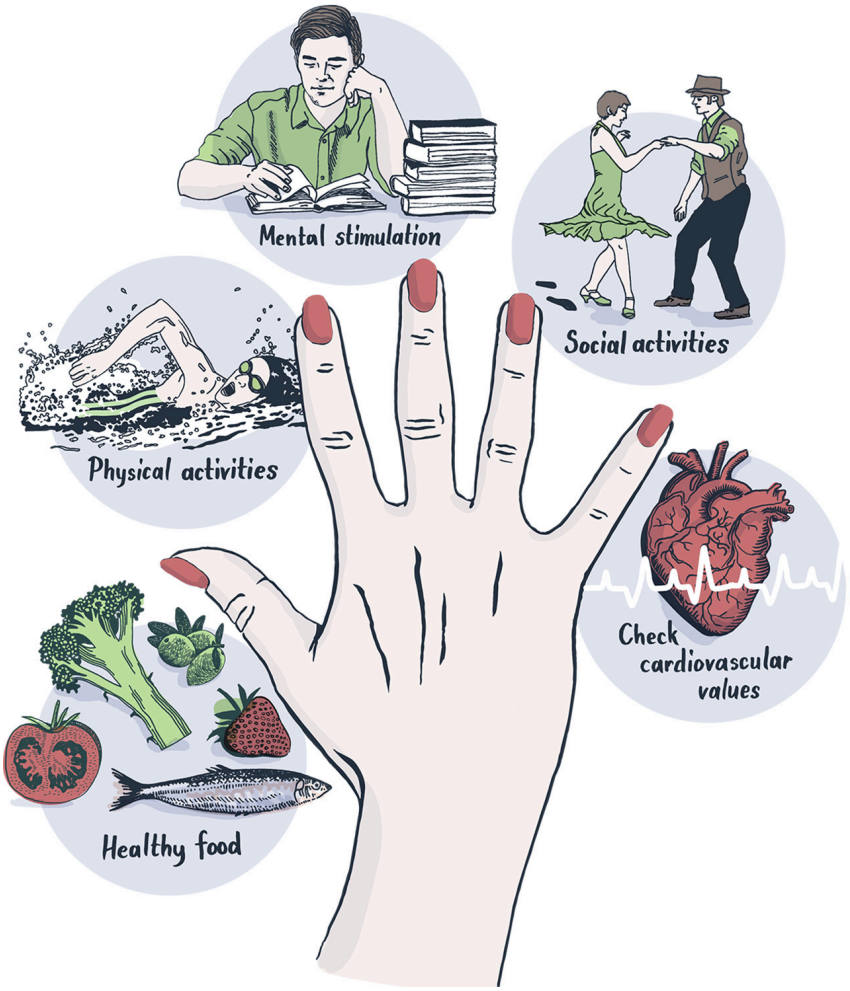
The societal costs of dementia are high both in Europe and in the Nordic countries (Jonsson et al., 2023). The increased proportion of older adults in the society drives the increase in health spending, shows a study from Norway on future disease-specific health spending (Kinge, 2023). The total societal costs of dementia in Sweden are calculated to total SEK 81.6 billion based on various population studies (Karolinska Institutet, 2023). The ageing population and increased prevalence of preventable NCDs is a challenge to the healthcare systems in the Nordic countries and has fuelled political interest in health promotion and prevention.

While dementia has been considered to be beyond our control, an emerging body of evidence shows that optimal environmental and lifestyle factors support cognitive functions and can protect against dementia. Thus, dementia prevention has lately become an important topic on the Nordic public health agenda.

Research and evidence

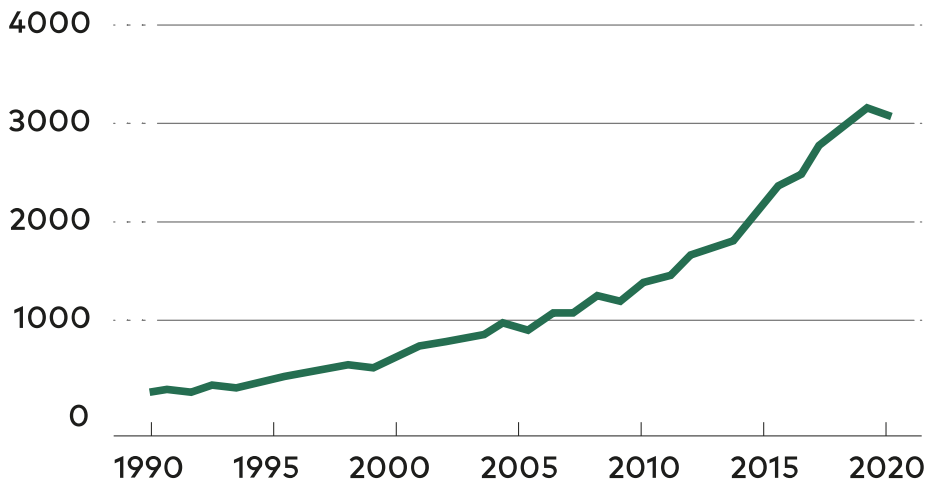
Since 2009, several studies have showed a falling incidence of dementia in the USA and the European countries (Middleton & Yaffe, 2009; Wolters et al., 2020). These results have inspired researchers to investigate which factors have influenced the decline and if there are opportunities for prevention. In 2015, the Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability study (FINGER), was the first published randomised control trial to show that modification of a set of lifestyle factors in older adults can slow down cognitive decline in later life (Ngandu et al., 2015). The FINGER study has since expanded to a large international network from over 62 countries, called the World Wide Finger Network (World Wide Finger, 2024). Figure 1 shows the FINGER model based on a combination of five healthy lifestyle measures: healthy food, physical activity, cognitive challenges, social stimulation in group activities, and control of vascular risk factors.

Figure 1. *The FINGER model. Illustrations: Martina Krona in Kivipelto & Hellénius (2022).*



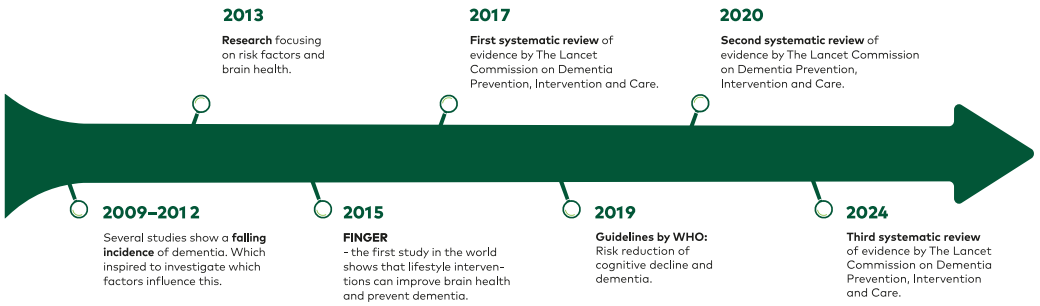
The Lancet Commission on Dementia Prevention, Intervention and Care is a platform of international group of experts, who – led by a team at University College London – made a comprehensive literature review and produced recommendations for practice on Dementia prevention, intervention, and care. Since 2017, when the commission published the first evidence-based report on prevention and intervention in dementia care, the prevention of dementia has gained even more focus in research (Livingston et al., 2017). The 2017 report described nine modifiable risk and protective factors that have different significance in different phases of life. The research and volume of scientific articles in the field of dementia prevention has increased remarkably. Figure 2 illustrates the development in research over time based on the number of hits in PubMed on research articles in 1990–2024.

Figure 2. *Timeline of results per year in PubMed with search query "Dementia prevention, 1990–2023".*



The World Health Organization declared dementia as a public health priority in 2019 and provided evidence-based recommendations on lifestyle behaviours and interventions to delay or prevent cognitive decline and dementia (WHO, 2019). The Lancet Commission on Dementia Prevention, Intervention and Care published a follow-up publication in 2020, urging nations, stakeholders, and individuals to be ambitious about dementia prevention (Livingston et al., 2020).

Figure 3. *Timeline of the development in the field of dementia prevention during the last 10– 15 years. (Figure designed by the Norwegian National Centre for Ageing and Health, Linn Lundsvoll/Grete Kjelvik).*



Risk factors for dementia

Nine modifiable risk factors for dementia were identified by the 2017 Lancet Commission on Dementia Prevention, Intervention and Care in 2017. Those were low educational attainment, hearing loss, hypertension, obesity, tobacco smoking, depression, social isolation, physical inactivity, and diabetes (Livingston et al., 2017). In 2020, three more factors were added: air pollution, alcohol, and brain injury (Livingston et al., 2020). Figure 4 illustrates the 12 modifiable risk factors for dementia.

