Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Three Nordic countries responding to COVID-19 – Eldercare perspectives

Merja Rapeli a, *, Johan Carlstedt b, Ragnheiður Hergeirsdóttir c, Halldór S. Guðmundsson c, Carin Björngren Cuadra d, Ilona Hatakka e

a Ministry of Social Affairs and Health, P.O.Box 33, 00023, Helsinki, Finland
b National Board of Health and Welfare, SE-106 30, Stockholm, Sweden
c University of Iceland, Faculty of Social Work, Sæmundargotu 10, IS-101, Reykjavík, Iceland
d Malmö University, Department of Social Work, Ciaudelovagen 7, 205 06, Malmö, Sweden
e University of Tampere, Kalevantie 4, 33014, Tampereen Yliopisto, Finland

ABSTRACT

Comparative international studies show that about half of the deceased in the COVID-19 pandemic were persons living in institutional and residential eldercare. As seniors are the most affected age group, we aim to study if and to what extent the eldercare services were included in the National Pandemic Plans, and how they were included in the response during the first phase of the pandemic in Finland, Iceland, and Sweden. We use the CRISMART approach to crisis documentation and analysis in comparing national response to the pandemic for the eldercare sector. The method enables comparison of extraordinary crisis situations from the decision-making and policy-making perspective. We found that there were both similarities and differences in the preparedness of the three Nordic countries, as well as in how they responded to the pandemic. In all three countries the focus of the national responses framed the problem as a health and healthcare services’ problem. We also found value conflicts in the response between the value of protection versus social contact and self-determination and hence relating to the quality of eldercare. Keeping in mind the proportional increase of elderly people, care challenges, and future crises, we must strengthen the position of local social services within the emergency management systems to enhance disaster resilience and sustainability of our societies.

1. Introduction

The three Nordic countries, Finland, Iceland, and Sweden were not left untouched as the novel COVID-19 pandemic spread all over the world during the first half of the year 2020. The elderly was identified as a risk group at an early stage in January 2020 [1]. The World Health Organization (WHO) assessed the global situation of COVID-19 as a pandemic on March 11, 2020. Like many other European countries, these Nordic countries followed the guidance of WHO and the European Centre for Disease Prevention and Control (ECDC) in formulating national measures to deal with the virus, albeit to a differing degree.

The first COVID-19 case was confirmed in Finland on January 30, 2020, in Iceland on February 28, 2020 and in Sweden on January

Abbreviations: AISP, Association of Institutions and Service Providers in welfare services; CH, the Chief Epidemiologist Iceland; DCPM, Department of Civil Protection and Emergency Management Iceland; DH, the Director of Health Iceland; ECDC, the European Centre for Disease Prevention and Control; EM, Emergency Management; HSCI, the Health and Social Care Inspectorate; Sweden, IALA; Icelandic Association of Local Authorities, MH; the Ministry of Health Iceland, MSAH; Finnish Ministry of Social Affairs and Health, MSA; Ministry of Social Affairs Iceland, NBHW; the National Board of Health and Welfare Sweden, PHA; the Public Health Agency Sweden, NCIP; the National Commissioner of Police, PPE; Personal Protective Equipment, RAA; Regional Administrative Agency Finland, RHA; the Regional Health Agency, Iceland; SCCA, the Swedish Civil Contingencies Agency; THL, the National Institution of Health and Welfare Finland; WEA, the Swedish Work Environment Agency; WHO, the World Health Organization.

* Corresponding author.

E-mail addresses: merja.rapeli@gmail.com (M. Rapeli), carlstedt@eml.cc (J. Carlstedt), ragher@hi.is (R. Hergeirsdóttir), halldorg@hi.is (H.S. Guðmundsson), carin.cuadra@mau.se (C. Björngren Cuadra), ilona.hatakka@tuni.fi (I. Hatakka).

https://doi.org/10.1016/j.ijdrr.2022.103442
Received 17 July 2022; Received in revised form 9 November 2022; Accepted 9 November 2022
Available online 15 November 2022
2212-4209/© 2022 Elsevier Ltd. All rights reserved.
2020. At the end of August 2020, there was a great disparity between the three countries in the number of deceased from COVID-19 (Fig. 1 And Table 1). Comparative international studies show that during the first wave of the pandemic, about half of the deceased from COVID-19 were persons receiving residential care [2]; [13]. This is why we focus on residential care for the elderly in this study. We use the term eldercare to include both residential and homecare services, as well as home healthcare.

According to the literature, those primarily impacted by a crisis are those who under normal circumstance are already vulnerable. In many instances, these individuals have previously been involved with social services, such as the elderly, or persons with disabilities, and those exposed to domestic violence [8]; [4]; [9–11]. Pandemics are not an exception. In this study, focusing on eldercare, our aim is to study the preparations for and response to the pandemic during its initial phase in Finland, Iceland, and Sweden.

Our research questions are:

1. How were the care services for the elderly a part of the existing national pandemic plans in Finland, Iceland, and Sweden?
2. What kind of measures were taken in terms of legislation, instructions and steering guidance given to these services during the first phase of the pandemic?

Additionally, our aim is to identify the major differences in the measures taken in the three countries. To guide us in this comparison, we use a selected number of themes (see Methodology).

2. Organization of emergency management

Finland, Iceland, and Sweden have comprehensive systems of emergency and crisis management [12], possibly playing out differently in pandemics. In all three countries, authorities have a responsibility to prepare for emergencies on national, regional, and local levels. The local level plays a vital role. The municipalities are responsible for nearly everything that must be operational, even during emergencies. This includes eldercare, water supply, rescue services and schools. The governance system in the Nordic countries is unitary and not federal as for example in the USA and Germany. Legislation is done only in the national level in the Nordic countries which underlines the importance of national response to crises.

The respective national institution overseeing emergency management (EM) in Iceland is the Department of Civil Protection and Emergency Management (DCPEM), under the Ministry of Justice. In Sweden, the Swedish Civil Contingencies Agency (SCCA), under the Ministry of Justice, oversees emergency preparedness, and in collaboration with the county administrative boards may support the management of an incident in an otherwise decentralized system [13]. In Finland, the Prime Minister’s Office co-ordinates crises response to major national emergencies. At the same time each ministry oversees the response in its sector [14].

All three Nordic countries identified the pandemic as a threat in their national risk assessments. In all the three countries, it is the healthcare sector on a national, regional, and local level that leads the preparations for and response to a pandemic. In Finland, however, the Prime Minister and her office, along with the Ministry of Social Affairs and Health (MSAH), play an important role in the overall emergency management. In Iceland, it is the DCPEM. In Sweden, the government ministries are not involved in any operational decision-making or tasks, rendering a vital and to some extent operational role to autonomous authorities. During a health crisis, those would be the Public Health Agency (PHA) and the National Board of Health and Welfare (NBHW), under the ministry of Health and Social Affairs.
Social services and social work play an important role in mitigating, preparing and responding to various disasters [15]. However, previous studies show that the Nordic countries have chosen alternate paths regarding the social services’ role in emergency management. Iceland does not address social services specifically in its emergency management act, nor has it special guidelines for social services. Finland and Sweden specifically address social services in their legal frameworks. Finland and Sweden also give guidelines for social services’ preparedness planning, although in Sweden only limited guidance has been published since 2009 [12]. In 2019, Finland published preparedness planning guidelines for social and the healthcare sector.

However, the value of preparedness planning in general can be questioned. For example, Clarke argues that having a plan can be largely symbolic and planning does not lead to better preparedness. Preparedness plans’ function is to assure people that the uncontrollable can be controlled [16]; 16). A controversial argument is that even though preparedness plans can seldom be followed by the book in a crisis, the planning process improves the adaptive disaster resilience. One lesson learnt from an earthquake response in Iceland was that while a plan does not serve as an accurate recipe on how to act in an emergency, pre-disaster planning enables improvisation in an emerging and evolving crisis [17]; see also [18]; 208–213). Also, in addition to guiding the member states on how to conduct national risks assessments, the EU Commission acknowledges emergency preparedness where the objective is to reduce loss of life and build resilience [19].

3. Eldercare services in Finland, Iceland, and Sweden

In all Nordic countries, older people have the option of living in special accommodations if living at home is not feasible. However, the Nordic countries favor homecare over residential eldercare [20]; 28 [21]; 17) (Table 2). Homecare is provided according to individual assessment, and it varies between a few hours per month, up to several visits per day. There are various types of special accommodations for the elderly, from institution-like accommodations to more home-like services. Additionally, the level of care is up to 24-h services [20]; 23–28.).