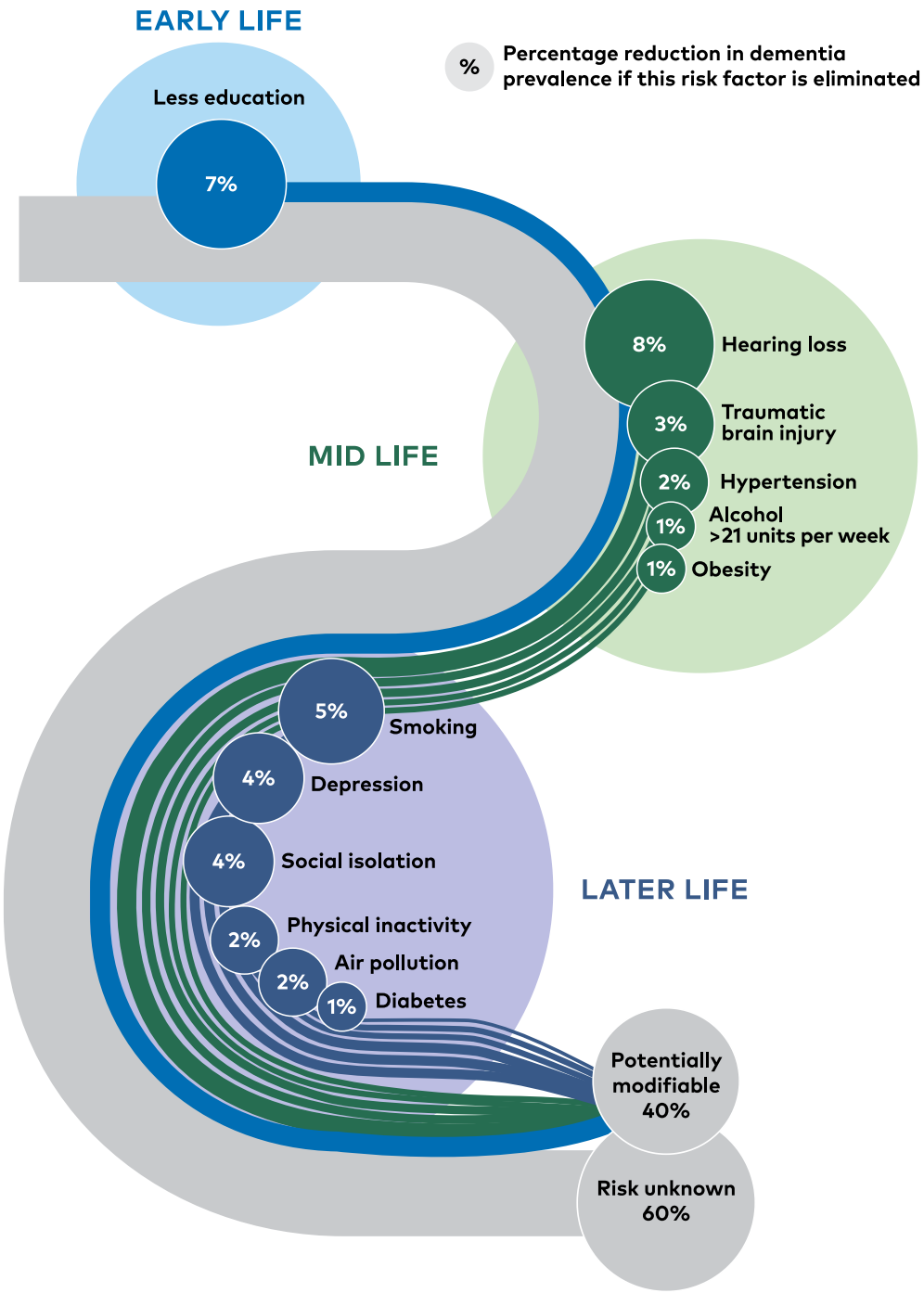
Figure 4. *12 modifiable risk factors for dementia. (Made by Martin Lundsvoll/ Grete Kjelvik, illustrations by Headspin AS).*

The 2020 Lancet Commission on Dementia Prevention, Intervention and Care estimated that 40 percent of the dementia cases could be prevented or delayed globally by targeting these 12 modifiable risk factors in a life-course perspective from the very young to older adults (Livingston et al., 2020). Healthy lifestyle changes, less air pollution and monitoring of hypertension and hearing loss, can have a significant societal impact on the future burden of disease caused by dementia and other diseases.

Since the non-modifiable risk factors age, sex, and genetics cannot be altered, it's important to recognize the power in the modifiable risk factors listed by Livingston et al (2020). Health-enhancing factors can mitigate the risk of dementia also in people with high genetic vulnerability. Risk accumulates throughout the life course, and health behaviours may need to be improved or altered 30 or 40 years prior to the onset of the disease. Consequently, the primary prevention of dementia is as challenging as for other NCDs. The most effective prevention is a health-promoting lifestyle and society from early childhood. Figure 5 shows a life-course model based on evidence of potentially modifiable risk factors for dementia.

> **"It's never too early nor too late in the life course for dementia prevention."**
>
> **Livingston et al. (2020)**

Figure 5. *Population-attributable fraction of potentially modifiable risk factors for dementia. Copyright: Livingston et al., 2020. Dementia prevention, intervention, and care.*



Intellectual disability

People with intellectual disabilities belong to a high-risk group of developing dementia (Strydom et al., 2013). People with Down syndrome have an even higher risk of developing dementia due to the non-modifiable factor of genetics (Fortea et

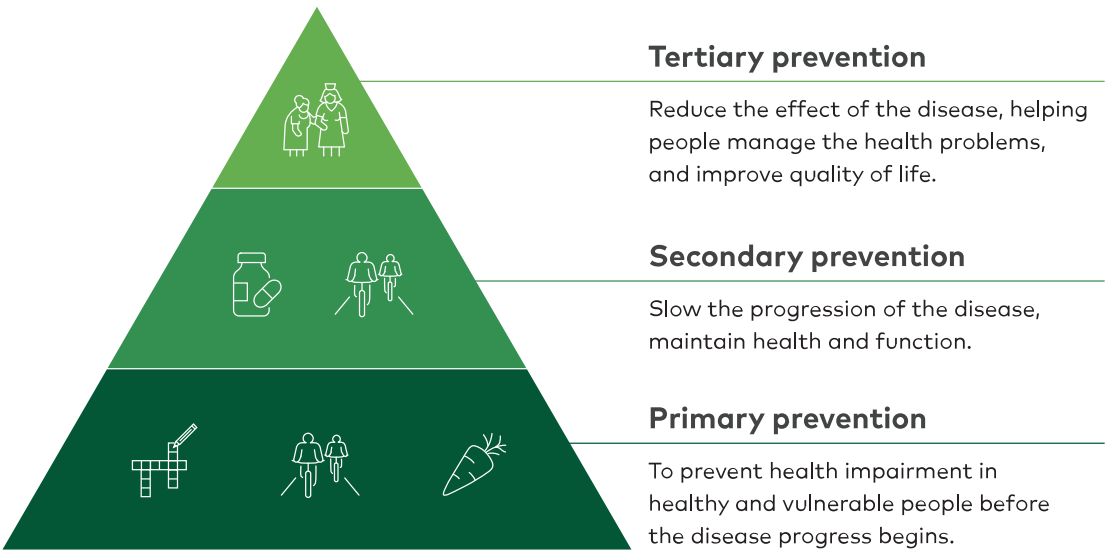
al., 2021). Also, this group often has lifestyle risk factors to dementia: according to McCarron and colleagues (2017), the risk of dementia for people with Down syndrome is 23% at age 50, 45% at age 55 and 85% at age 65. An estimated six million people worldwide have Down syndrome (Ballard et al., 2016), making them likely the largest single population group in the world at a heightened risk of dementia. In their report of autumn 2023, Alzheimer's Disease International calls for a greater focus on the prevention of dementia among people with Down syndrome (Long et al., 2023).

Given that people with intellectual disabilities often have lifestyle risk factors for dementia, a preventive approach is needed. The potentially modifiable factors in this group include lack of access to education and employment, higher rates of sleep apnea, vision and hearing impairments, diabetes, and obesity (Aslam et al., 2022). For people with Down syndrome, a large European study shows that sleep problems, mental health problems, and several co-occurring conditions were associated with early onset of dementia in younger ages (Larsen et al., 2024). Individuals with intellectual disabilities, both with and without Down syndrome, are often overweight, have a poor diet and get little physical activity, and they often experience loneliness.

Definitions of prevention

Prevention is an ambiguous and positively charged term for attempts to eliminate or limit an undesirable development. Prevention of a disease can be defined as three levels: primary, secondary and tertiary prevention (Last, 2001; Szklo, 2007).

Figure 6. *Prevention of dementia. (The Norwegian National Centre for Ageing and Health, Linn Lundsvoll and Grete Kjelvik)*



This section clarifies the conceptual understanding of the different levels of prevention.

1. Primary preventative measures

Primary prevention measures aim to prevent health impairment in healthy and vulnerable people/people at risk. Primary prevention includes measures that prevent disease before the disease process begins (Last, 2001). This is done by preventing exposure to hazards that cause the disease, influencing unhealthy or unsafe behaviours that can lead to disease, and increasing resistance to disease should exposure occur (Den norske regjeringen, 2011). Primary preventive measures against dementia risk and for maintaining good brain health can be implemented at the individual and population levels. Health promotion is the process of enabling people to increase control over and to improve their health (Nutbeam, 1986).

2. Secondary preventative measures

Secondary prevention includes measures that enhance early diagnosis and prompt treatment of a disease and to offer symptom relief. Secondary prevention also seeks to prevent the onset of further symptoms or disease. This is done by detecting and treating disease as soon as possible to slow down its progress, encouraging personal strategies to prevent disease-related complications and recurrence, and implementing programmes to return people to their original state of health and function to prevent long-term problems.

3. Tertiary preventative measures

Tertiary prevention aims to reduce the effects of the disease once established in an individual. Tertiary prevention aims to mitigate the impact of an ongoing disease that has lasting effects, such as dementia. This is done by helping people manage long-term often complex health problems such as chronic disease and permanent impairments to improve their ability to function, their quality of life, and life expectancy as much as possible (Den norske regjeringen, 2011).

The focus in this report is on primary prevention of dementia. Secondary and tertiary prevention will be touched upon more briefly.

Prevention: Population level vs individual level

Preventive measures against dementia risk and for maintaining good brain health can be implemented at the individual and population levels.

An individual-level approach targets people's lifestyle-related risk factors for dementia development and encourages adoption of healthier behaviours. Adopting a healthy lifestyle requires conscious behavioural change. Examples of preventive behavioural changes among high-risk individuals include increasing the level of physical exercise, quitting smoking, and undertaking cognitive training, in addition to dietary advice to help normalise their weight and reduce obesity (WHO, 2022).

Population-level prevention targets the risk profile of communities or the entire population by changing societal conditions and is characterised by unconscious behavioural change (Walsh, 2023). Examples of population-level prevention measures are national screening-programmes, awareness campaigns, public health guidance, and promoting healthy ageing through plans and strategies (WHO, 2022). Population-based approaches require engagement from a broad group ranging from stakeholders in local government to politicians at the national level. An unequal distribution of social determinants of health conditions in which people are born, grow up, live, work, and age are also important factors to focus on in regulating and legalising efforts at population level.