In Finland and Sweden, the municipalities are responsible for financing and providing services for the elderly, even though parts of the services are provided by private providers [21]; 14–15). However, in Sweden, the regional counties provide medical support, mainly physicians and certain medical equipment for eldercare and other social services. In Iceland, the responsibility of eldercare is still largely symbolic and planning does not lead to better preparedness. Preparedness plans’ function is to assure people that the uncontrollable can be controlled [16]; 16). A controversial argument is that even though preparedness plans can seldom be followed by the book in a crisis, the planning process improves the adaptive disaster resilience. One lesson learnt from an earthquake response in Iceland was that while a plan does not serve as an accurate recipe on how to act in an emergency, pre-disaster planning enables improvisation in an emerging and evolving crisis [17]; see also [18]; 208–213). Also, in addition to guiding the member states on how to conduct national risks assessments, the EU Commission acknowledges emergency preparedness where the objective is to reduce loss of life and build resilience [19].

4. Method and material

The article draws upon the former Centre for Crisis Management Research and Training (CRISSMART)\(^1\) approach regarding crisis documentation and comparative analysis with a process tracing strategy for case reconstruction [23]. The model, based on cognitive and organizational theory, outlines steps facilitating structured comparisons as well as analytical themes developed for materials derived from a full spectrum of available sources.

With adherence to the stepwise methodology, we begin with placing the crisis in its proper historical, institutional, and political context. Next, we establish a time frame (January–August 2020) and produce a synthetic narrative. As pointed out by Stern and Sundelius [23]; it is necessary to adopt a principle of delimitation to isolate a coherent and manageable data base. Third, we analyze the events, mainly decisions, legislative measures, and steering guidance to isolate the most important events which together constitute the first part of the crisis. Fourth, still based on the model, we modify the themes and construct analytical themes that we find suitable as targets for a structured comparisons from a macro perspective involving documents (see below). The themes are (1) problem perception and framing, (2) emergency management such as gaining situational awareness and advising for cooperation between actors, (3) leadership, cooperation, and conflict and (4) possible value conflicts. Taken together, the framework let us specifically investigate critical turning points, decisions and guidance given primarily on a national level for the safeguarding and wellbeing of the elderly receiving care [23].

Our empirical material consists of National pre-COVID-19 pandemic plans, legal acts given, national level documents, restrictions and guidance targeting the social services concerning COVID-19 and persons receiving eldercare. The material was obtained from official web sites of the authorities leading the response, such as the ministries and agencies under them (see references). For reliability

---

\(^1\) A former centre at the Swedish Defence University.
social policy. The ministry is supported by several institutions and expert agencies. The National Institution of Health and Welfare (THL) provides expertise to support the Government decision-making during pandemics and the Finnish Institute of Occupational Health gives guidelines for workplaces on prevention of infections. The six Regional Administrative Agencies (RAA) guide and monitor preparedness and of the first wave to respond better during the waves that follow and to future crises.

6.1.1. Historical and organizational setting

In Finland, the Ministry of Social Affairs and Health (MSAH) oversees the planning, guidance and implementation of health and social policy. The ministry is supported by several institutions and expert agencies. The National Institution of Health and Welfare (THL) provides expertise to support the Government decision-making during pandemics and the Finnish Institute of Occupational Health gives guidelines for workplaces on prevention of infections. The six Regional Administrative Agencies (RAA) guide and monitor social and healthcare services. Residential care as well as homecare services are provided by the municipalities.

The municipalities are responsible for preparedness planning and emergency management. In very exceptional contingencies, the lead can be raised to the governmental level: The state can overrule the municipalities’ decisions if the emergency powers act is in effect. The regionally organized and municipally led hospital districts support municipalities in their pandemic planning and responses. However, the five university hospital districts play a central role in coordinating situational awareness at the regional level. The RAAs play a certain role in giving regional restrictions according to the act on infectious diseases. Even though 84% of the municipalities have completed their social services’ preparedness plans and 92% of the plans note eldercare as one of the vital services [20], actual social services’ emergency management is reported to be inadequate [25].

6.1.2. Pandemic preparedness

At the onset of the COVID-19 pandemic, the Finnish National Preparedness Plan for Influenza Pandemic of 2012 [26] was almost 10 years old. Nevertheless, it was followed in the breakout of the pandemic [27; 109]. The plan depicted typical evolution of influenza to a pandemic, emergency management in the healthcare sector, pandemic preparedness, and the role of all sectors during an outbreak, possible pandemic impacts, and mitigation measures, stockpiling and logistics of critical material, healthcare sector response, public communication, legislation concerning infectious diseases and pandemic crises and ethical aspects.

Even though the focus of the plan was on the healthcare, the plan acknowledged also both public and private social services. Eldercare, residential care, as well as homecare were noted throughout the guidance.