Table 1. *Examples of prevention policies in relation to risk factors for dementia according to an individual or population approach (Walsh, 2022).*

Risk factor	**High-risk individual prevention** (Conscious behaviour change)	**Whole population prevention** (Unconscious behaviour change)
Obesity and physical inactivity	• Identification of individuals at high risk by primary care-based routine health check-up of all late middle-aged individuals and referral of obese individuals to weight management clinics/exercise clinics.	• Investment in walking/cycling infrastructure that makes active travel easier and safer. • Subsidised cycling equipment. • Investment in better quality green spaces. • Designing buildings so that staircases are more prominent than escalators.

Poor diet	• Partial replacement of welfare benefits with fruits and vegetable vouchers. • Individual dietary interventions and advice.	• Sugar levy. • Changes to licensing law to influence the food environment. • Adding nutrition and culinary skills into the school curriculum.
High blood pressure	• Identification of those with high blood pressure by primary care-based routine health check-up of all late middle-aged individuals and offering intensive pharmacological blood pressure management.	• Legislation and work with industry to reduce salt content of food.

Smoking	• Identification of smokers by primary care-based routine health check-up of all late middle-aged individuals and offering smoking cessation advice and support.	• Banning the advertisement of cigarettes and mandating plain packaging. • Legislating smoke-free indoor public spaces
Low education and lack of cognitive stimulation	• Mobile phone application designed to encourage recently retired people worried about losing their memory, to engage in cognitive training each day.	• Legislation and cultural work to raise average age that boys and girls remain in formal education. • Subsidies for higher education. • Improving the quality of work available and supporting in-work training.

Social isolation and loneliness	• Social prescribing for those reporting feeling isolated or lonely into community activities or voluntary groups.	• Cross-government work to improve cohesion and integration. • Age-friendly town planning. • Improving internet access to rural areas. • Investment in public transport in rural areas.

Examples of prevention policies against risk factors for dementia, according to individual or population approach. Reused from Walsh et al.2022 under a CC BY 4.0. copyright agreement.

Prevention of dementia and other non-communicable diseases

Dementia is a non-communicable, chronic, and serious disease. Many of the risk and protective factors for dementia are identical with those for other NCDs (WHO, 2013). At the same time, dementia is defined to varying degrees as an NCD in strategic documents. The European Commission defines dementia as a type of NCD (European Commission, 2024), while the WHO does not (WHO, 2023). Based on an unclear classification, there are different approaches to prevention efforts in relation to dementia. The implementation of preventative measures against dementia might be combined in preventative programmes to reduce the risk of NCD, either primary prevention with a perspective on broad measures at population level or a risk-group perspective with measures at group and individual level.

The European joint action Prevent NCDs, coordinated by the Norwegian Institute of Public Health and the Norwegian Directorate of Health strives to improve the system of monitoring NCDs and their common risk factors. Joint Action Prevent NCDs started on 1 January 2024 and is designed to improve the planning and implementation of prevention policies and activities at national, regional, and local levels. With 10 work packages, the European project will last at least four years. The project addresses health determinants common to cancer and NCDs, and examples of work packages are Regulation and taxation and Identify individuals at risk (European Union, n.d.). Task 1 is designed to prepare general and country-specific reports for decision- and policymakers based on real-world data on prevention strategies for dementia and stroke. Enhancing cross-national collaboration fosters a sense of unity and shared responsibility in addressing global health challenges.

The WHO global action plan on the public health response to dementia 2017–2025 includes a set of actions to deliver on the vision of a world in which dementia is prevented. The third action area, dementia risk reduction, states that there is growing evidence to suggest an interrelationship between dementia on the one hand and noncommunicable disease and lifestyle-related risk factors on the other (WHO, 2019).

> **"We need to do everything we can to reduce our risk of dementia. The scientific evidence gathered for these Guidelines confirms what we have suspected for some time, that what is good for our heart, is also good for our brain."**
>
> **Director-General of WHO, Dr Tedros Adhanom Ghebreyesus (2019)**

Methodical approach

Analysis

This analysis draws on the prevention of dementia as a development project to obtain an overview of the status of policy and practice of the work in the Nordic region. The knowledge base for this report has been built through a descriptive analysis extracting, systematising, and presenting data from literature and documents, individual interviews, and information and discussion from a reference group without further interpretation or abstraction. The data collection is described in the subsections below.

Table 2. *Model of the descriptive approach.*

Policy of dementia prevention, national overview
Norway
Iceland
Denmark
Sweden
Finland
Legislation and regulation
Examples of practice at national level

Awareness campaigns

Public Health guidelines and information

Examples of practice at local level

Voluntary organisations

Non-Governmental organizations [NGOs]

Municipalities and health care regions

Lifestyle interventions and secondary prevention

Literature search

We conducted literature searches of Google Scholar and PubMed to get an overview of grey literature and recent research. We also visited key websites and gained input from the reference group and support from the Nordic Welfare Centre. Two large literature searches were done in September 2023, and updated in March 2024, in the PubMed database and Google Scholar. We conducted one search of the Nordic regions in PubMed, with no restrictions on time or type of document. Search term: prevention of dementia in the Nordics. The second search in PubMed was a general one with the search term dementia and prevention, delimited to 2015 to 2023. The publications included meta-analyses, reviews, and systematic reviews. In Google Scholar, the search terms were prevention, dementia, and the name of the country. We sorted the references by selection criteria of relevance to this report based on an updated bibliography in dementia prevention in the Nordics.

Individual interviews

As part of the mapping of Nordic policy and practice, individual interviews were used as a way of collecting reference material about country-specific work within dementia prevention. The participants were recruited by the Nordic Welfare Centre and the Nordic dementia network.

The 20 members of the Nordic dementia network, including the coordinators of the thematic subnetworks for dementia and ethnic minorities, people with intellectual disabilities, and Indigenous peoples, received an email invitation to participate in an interview about dementia prevention. Participation was voluntary, and each Nordic country participated with at least one expert. Eight persons accepted the invitation and are listed in appendix 2. The interviews were conducted using Teams, and a

total of 15 open-ended questions were asked, see Appendix 1. The interviews were recorded and transcribed. The questions in the interview guide pertained to dementia prevention in terms of evidence, policy, and practice in the Nordics. Important knowledge and central points from the interviews are included in the results section. A selection of quotations from the interviewees are reproduced in the text.

Fact box 2. *Nordic dementia network*

Nordic dementia network

The Nordic dementia network consists of experts from ministries, government agencies, and national competence services in the Nordic countries and Åland Islands, Faroe Islands and Greenland.The network has recently been given a renewed Nordic mandate and will continue its undertaking to improve dementia care under the Nordic Council of Ministers until 31 December 2026.

The common good for the Nordic countries is created through shared experience and knowledge on national strategies, guidelines, and measures to enhance quality, safety and innovation in investigation, treatment, health and social care, and other services. Evidence-based secondary and tertiary prevention can promote health in persons with MCI or dementia as part of optimised care and services. The Nordic dementia network more seldom touches upon primary prevention, as public health strategies or broader strategies on health promotion in older adults are not included in the network's mandate.

In addition to the main network, three knowledge-generating subnetworks with researchers and other Nordic experts cooperate on dementia and Indigenous peoples; intellectual disabilities; and ethnic minorities respectively.

The Nordic knowledge generating subnetwork on Dementia and Intellectual disabilities

Dementia and intellectual disability have been recognised as an important area for Nordic cooperation. Two experts from the Nordic subnetwork on Dementia and Intellectual disabilities have provided topical knowledge for this report and highlighted the special need for prevention in people with Intellectual disabilities.

The subnetwork has a comprehensive expertise in what could be done to support a healthy lifestyle in people with Intellectual disabilities. The subnetwork has compiled this knowledge in the webinar Att förebygga demens hos personer med intellektuell funktionsnedsättning. Är det möjligt?

Reference group meetings

Nordic project reference group on dementia prevention

The project reference group on dementia prevention consists of 13 people recruited by the researchers and the Nordic Welfare Centre. The participants were strategically chosen to represent different countries, professions, sectors, and levels in the Nordics to mirror different aspects on prevention of dementia. The participants were recruited via email by the Nordic Welfare Centre and represented academic research, non-governmental organisations, ministries, governmental agencies, healthcare, employer organisations, or national competence services. The participants had either specific knowledge on dementia prevention practice and policy, or broader knowledge on the policy and practice of health promotion and prevention of NCDs. Each Nordic country was represented by one or two persons. Åland Islands, Faroe Islands and Greenland were also invited to participate with one participant each. One person from Åland Islands participated, but Faroe Islands and Greenland declined. The reference group met twice during spring 2024, once in a Nordic–Baltic roundtable expert meeting and workshop, and once in an on-line meeting. Most of the group took part in both meetings, whilst others participated only once. See appendix 4, Participants of the Nordic reference group in dementia prevention.

Nordic–Baltic roundtable expert meeting and workshop

The roundtable meeting was held in January 2024. Members of the Nordic project reference group were invited to participate and to discuss and co-work with Nordic colleagues in group discussions on dementia prevention today and how it could evolve in future in the Nordic countries. The Baltic countries were allocated one

optional observatory place each, and four experts from the Baltics participated in the workshop. The list of participants and the workshop tasks are available in appendices 3 and 4. The presentations, discussions, and workshops produced reference materials used in this report.

On-line meeting

The reference group's digital meeting was held in March 2024. On the agenda were reflections on the workshop group discussion held earlier, and in addition group discussions in breakout rooms on questions that needed to be further discussed (see Appendix 5). The meeting was recorded and transcribed. The groups reported their discussions in the breakout rooms via email to the project group.

Results and discussion

Prevention of dementia at a structural level

What does dementia prevention look like in the Nordic countries? This chapter explores the unique approaches taken by each country in the region to tackle this pressing issue and outlines the key components of their dementia prevention policies.

Norway

There is no specific dementia prevention strategy in Norway, as the Norwegian government builds on the same principles as those that underpin public health policy.

> **"As there is no cure or single measure that works against dementia, prevention of dementia must be based on a holistic and broad approach, including individual and population-based prevention."**
>
> **Interviewee, Norway 2023-2024**

The approach to preventing dementia in Norway rests on WHO guidance, with the WHO action plan on the public health response to dementia (WHO, 2019) as the key document. Demensplanen 2025 by the Norwegian Ministry of Health and Care

Services (Helse- og omsorgsdepartementet, 2020) is a central policy document on dementia care, which also includes the prevention of dementia. The plan focuses on the need of increased research and knowledge about prevention and has a broad approach to prevention.

> **"In the prevention of dementia, the government will build on the same principles that underlie public health policy, by facilitating good health for everyone with more good years of life and quality of life, reducing adverse environmental and lifestyle factors and reducing social inequality in health."**
>
> **Helse- og omsorgsdepartementet, 2020**

Because dementia and other NCDs have shared risk factors, dementia prevention is described as a part of the NCD measures in Norway, i.e., the more general public health measures (Norwegian Institute of Public Health, 2010).

The public health act is a Norwegian law that gives municipalities, county councils, and state authorities responsibility for promoting public health (Lovdata, 2012). This also reflects the Norwegian government's strategy document named Folkhelsemeldinga on good public health as the fundament of health and care policy (Den norske regjeringen, 2023). As the government strategy for reducing social health differences, it presents the government's effort to promote better public health and a good quality of life in the population. It also reflects a holistic approach to prevention.

Norway's has previously had a national NCD strategy, and Folkehelsemeldingen recommends that it is to be renewed. A new tobacco strategy is part of the Folkehelsemeldingen and includes a request to ban the online sale of tobacco products, as well as no flavouring in e-cigarettes. In addition, the Norwegian government has a national plan for preventive health and care services in the Nasjonal plan for helse og samhandling (Den norske regjeringen, 2024), an action plan for physical activity (Den norske regjeringen, 2020), a national dietary action plan (Norwegian Directorate of Health, 2023), and a national alcohol strategy 2021–2025 (Den norske regjeringen, 2021). Smoking, alcohol, an unhealthy diet and low physical exercise are all risk factors for dementia. Norway has a quality reform by the Ministry of health and care services called Leve hele livet, and aims to help older adults to cope with life and have a safe and active old age (Den norske regjeringen, 2018).

Iceland

The Iceland health services policy is valid until 2030 (Government of Iceland, Ministry of Health, 2019). According to this document, the strategy for dementia prevention is an overall prevention of NCD diseases in older adults, following the WHO recommendations for primary prevention (WHO, 2019). In 2020 Iceland joined forces with WHO together with a number of other countries to support an integrated approach to brain health (WHO, 2020). The WHO brain health unit works to strengthen policies, service delivery in the health information system, and so on in the area of brain health with a focus on promotion, prevention, treatment, care, and rehabilitation (Brain Health Unit WHO, 2024). The collaboration with WHO seemed to inspire the Icelandic work to a more systematic direction promoting good brain health among the general population.

Iceland also has a specific national action plan for dementia based on a white paper. This plan was adopted by the parliament in April 2020, and will apply until 2025 (Goverment of Iceland, 2020).

The national action plan for dementia includes six main target areas (Ísland.is, 2021):

1. Self-determination, patient involvement, and legal framework.
2. Prevention.
3. Timely diagnosis and follow-up after diagnosis.
4. Activity, self-help, and support.
5. Appropriate service in relation to the stage of dementia.
6. Scope, research, knowledge, and skills.

The chapter about prevention describes two actions: one deals with social isolation as a risk factor for dementia, the other with health promotion to prevent dementia. It's effective to acknowledge the synergies in promoting good health for the heart and the brain at the same time.

The Minister of Health and the Minister of Social Affairs and Labour Market appointed a working group in June 2022 to do an overall audit of services for older adults and to lead the implementation of the action plan on health promotion for them (Ísland.is, 2021). A specific initiative was started, Good to Grow Old, which aims to improve healthy ageing through comprehensive health promotion and flexible services. The service has already improved access to advice and information about services for older people. The comprehensive health promotion includes information on and access to health promotion measures, whether physical, social,

or psychological.

> **"All aboard. The key to success in dementia prevention is that everyone is rowing in the same direction; there is the state, there are municipalities, there are other public sectors and various NGOs."**
>
> **Interviewee, Iceland 2023-2024**

Denmark

A central report from 2022 in Denmark describes the significance for the society of 15 diseases, dementia included (Mairey et al., 2022). These have been selected because they have shown to have a significant impact on the state of health globally (Institute for Health Metrics and Evaluation, 2019). Factors such as quit smoking, reduce alcohol intake, and regular exercise may help to reduce the risk of several chronic diseases, and represent a general approach in the prevention work with a focus on healthy ageing. In connection with work on promoting healthy ageing, the Danish Health Authority published a report as input for the political action plan. This report contains a series of recommendations (Sundhedsstyrelsen, 2022c), all aimed at supporting good ageing – ensuring that as many older adults as possible experience healthy ageing with vitality and quality of life. As dementia was addressed in the dementia action plan (Sundheds- og ældreministeriet, 2016), it is not included as a separate issue here, but a health promotive approach is clear. The report by Danish Health Authority explicitly highlights physical exercise and cardiovascular health, as well as lifelong physical activity, education, social activities, and cognitive stimulation. These risk factors are all in line with the risk factors for dementia highlighted in Livingstone et al. (2020). Additionally, alcohol is mentioned as a specific risk factor. Another Danish report from Danish Health Authority describes the burden of disease for nine selected risk factors: severe obesity, smoking, alcohol consumption, low physical activity, unhealthy diet, sleep problems, loneliness, low score on the mental health scale and air pollution (Sundhedsstyrelsen, 2022b, 2023). The prevention packages are intended as a knowledge-based tool for the municipalities in Denmark working with general prevention and public health.

> **"There is a political focus on healthy ageing in general,**

and how to have a healthier and better older life, with less need for support and assistance."

Interviewee from Denmark 2023-2024

The national dementia action plan in Denmark has five focus areas, but prevention is not one of them (Sundheds- og ældreministeriet, 2016). A significant reason is that the working groups behind the dementia action plan at the time found limited evidence for specific measures when the action plan was drawn up beyond public health recommendations.

Denmark has a specific national Research strategy on dementia for the period 2018–2025 which is exceptional in a Nordic context. The Danish Health Authority (2018) defined recommendations for research to meet the human and societal challenges of dementia. The work on the research strategy was conducted by an expert group including representatives from the Danish Health Authority, Danish Dementia Research Centre, and the Danish Agency of Higher Education and Science. Based on research needs and existing international research strategies, four strategic themes of dementia research were identified. Prevention, treatment, and psychosocial intervention is one of the four themes now part of the Danish research strategy in the field of dementia (Danish Health Authority, 2018; Institute for Health Metrics and Evaluation, 2019). The research strategy draws from the idea that effective prevention of dementia builds on greater understanding of the causes and mechanisms of the disease, e.g., in the form of multi-domain interventions which could include lifestyle changes, treatment of disease, and the strengthening of physical and cognitive resources.

Sweden

The Ministry of Social Affairs and Health has the overall responsibility for the broad public health policy in Sweden. The Public Health Agency has issued a fundamental policy document a public health policy framework based on eight target areas for good and equal health (Folkhälsomyndigheten, n.d.). Target area number six about lifestyle habits, contains the following focus areas:

1. Limited availability to products harmful to health.
2. Increased accessibility to health-promoting products, environments, and activities.

3. Strengthen health promotion and preventive work on lifestyle risk factors in the welfare institutions

In 2011, the Swedish National Board of Health and Welfare published national guidelines for disease-preventing methods, a national guideline of ways of counteracting unhealthy lifestyle risk factors such as alcohol use, tobacco use, unhealthy eating habits, and insufficient physical activity. In 2018 a renewed version was published with the updated title Nationella riktlinjer för prevention och behandling vid ohälsosamma levnadsvanor: Stöd för styrning och ledning (Socialstyrelsen, 2018). These national guidelines for the prevention and treatment of unhealthy lifestyles are currently being updated and to be published in 2025.

The National Board of Health and Welfare has created a deck of trainings and support materials to help healthcare personnel in lifestyle counselling with patients on such questions as eating habits, tobacco, alcohol, and physical activity (Socialstyrelsen, 2019). These can be discussed with patients whenever they visit a healthcare centre or hospital. The guidelines do not, however, mention the prevention of dementia. Since 2021, primary health care in Sweden has been given the responsibility to lead health promotion efforts for its residents (Socialstyrelsen, 2021).

It is anticipated that the forthcoming Social Services Act, scheduled for implementation in summer 2025, will place greater emphasis on health promotion and prevention. The Social Service Act-proposal referred to the Swedish Council on Legislation for consideration in July 2024, emphasises for instance good living conditions for all and counteracting alcohol addiction. The proposal also highlights the needs of supporting health and functional capacity in older adults. Healthy food and physical activity are mentioned as important health promotive measures for this purpose (Socialdepartementet, 2024).

> **"It is possible that the new legislation will affect municipalities' work on dementia prevention in the future, although the precise manner in which this will occur remains unclear."**
>
> **Interviewee from Sweden, 2023-2024**

The government of Sweden decided on the national dementia strategy in May 2018 (Sveriges regering, 2018). In 2020, the National Board of Health and Welfare published the target levels of indicators clarifying the categorisation of dementia diseases associated with the term public diseases. In 2023, the Swedish government commissioned the National Board of Health and Welfare to produce a knowledge report for a renewed national dementia strategy. The board has been

gathering insights from relevant experts and stakeholders such as the Swedish Dementia Centre, the National Competence Centre for Relatives, the Swedish Association of Local Authorities and Regions, and other interest groups. In February 2024, the board published the knowledge report for the renewed dementia strategy (Socialstyrelsen, 2024). The assignment from the Swedish government included the perspective on health promotion and prevention for the renewal of the Dementia strategy. The knowledge report highlights early detection of hearing loss and the FINGER-model. It also states that the Swedish municipalities are interested in in health promotion and prevention for residents over 65 years of age. Special coordinators with expertise in healthy lifestyle could support this work (Socialstyrelsen, 2024).

Finland

Three main strategic programmes are central to Finland's policy of health promotion and dementia prevention. The first is the Finnish government programme 2023, called A Strong and Committed Finland: Programme of Prime Minister Petteri Orpo's Government 20 June 2023 *(Goverment of Finland, 2023)*. This programme argues for the prevention of disease and the promotion of health and well-being in Chapter 2.3 and is to take a broad view of key societal issues in its strategic programmes to promote health and well-being among the older population. The programme covers preventive measures to reduce risk factors for chronic diseases such as dementia and advocates extending healthy life years and improving well-being (Government of Finland, 2023). The aim is to shift the focus from corrective services towards support and assistance at an earlier stage and towards prevention (Government of Finland, 2023). The government programme also claims that different chronic diseases can be prevented by reducing their risk factors.

The second programme is a range of quality recommendations to guarantee active and functional ageing and sustainable services in 2024–2027 (Social- och hälsovårdsministeriet, 2024) published in February 2024. This is an updated version of the quality recommendations to guarantee a good quality of life and improved services for older persons 2020–2023, published in 2020 by the Ministry of Social Affairs and Health. The updated quality recommendations from 2024 are primarily intended for decision-makers and managers in municipalities and local government as a tool for developing, evaluating, and implementing their services for older people. Some of the key themes in quality recommendations involve health promotion:

-

- promoting active ageing and the working careers and functional capacity of older people
- participating in voluntary work
- using technology in promoting well-being
- housing and age-friendly living environments

(Social- och Hälsovårdsministeriet, 2024).

The third policy document is the National Programme of Ageing 2023 (Finnish Government, 2023), which includes measures to prevent and treat dementia, for example, by creating lifestyle guidance in the well-being services counties, which were launched at the beginning of 2023 (Finnish Government, 2023). The prevention of memory symptoms and delaying the onset of dementia benefits from the FINGER model developed by the Finnish Institute for Health and Welfare (2024), a Finnish research and development institute working under the Ministry of Social Affairs and Health. The institute published a report in 2023 providing views on the state of the national memory care pathways (Pennanen, 2023). The memory service pathway model seeks to enhance the prevention of dementia symptoms, develop the early detection of dementia, improve access to services, and describe good practice in effective and seamless service provision solutions after diagnosis. The key principles are the promotion of brain health, having low-threshold services for early identification, diagnostics and timely access to treatment, and care and services based on the individual needs.

The primary guideline for good praxis is the national care guideline on memory disorders updated in December 2024. Furthermore, the elderly services are regulated by law in Finland. The key piece of legislation is the Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons. It is frequently referred to as the Act on Care Services for Older Persons. This law was prepared to follow up the quality of services previously set in recommendations.

Åland Islands

Åland is a self-governing region of Finland. Åland follows Finnish law in some areas like state taxation and customs but has the right to pass legislation in most other areas. Examples of areas important for public health policy are local government, healthcare, the environment, culture and education.

Åland has launched a Public health strategy in 2023, Folkhälsostrategi för Åland 2023–2030 (Ålands landskapsregering, 2023). This strategy serves as a framework for identifying and prioritising specific health promotion and prevention measures. Another strategy document on Åland is the political programme for senior citizens, Ett äldrevänligt Åland 2023–2030 to prepare for, and manage, the challenges that come with an ageing population. In addition, there is an action programme for 2024–2027 adopted in February 2024. One of its measures involves reviewing and revising the governing documents that apply to older adults and elderly care. The current guidelines for dementia care (Ålands landskapsregering, 2012) will be reviewed in 2024–2027. The public health strategy in Åland is a framework that covers all areas of health. There is also a section on dementia, which extends the prevention of dementia to cover the wider preventive work at all ages.

Legislation and regulation

Structural measures with legislation and regulation at the national level allow us to cite some examples of regulating education, physical activity, smoking, alcohol, and age-friendly town planning in the Nordic countries.

School system

The Nordic countries have pursued many reforms that should be maintained and protected, such as the educational system. In the Nordic countries education is free and publicly funded. The educational system is underpinned by the tenet that everyone has the same education opportunities, regardless of the socioeconomic status (Statistia, 2024).

Tobacco

The Norwegian tobacco control policy has been developed over a number of decades, and the Norwegian Tobacco Act has been revised numerous times (Helsedirektoratet, 2023). In 2004, Norway introduced a successful smoking ban, preventing people from smoking in public buildings such as cafes and restaurants. In 2004, only 45% of daily smokers were positive about this practice, while the percentage among non-smokers was 84% (Helsedirektoratet, 2023). Attitudes have changed rapidly after these measures were introduced. The other Nordic countries soon followed suit. In Sweden, smoking was restricted in restaurants, cafes, bars, and nightclubs in 2005.

Physical activity

Legislation can affect the power of prevention measures in various ways. Finnish legislation contains provisions on the promotion of sports: the law regulates the responsibilities and cooperation of the state administration and the municipalities' and the state's sports funding (FINLEX, 2015). Iceland also has a fundamental sports act regulating the funding and responsibility in sports (Government of

Iceland, 1998).

Alcohol

The Nordic alcohol policy has traditionally built on three key pillars: limited private profit interest, regulating access to alcohol, and high prices and taxes. This approach has sought to reduce alcohol consumption at a population level to minimise alcohol-related harm. Extensive research shows that these policy measures are both effective and cost-efficient, significantly strengthening public health and reducing negative societal impacts (Babor, 2023). Nordic countries – Finland, Norway, Sweden, Iceland, and the Faroe Islands – have state-owned alcohol retail monopolies, such as Alko in Finland (est. 1932), Vinmonopolet in Norway (est. 1922), Systembolaget in Sweden (est. 1955), Vínbúðin in Iceland (est. 1922), and Rúsdrekkasøla Landsins in Faroe Islands (est. 1992). These monopolies remove financial incentives from alcohol sales and maintain strict controls. They maintain a limited number of outlets, enforce strict age controls, and refrain from product marketing. Denmark, however, is an exception in the Nordic region with a more lenient alcohol policy (Rømer Thomsen et al., 2024). Although it has taken steps towards stricter regulation in recent years, such as raising the age limit for purchasing milder alcoholic beverages from 16 to 18, Denmark still has a more relaxed stance compared to its Nordic neighbours. Challenges faced by the alcohol monopolies include the rise of grey online markets, declining public support, and political pressures to liberalise legislation, potentially compromising public health for economic interests (Lindeman, 2024).

Practice

The actual health-promotive and preventive measures for better brain health and to avoid dementia are carried out in practice at the national, regional, and local levels. The local levels include municipalities, voluntary organisations, and healthcare centres, though this varies according to how the system is organised in each country. As many of the risk factors for dementia also apply to the prevention of other chronic diseases and concern public health, it has not been possible to obtain a complete, detailed overview of all measures against the risk of dementia. The recommendations in the WHO guidelines on risk reduction of cognitive decline and dementia also include measures at a local level to meet the varying needs (WHO, 2022). There is thus a lot of local variation and initiatives.

Practice at national level in the Nordics

This section highlights national initiatives in the Nordic countries with some country-specific examples at the structural level. Barriers are covered in the subsequent section.

Awareness campaigns

Campaigns from Iceland, Finland, and Denmark show how initiatives by governments or non-governmental organisations in the Nordic countries focus on raising public awareness of healthy lifestyles and brain health.

To increase public awareness about the impact of lifestyle on health in old age is often a practice at a structural level. One such example of prevention comes from Denmark. In 2021–2023, the Danish Alzheimer Association conducted an awareness campaign called Hjernesund. This was a public education campaign on dementia risk factors and preventive lifestyle initiatives to raise awareness of the benefits of a healthy lifestyle on brain health among the public.

The Icelandic initiative, Health Promoting Communities, strives to raise awareness of healthy ageing, and is part of the Good to Grow Older initiative by the Government of Iceland and the Ministry of Health. The campaign's main goal is well-being for all. It is a systematic effort working right from the knowledge-gathering phase and goals creation to action plans and implementation. The initiative has a multisectoral steering group at the national level and is a collaboration across all levels of society. Health Promoting Communities aims to increase public knowledge of the importance of health promotion, togetherness, and communication between generations.

In 2023, the Finnish National Brain Health Programme was launched by the Finnish Brain Association (2023). A wide range of organisations collaborate to implement practical measures to build towards a sustainable society that supports brain health. The Finnish Brain Federation coordinates the planning and implementation in cooperation with age-group specific coordination partners, covering children and young people, people of working age, and seniors. The National Brain Health Programme is planned to be part of a wider effort and supplements existing practices.

Public health guidance and information

Spreading information and knowledge about preventive lifestyle habits for healthy old age is also important at a national level. In Norway, the helsenorge.no by Norwegian Directorate of health, and the Norwegian Institute of Public Health are central sources for the public to learn about health promotion. In addition, the Norwegian National Centre for Ageing and Health (2024) has just published a new website about dementia prevention. There is also a new initiative in Sweden by the

Swedish Dementia Centre and the Fingers Brain Health Institute, which are developing the FINGER ABC platform. The upcoming FINGER ABC is a measure at national level, with the public as the target group. The goal is to provide information to the public about preventive lifestyle changes for better brain health. The FINGER model focuses on five risk-reducing factors (physical activity, healthy food, mental stimulation, social activities, and monitoring cardiovascular risk) every day to prevent dementia and cognitive decline. Finland also has a brain training website which guides towards brain-healthy routines and lifestyle changes through various activities (Muistipuisto, 2024).

Furthermore, the Danish public can find information about primary prevention of dementia at the Danish Dementia Research Centre (Nationalt Videncenter for Demens, 2024). The website offers easily accessible information about physical activity for the public in Denmark. Information about healthy lifestyle recommendations is also easily accessible in Finland. For example, the government has issued nutritional recommendations for older people (Terveyden ja hyvinvoinnin laitos, 2020), and mobility and exercise recommendations for the elderly (Äldreinstitutet, n.d.). In addition, non-governmental organisations of chronic diseases such as the Finnish Brain Association and the Finnish Diabetes Association provide information on well-being and healthy lifestyles.

Practice at local level in the Nordics

This section describes the practice at local levels for the Nordic countries with some country-specific examples at the individual level.

Voluntary organisations and NGOs

Primary prevention of dementia in the Nordic countries includes a wide range of measures implemented by municipalities and voluntary organisations. For example, the Norwegian Health Association is a voluntary organisation that is central in offering professional advice and activities at a local level. The Alzheimer Society of Finland is an NGO with funding from the Ministry of Social Affairs and Health and is the main non-governmental dementia organisation in Finland. In addition to supporting people with dementia diseases and their caregivers, the society works on promoting brain health. Finland has a wealth of brain training groups, such as Memory for Health, which promotes memory health in the Ostrobothnia region through voluntary activities, information dissemination, group activities, cognitive training, and collaboration. In Denmark, the Danish Alzheimer's Association had a public education campaign on dementia risk factors and preventive lifestyle initiatives in 2021–2023. There were free online webinars with experts in dementia and prevention, and a Brain Health online test with personalised feedback and counselling. Similar voluntary organisations also exist in Sweden and Iceland (the Dementia Association in Sweden and the Alzheimer Association of Iceland). Voluntary organisations in all the Nordic countries offer many different options at

the local level for the entire population. Examples include different types of social networks, healthy lifestyle follow-up, exercise and training, or lifestyle guidance. Primary prevention also includes training healthcare personnel to improve the quality of care, which is a major focus throughout the Nordic countries.

Table 3. *Dementia organisations in the Nordic countries.*

Country	Organisation	Link/Webpage
Norway	Norwegian Health Association	nasjonalforeningen.no/
Finland	Alzheimer Society of Finland	www.muistiliitto.fi/en/frontpage
Denmark	Danish Alzheimer Association	www.alzint.org/member/alzheimer-foreningen/
Sweden	Dementia Association in Sweden	www.demensforbundet.se/
Iceland	Alzheimer Association in Iceland	www.alzheimer.is

The role of municipalities and healthcare regions

The municipalities play a central role in adapting and implementing preventive health solutions.

Municipalities are required to provide health-promoting and preventive health services to the population in Norway. Serving the municipalities, Healthy Life Centres are a recommended way to organise such health services (Helsedirektoratet, 2024). A Healthy Life Centre is an interdisciplinary primary healthcare service which offers measures for people who need support to change their health behaviour and to cope with health problems (Helsedirektoratet, 2024). Healthcare centres have a patient-centred approach in strengthening the individuals' control of health. Healthy Life Centres play a valuable role in promoting health and well-being among the population.

In Sweden, healthcare centres play a similarly crucial role in providing lifestyle advice. These centres are primary care facilities that provide a wide range of healthcare services. They are an integral part of the Swedish healthcare system, which is known for its universal coverage and high standards of care. One key focus is prevention, including such services as vaccinations, health screenings, and

lifestyle counselling to help patients maintain good health and prevent the development of chronic diseases. Preventive care is seen as a crucial aspect of healthcare in Sweden, as it not only promotes individual health and well-being but also helps to reduce the burden on the healthcare system in the long term. Overall, Swedish healthcare centres are crucial in promoting the health and well-being of the population through their focus on prevention, early intervention, and comprehensive care. A Swedish example of health promotion in a vulnerable population comes from the local hospital in Angered. The LeVa-clinic is part of the Public Health Unit at the Angered hospital and aims to find new ways of providing health support and life-style counselling to residents in the north-east of Gothenburg, a part of the city with low socioeconomic status and a shorter lifespan than average. The clinic gives guidance and personal advice on food, alcohol, physical activity, and tobacco. The clinic also offers monitoring of blood pressure, blood lipids and blood sugar free of charge. The model that constitutes the LeVa-clinic has been tested and evaluated in a pilot-project (Magnusson & Hedström, 2023).

In Iceland, the prevention of social isolation and its potential negative health effects are a major focus area. Iceland also has a lot of voluntary social and exercise opportunities for older adults.

A social and health-promoting measure in Iceland is the outdoor pools, known as *heitur pottur*. When you turn 67 in Iceland, the official retirement age, you get free access to swimming pools, which are run by the municipalities. This has been on offer for a long time and is extremely popular. There is also a social aspect involved: many visit the pool at the same time every week to meet friends, and strangers often engage socially.

Another successful measure maintained by large municipalities in Iceland are the indoor sports facilities that are kept open during the day and are used by the older adults for walking. This often takes place in groups, organised either privately or municipally. All Nordic countries have a range of municipal or private initiatives that involve physical activity and social gatherings for older adults.

The measures and services for people with intellectual disabilities vary a great deal. In Norway, such services include exercise and fitness measures, winter camps, sports teams, walking groups, and social groups. There is room for improvement, however, in primary prevention for this subgroup.

Targeted efforts for risk groups can have a significant effect. For example, of the 290 municipalities in Sweden, 50 have common challenges among their residents aged 65+ who have a low socio-economic status. The Swedish Association for Local Authorities and Regions has initiated national collaboration and a health promotion approach for and with municipalities which are characterised by short life expectancy, low socio-economic status, and a large share of inhabitants over 65 years.

The Danish intervention model – Our Healthy Community – aims to offer an integrated approach towards health promotion and disease prevention in municipalities (Aadahl et al., 2023). The goal is to provide new tools to improve the residents' health and well-being. The model involves political processes, residents, and professional stakeholders at all levels in shaping their own communities and municipalities (Aadahl et al., 2023), and helping individuals make sustainable lifestyle changes.

Lifestyle interventions and secondary prevention

Intervention studies so far have shown a small effect of multifactorial interventions on short-term cognitive impairment measured by neuropsychological testing. However, there is a lack of evidence on the effect of implementation of preventive measures on dementia at all, or cognitive function over a longer period. The fact that we do not know the effect of preventive measures on an individual level creates a great deal of uncertainty and makes communication about the prevention of dementia challenging.

Secondary prevention includes measures getting general practitioners and other healthcare professionals to follow up on those who have developed risk factors or already have dementia. Other examples are learning centres, wellness centres, and other bodies in municipalities and specialist health services. In a Danish initiative, the focus is on improving the physical exercise of people with dementia, supported by evidence from an ADEX study where moderate to intense exercise reduced neuropsychiatric symptoms (Hoffmann et al., 2013).

Hjärnkåren is a new day activity in Lund municipality, Sweden, for people with reduced cognitive impairment or with a cognitive diagnosis at an early stage who do not have nursing interventions from home care. Hjärnkåren is based entirely on the FINGER model and offers activities and lectures to prevent cognitive decline. The FINGER model leans on scientific evidence from the FINGER study and shows that simultaneous lifestyle measures in five areas – healthy food, physical activity, cognitive training, social activities, and cardiovascular factors – can help prevent and delay the development of cognitive decline. The project started in November 2023 and currently has 24 active participants, offering them such activities as cognitive training in the form of memory games, hydrobic, dance, a walking group, allotment cultivation, a training group, and a painting group. There are also lectures according to the five FINGER model. The aim is to contribute to improved brain health, quality of life, and increased independence according to the five FINGER model.

Age-friendly cities and communities

In recent years, the concept of age-friendly town planning has gained momentum in the Nordic countries. With an increasing older population, there is a growing recognition of the need to create urban environments that are conducive to healthy

ageing and promote social inclusion for all age groups. Age-friendly Norway is one such example, a concept that aims to create a society where people of all ages can live fulfilling and active lives (Senter for aldersvennlig Norge, 2024). This involves ensuring that older adults are included and valued in all aspects of society, from access to healthcare and social services, to opportunities for leisure and social activities. This shift in perspective has led to initiatives such as improving public transportation accessibility and creating more green spaces for recreational activities. Additionally, there is a greater focus on making public buildings and facilities more age friendly. The Nordic network for age-friendly cities and communities is a collaborative initiative focused on creating age-friendly environments for older adults in the Nordic countries (Nordic Welfare Centre, 2024). The network aims to promote active ageing, social inclusion, and a high quality of life for older adults. By prioritising the needs of older residents in town planning, Nordic countries are taking proactive steps towards creating more inclusive and liveable communities for people of all ages.

Evidence vs practice

The results presented in this section include recommendations based on dialogues in workshops, interviews, on-line meeting, and other meetings between August 2023 and April 2024.

Existing evidence on the prevention of dementia risk is based on research mainly during the last 10–15 years. The Lancet Commission on Dementia Prevention, Intervention and Care has suggested modifiable risk factors for dementia (Livingston et al., 2020), and the recommendations for dementia prevention have been discussed in the WHO guidelines (2022). The Lancet model shows how lifestyle improvements have a significant effect on brain health during the life course, while the WHO provides evidence-based recommendations on lifestyle behaviours and interventions that can delay or prevent cognitive decline and dementia. Previous chapters provide examples of measures in the Nordic countries for the prevention of dementia both at local and national levels and are in line with existing evidence and recommendations. Due to a broad and comprehensive approach to dementia prevention, it has not been possible to provide a complete overview of measures. The information collated in this report reveals some areas for improvement.

The areas for improvement, or the gap between the evidence/knowledge base and the implementation of practice and measures by decision-makers and politicians seem to be both local and structural. Dementia prevention is an increasing global public health priority (WHO, 2022). However, the gap might exist because the evidence is quite new (last 10–15 years), while implementation of theory and evidence into policy and strategies takes more time. The recent report by Alzheimer's Disease International (2024) points out the need for a long-term strategy. The report argues that the member states need to agree to a 10-year

extension to the Global Action Plan to continue the work. A recent review of individual and population-based research of dementia prevention concluded that there is emerging recognition that the primary prevention of dementia, and the associated evidence, needs to consider population-level approaches (Walsh, 2023).

The evidence we have for the prevention of risk factors for dementia also has some limitations. Firstly, more evidence is needed to determine the impact that interventions on the risk factors have on the outcomes of MCI or dementia incidence (WHO, 2019). The FINGER study was the first randomised control trial to be published that demonstrates that changing several lifestyle factors can slow down cognitive decline in later life (Ngandu et al., 2015). The FINGER-study has since expanded to become a large international network (Finnish Institute for Health and Welfare, 2024).

Existing evidence is mainly based on results from a group level, which makes it difficult to recommend preventative measures to prevent disease at an individual level. The individualised prevention of dementia must build on existing knowledge, be evidence-based, and show long-term results. Life course epidemiology in research might provide the evidence we need to design preventative strategies to decrease the risk of dementia. We also need intervention strategies that target risk factors at specific timepoints during life (Wagner et al., 2024). A previous Icelandic study – Age, Gene/Environment Susceptibility-Reykjavik or AGES Reykjavik – used data to investigate whether cognitive factors related to cognitive performance were associated with the development of dementia. The results support that promoting high cognitive reserve throughout one's life is important in reducing the dementia risk (Valsdottir et al., 2023).

> **"We need a deeper understanding of how dementia develops on an individual level in order to obtain clearer evidence for how to prevent dementia."**
>
> **Nordic project reference group in Helsinki, 2024**

Secondly, most research is conducted in high-income countries rather than low-income countries. It might also be necessary to have country-specific information about the potential for dementia prevention due to local differences. A Danish epidemiological modelling study looking at the potential for preventing dementia in Denmark (Jorgensen, Nielsen, Nielsen, & Waldemar, 2023), indicated that risk factors such as later-life physical inactivity, hearing loss, midlife hypertension, and obesity are associated with a substantial proportion of dementia cases in Denmark. Moreover, even a partial reduction of these four risk factors could potentially have a considerable impact on the risk of developing dementia and the further prevalence of dementia in Denmark. Country-specific knowledge of dementia prevention is also important in the development of national lifestyle

intervention strategies that are acceptable to the public.

According to our reference sources, there seems to be a substantial gap between the available evidence and practices in dementia prevention among people with intellectual disabilities. All evidence about dementia prevention among people with intellectual disabilities indicates that a new strategy is needed, with measures aimed at reducing the risk of dementia. Our reference sources have specified that it is time to put this target group on the agenda and that this assessment is a good start. This is a relatively large sub-group of people in the Nordic region with a high risk of developing dementia. Little research has been done on the prevention of dementia among people with intellectual disabilities or even people with Down syndrome (Strydom et al., 2018).

There has emerged a stronger interest in the issue but there must also be a greater awareness of lifestyle changes that could potentially have a preventive effect for this group. There are also certain challenges in that people with intellectual disabilities may find it hard to understand and explain their own dementia symptoms, and that healthcare personnel may have insufficient expertise in this area.

The project reference group identified four areas for improvement. The barriers and areas for improvement are discussed in the next section.

Barriers and opportunities

This section summarises the key barriers and opportunities for the implementation of preventative measures for dementia. The barriers or areas for improvements identified by our reference participants, obtained from interviews and the workshop, included four main areas:

1. Lack of public knowledge.
2. Challenges reaching out with health information to different subgroups.
3. Lack of financing and resources for preventative initiatives.
4. Competing healthcare system priorities.

The two last barriers/areas for improvement are discussed in the next section, which deals with the importance of organisational aspects.

The lack of knowledge about dementia prevention might be a barrier to the implementation of measures for the prevention of dementia in the public. In 2021 in Denmark, 54% of the public believed that they lacked the necessary knowledge to make healthier lifestyle changes (Van Asbroeck et al., 2021). One representative of the expert group pointed out that many people in Denmark do not have sufficient knowledge of the topic. An 18-month mass media campaign in Denmark between 2020 and 2021 did not increase overall awareness of dementia risk reduction but

was associated with more willingness to take action to improve lifestyle and brain health (Paauw et al., 2024). A study from Norway found major gaps in existing knowledge, particularly for cardiovascular risk factors such as hypertension, coronary heart disease, hypercholesterolemia, and metabolic factors such as diabetes and obesity in a randomly selected subsample of the Norwegian population (Kjelvik et al., 2022). An Icelandic survey investigated basic knowledge about dementia prevention and found that only 8 % of the people identified a low level of education as a risk factor (Jonsdottir et al., 2022). This study demonstrated the importance of a whole-life focus in dementia risk reduction and in public health campaigns (Jonsdottir et al., 2022).

The Nordic representatives identified some key factors that are important in all societies, namely making knowledge available to different parts of the population and ensuring that the information and these methods are knowledge-based. Since the societies differ slightly, the strategies need to be tailored to the needs of each country and its health services as recommended in the WHO guidelines on risk reduction of cognitive decline and dementia (WHO, 2019).

Challenges reaching out with health information to different subgroups might also be a barrier/area for improvement for the prevention of dementia in the public. Our society has different groups of people who have different starting points for understanding about dementia prevention, for example. These groups can include immigrants, minority groups, people who are socially isolated or have low health literacy, those with a lower level of education and/or income, or people with intellectual disabilities. A barrier is reaching out to them with information and knowledge about prevention. One of the Nordic representatives said that we need good knowledge of methods and how to adapt information to reach different groups in society.

Risk factors of dementia are not equally distributed in our society. The fact is, as for other risk factors, that some groups in society have a lower ability to adopt a healthier lifestyle. There is huge potential for primary prevention measures for different subgroups, including raising awareness of the importance of lifestyle habits and implementing changes at an earlier stage. Another measure is to ensure the provision of hearing aids for those who need them, and to provide education and tailored instructions that could benefit these individuals in the long term. More emphasis on increasing cognitive reserve may, in some cases, reduce and perhaps postpone the development of dementia. Barriers include making the information comprehensible to the recipient, as well as a lack of human resources to improve the health skills among this group. Knowledge is essential for implementing appropriate and tailored measures and methods for ensuring that recipients understand the importance of changing lifestyle habits and their potential for preventing dementia.

The Nordic representatives discussed the opportunities for reaching minority or low-literacy groups with information about health promotion. They suggested

health advocates or health ambassadors to identify people within smaller communities.

Importance of organisational aspects

During the Nordic–Baltic workshop, participants discussed the significance of organisational elements, such as policies, competencies, resources, management, governance models, and organisational affiliations in facilitating the implementation of preventive measures to reduce the risk of dementia. Nordic representatives highlighted both similarities and differences among countries regarding these organisational aspects in dementia prevention. They identified difficulties addressing the question of organisational aspects due to the potentially unique and country-specific nature of organisations and management models.

Government support is crucial, particularly at the highest levels. Knowledge-based policy briefs and guiding principles are needed especially when it comes to financial support and resources. A lack of resources and clear political priorities were recognised as key barriers to implementing preventative measures effectively. It is essential for governments to acknowledge and prioritise dementia, as highlighted by Alzheimer's Disease International (2024). Politicians need to allocate resources towards preventative measures of risk factors for dementia and NCDs, because the treatment of dementia and NCDs consumes significant resources. In the European Union, NCDs are estimated to take 80% of healthcare resources, with only 3% allocated to prevention (European Commission, 2022). Legal support structures should be integrated across sectors, including health, education, the labour market, and more. Additionally, competence is central for preventative services, making guidance crucial. Lastly, more stable funding is required for volunteer work in the third sector, while enhancing collaboration with voluntary organisations in local preventative efforts.

A focus on system-level factors might be necessary to understand the big picture of dementia prevention. Researchers have found that a modifiable structural-level factor and experiencing worse healthcare quality were related to an increased risk of dementia in the next 12 years (Aravena et al., 2024). In Denmark, a publication about dementia prevention concluded that the results should inspire policymakers in Denmark to prioritise public health policies and intervention focuses on the primary prevention of dementia (Jorgensen et al., 2023). The study estimated the risk-prevention potential based on country-specific data on risk factor prevalence, and showed that physical activity, hearing loss, hypertension, and obesity could be primary targets for dementia prevention in Denmark. Since the societal costs of dementia in the Nordic countries are high (Jonsson et al., 2023), it is all the more important to aim at how dementia prevention can reduce costs to society. Preventive legislation at the municipal level may be effective, such as the public health acts have shown in Norway and Finland. The Healthy Life Centres service in Norway is organised in the municipalities and is a recommended way to organise

such health services. The legal support structures should also include strengthening the integration of prevention in care.

The Nordic project reference group concluded that implementation, practice, maintenance, and evaluation should be anchored at the highest level, and at all levels. The type of governance model affects the power of the implementation of risk reduction at all levels. A population-level approach, such as a national campaign, must be organised and supported at the highest level. Legislation should ensure that it is easy for individuals to make healthy choices. A notable example from Norway is the successful smoking ban, which prohibits smoking in public buildings. This campaign resulted in a decrease in the number of smokers and demonstrated how a country can mobilise resources to promote overall health. Implementing similar laws that are both affordable and acceptable to all is crucial.

> **"However, when you ask if you should regulate or motivate, the thing is that you need all instruments working at the same time. When you have the promotion initiatives you must have some supporting structures in the society as well."**
>
> Nordic project reference group in Helsinki, 2024

To sum up, the reference group recommends ensuring that national and population-oriented strategies align with local prevention efforts in organisational aspects. It is essential to develop a comprehensive prevention strategy across all sectors at the local level, while also enhancing prevention services for high-risk groups.

Conclusions

This concluding section gives recommendations to leverage and develop evidence-based and effective measures in the field of dementia prevention in the Nordics.

The fact that there are common lifestyle factors connected to prevention and risk reduction of many diseases calls for a holistic approach to dementia prevention. Considering the available research, the Nordic countries need a long-term strategy for dementia prevention clearly integrated into the work on preventing other non-communicable diseases.

Some areas of improvement in implementing measures were identified in the mapping, including the lack of awareness in the population, both overall and in more vulnerable groups. In addition, implementation of practice should focus on making healthy lifestyle choices available for everyone, promoting brain health and supporting cognitive functionality during the whole lifespan.

Organisational aspects are central in supporting the implementation of dementia-preventive measures. Taken together, there is a need for a comprehensive approach in the municipalities, good plans locally that act together with legal support structures. We need a broad prevention strategy in all local sectors, while also strengthening the provision of prevention among high-risk groups. Examples given in the report are high-risk municipalities or dementia prevention in subgroups, such as for persons with intellectual disabilities, minority groups, those with lower income levels, or people with low health literacy. The unequal distribution of social determinants of health conditions in which people are born, grow up, live, work, and age are also important factors in the regulation and legalisation efforts at a population level.

A formalised Nordic–Baltic expert network can contribute to continued knowledge sharing between the Nordic and Baltic countries on dementia prevention. A common focus on development in this novel area can leverage dementia prevention in the Nordics and Baltics in the coming years.

Recommendations for dementia prevention in the Nordics

Interaction between the prevention of dementia and the prevention of non-communicable diseases

- Multiple concurrent risk factors may have a bearing on preventive measures. Common risk factors for heart and brain diseases and all NCDs are the driving force behind preventive measures in Nordic health services nationally. These measures are based on the policy and strategies described in the results section. There appears to be a general approach that links to these broader recommendations. All Nordic countries have policy documents for NCDs, and all of them take a broad approach to dementia prevention. Continued health policies in areas such as education, tobacco, and alcohol in the Nordic region are crucial to promoting healthy lifestyles among citizens.

- Although all Nordic countries have strategic dementia plans, dementia prevention is tackled to varying degrees. Primary prevention is less common in the strategies than secondary and tertiary prevention. So far, none of the Nordic countries has used knowledge/evidence for dementia risk reduction as the basis for a systematic prevention strategy. National guidelines for following up on diseases that pose a risk of developing dementia, such as diabetes and cardiovascular disease, are important secondary preventative measures. In the future, the focus should be on synergies with established policy and on thinking at the population level also in dementia prevention.

- Strategies need to build on existing structures and the prevention of other NCDs. Dementia prevention must be clearly integrated into the prevention of risks for NCDs. It is both synergistic and effective to promote heart and brain health within the same structures. Specific risk factors for dementia such as hearing loss and mental under stimulation should be added into the provided information and guidelines.

- Prevention of dementia among people with intellectual disabilities is not specifically mentioned in any Nordic government plans or strategies. Instead, the issue appears to come up under public health and the prevention of NCDs. There must be a greater focus on this group if they are to receive the same care as everyone else, and a greater awareness of lifestyle changes that might have a preventive effect for this group. This includes healthy lifestyle counselling to combat obesity and providing a good education, physical activity, healthy food, and social inclusion. Introducing descriptions of functional consequences in various plans and strategies for the prevention of dementia may also be a way of ensuring the inclusion of all groups and appropriate adaptations.

- In the same way that dementia must become a consideration in national public health initiatives, dementia prevention must be clearly integrated into the prevention of risks for NCDs.

How can the Nordic countries support each other?

Robust co-operation networks already exist between the Nordic countries. One of the Nordic representatives pointed out the importance of maintaining the existing networks in Nordic co-operation. The future of Nordic co-operation to reduce inequalities in health is outlined in a Nordic report.

> **"In the Nordics, public health has developed positively for many years … A major challenge for Nordic welfare is all the chronic diseases that concern lifestyle."**
>
> **Bo Könberg (2014)**

This is also the case in the prevention of dementia, where efforts are required to leverage the potential for reducing the risk of chronic diseases in old age, such as dementia. We need cross-country research in the Nordic countries, such as research on dementia prevention and Down syndrome. The Nordic countries need to design indicators to compare the development of dementia, such as its prevalence and incidence across the Nordic region. The field of dementia prevention is actively sharing experiences and knowledge to promote rapid development. The Nordic countries, with their comparable populations, are closely aligned in this effort.

During the project on dementia prevention in the Nordics, Nordic and Baltic experts shared topical knowledge and examples of current preventive measures and to compile working material for this report. The meetings have provided new insights, valuable contacts, and established an informal Nordic network in this new area of public health and dementia policy. A suggestion from the network is to continue the collaboration also after the report has been published to leverage the momentum that this Nordic project has brought about. Continued co-operation of the Nordic–Baltic network for a limited time could further promote dementia prevention in the Nordic and Baltics countries in the coming years.

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Appendix 1. Interview questions

Questions that apply to your country:

Evidence

1. What evidence on dementia prevention exists today that is used to support policy and practice for dementia prevention measures?

2. What do we need from new research?

Policy

3. Can you tell us about dementia prevention work in ____ at a political level? What is ___ approach to the prevention of dementia, specifically aimed at the disease or more generally as for other overarching public health policy goals to prevent chronic diseases (non-communicable diseases)?

4. Which basic plans govern the dementia prevention work?

5. What existing policies, structures and practices for the prevention of chronic diseases can be used for the prevention of dementia and vice versa?

6. How do you assess the focus in the work on the prevention of dementia in political planning, considering the large societal costs it will bring us as a society in the long term?

7. What is the role of dementia prevention issued by international s and voluntary organisations in policy and practice in your country? E.g. WHO, EU, Alzheimer's Disease International, etc?

Practice (measures)

8. Has _____ focused on prevention measures at an overall national level or at a local municipal level, or both? Please give examples of this.

9. Do you have examples of prevention measures that appear to have been successful in Norway? Explain how they have been successful.

10. What do you think are the most central barriers for implementation of good prevention measures?

11. From theory to practice: How to implement prevention measures in a good way? Is prevention work put into practice in line with the research basis we have?

Questions that apply to the entire Nordic region:

12. What is the importance of organisational aspects (such as policy, competence, resources, management, governance model, organisational affiliation) in supporting the implementation of preventive measures to prevent dementia?

13. In what way can the Nordic countries support each other to further develop preventive work against dementia?

14. What should future interventions focus on? Which risk factors? In which population? In what way?

15. What do you think is the key to success in preventing dementia in the years to come?

Appendix 2. List of interviewees

	COUNTRY	NAME	ROLE/ORGANISATION	NETWORK
1	**NORWAY**	Frode Kibsgaard Larsen	Special adviser/research fellow, Ageing and Health, Norway Coordinator of the Nordic subnetwork on Dementia and intellectual disabilities	The Nordic subnetwork on Dementia and intellectual disabilities
2	**ICELAND**	Jon G. Snædal	Medical doctor Geriatric clinic, Associate Professor, responsible for the Icelandic National Strategy on Dementia back in 2019.	Former member of the Nordic Dementia network
3	**SWEDEN**	Michaela Prochazka	Programme Officer, Coordinator for elderly affairs National Board of Health and Welfare in Sweden, Department of Analysis, Stockholm	Member of the Nordic Dementia network Project reference group
4	**FINLAND**	Pia Pulkkinen	Specialist, Finnish Institute for Health and Welfare (THL)	Member of the Nordic dementia network Project Reference group
5	**DENMARK**	Niels Kasper Jørgensen	Expert, Neuropsychologist, Danish Dementia Research Centre	Project Reference group
6	**DENMARK**	Kirsten Groth Willesen	Senior Consultant, Danish Health Authority	Member of the Nordic Dementia network

7	**SWEDEN**	Eva Flygare-Wallen	Researcher, Karolinska Institutet	Member of the Nordic subnetwork on Dementia and Intellectual disability
8	**NORWAY**	Berit Kvalvaag Grønnestad	Project manager Demensplan 2025, Department of health and care services, Norwegian Directorate of Health	Member of the Nordic Dementia network

Appendix 3. Workshop tasks: Nordic roundtable meeting on prevention of dementia

Questions discussed at Nordic–Baltic roundtable meeting and workshop January 2024

1. What are the barriers and opportunities for the countries to include a preventive perspective on dementia.
2. Describe the advantages and disadvantages of including dementia prevention in over-all public strategies for prevention of non-communicable diseases.
3. Describe the advantages and disadvantages of including dementia prevention in dementia strategies.
4. Discuss the importance of organisational aspects in implementing preventive measures in dementia. Who should be responsible for implementation and practice, maintenance, and evaluation? What societal structures can support implementation?
5. What is the key to success in dementia prevention in the years to come? Where will we stand in dementia prevention in 10 years?

Appendix 4. Nordic project reference group in Dementia Prevention

Participants of the Nordic project reference group in Dementia Prevention

First name	Last name	Organisation	Country
Erika	Boman	Åland University of Applied Sciences	Åland Islands
Elsa B.	Friðfinnsdóttir	Ministry of Health	Iceland
Kasper	Jørgensen	Danish Dementia Research Centre	Denmark
Teija	Hammar	THL Finnish Institute for Health and Welfare	Finland
Tiia	Ngandu	THL Finnish Institute of Health and Welfare	Finland
Gunilla	Nordberg	Swedish Dementia Centre	Sweden
Krista	Pajala	Muistiliitto ry/ Alzheimer Society of Finland	Finland
Michaela	Prochazka	Socialstyrelsen, National Board of Health and Welfare	Sweden

Pia	Pulkkinen	THL, Finnish Institute for Health and Welfare	Finland
Tone	Torgersen	Norwegian Health Association	Norway
Anne Rita	Øksengård	Norwegian Health Association	Norway
Madelene	Johanzon	Region Värmland	Sweden
Jesper	Ekberg	Swedish Association of Local Authorities and Regions	Sweden
Berit	Kvalvaag Grønnestad	Norwegian Directorate of Health	Norway

Observers at the Roundtable-meeting and workshop, Baltic countries			
Piret	Purdelo-Tomigas	Dementia Competence Centre, Ministry of Health	Estonia
Madara	Saka	Ministry of Health	Latvia
Daina	Mezecka	Nordic Council of Ministers' Office	Latvia
Marius	Ciurlionis	Ministry of Health	Lithuania

Appendix 5. Nordic project online meeting March 2024: Questions for discussion

This Nordic online meeting was held in Scandinavian languages and the discussion points below are presented as original in Swedish.

1. Ni har fått beskrivningarna av policy i de olika länderna-vilka likheter och skillnader ser ni mellan länderna på olika nivåer (nationellt/regionalt/lokalt?
2. En barriär för det demensförebyggande arbetet i Norden är att nå ut med kunskap till alla, särskilt till utsatta grupper. Har ni några rekommendationer om strategi för hur man bäst arbetar förebyggande i utsatta grupper?
3. Vilka stödstrukturer, resurser och aktörer behövs för att övergripande strategier på policynivå kan förverkligas i demensförebyggande praktik nära medborgaren?
4. På vilket sätt kan de nordiska länderna stötta varandra i det demensförebyggande arbetet?

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