6.1.3. First wave response

On March 4, 2020, the MSAH communicated early warning information to the municipalities to update their pandemic plans and to gain situational awareness. The municipalities were reminded to pay special attention to vulnerable risk groups such as clients of eldercare services. Adequate public information was stressed. Municipalities were also urged to designate special locations for the infected, protect uninfected and take preventive measures in care situations. This guidance was given as “Information to the Municipalities” and the existing legal base of the measures were described in it.

A week later, on 11 March, MSAH recommended that social and health care personnel stay at home if sick, and for the employers to allow distance work and pay special attention to services where there are clients of high risk.

On March 16, 2020, the government decided to use the emergency powers act as a tool to enforce restrictions and enable national level management of the pandemic. In conjunction with this, the MSAH got the authority to direct social and healthcare service units. Social service providers were also released from the obligation of clients’ individual needs assessments, aiming to diminish social
workers’ workload. Among other measures, persons over 70 years old were urged not to have any contact with other people. The emergency powers act was in use until early June 2020.

On 20 March, the MSAH guided that daycare services for the elderly be closed and visits to elderscare services prohibited. MSAH also reminded that collaboration between social and healthcare actors and good flow of information was of utmost important.

On 24 March, guidance was given to use personal protective masks (PPM) and gloves in elderscare services while taking care of infected clients. With other clients it was enough to have good hand hygiene. The employers were guided to advice the employees to avoid overuse of PPM to save the stock for the riskiest situations. Homecare services were guided on 31 March to use masks, but the guidance was specified on the following day, that masks must be used while giving services to an infected person, and with clients with no symptoms good hand hygiene would be enough. However, on April 9, an order was issued that masks must be always used in elderscare services.

The government measures on March 30 were that social and healthcare employees must be tested if they have any flu-like symptoms.

At the end of March 2020, guidance was given to employers that they must provide instruction and training on preventive measures regarding hygiene, how to recognize symptoms of the infection and on how to react when clients are infected. Homecare services were guided to advise clients and their next of kin of appropriate hygiene measures. In connection to the guidance given, the municipalities were urged to publish guidance for domestic caregivers. The guidance was resembled in June.

On April 1, MSAH gave guidance for social services, including residential care, that the restrictions of movement must be based on legislation. The specification was given because some of the service providers were over-restricting movement of their clients and their visitors.

The employers were guided on April 7 how to implement the temporary decree on employers’ possibility to diverge a law-based vacations of employees serving in the social and healthcare services based on COVID-19 situation in the workplace. On April 9, employees were instructed not to rotate between units, and that moving clients from one unit to another should be avoided to prevent viral spread.

On April 16, MSAH urged municipalities to advice 24/7 elder care units on how to prevent the spread of infectious disease and how to restrict visiting. Residential care and homecare service were advised to follow the same measures in using PPEs as healthcare services.

On May 6, the MSAH reissused a reminder that visits to care services were not allowed, but clients in palliative care could be visited by relatives. This was specified ten days later that in general visiting the units by next of kin were not allowed. However, activities that enhance clients’ functionality should be organized in a safe way. A month later, on June 17, care providers were guided to allow visits by next of kin safely for example outdoors or in special ad hoc meet-up locations.

On May 15, guidance was released on measures to take in the event of infections within a unit. The guidance stressed testing all clients, employees, and visitors. Also, the units were instructed to not transfer clients unless there was a medical reason to do so. Furthermore, it was recommended that clients’ individual service must be up to date, and that individual pre-plans on healthcare restrictions - decisions on palliative care - must be done with the patient’s and their relatives’ consent. These would also have to be need-based. In addition, instructions were given on how to arrange palliative care in the units, and how to handle the deceased. On June 11, homecare services were instructed to support contacts with next of kin, to continue rehab services according to individual needs, and to enhance outings and good nutrition of the clients.

On 15 May MSAH guided on emergency management e.g. that the responsible doctor of the eldercare unit must collaborate with the municipality’s responsible doctor of infectious diseases. The municipalities were also urged to continuously inform the clients of social and healthcare services and their relatives of the pandemic.

On June 30, MSAH proposed to municipalities and private service providers, especially in residential care, how to finance protective masks. This should be approved as part of the purchasing process. If not approved, the Government pledged to finance PPEs supplied by the municipality to the private service providers.

6.2. Iceland

6.2.1. Historical and organizational setting

The Ministry of Social Affairs (MSA) is responsible for social affairs and the Ministry of Health (MH) is responsible for health services. Social services are provided at the municipal level and there are 69 municipalities. Regional Health Agencies (RHA) provide healthcare and in some municipalities also elderscare.

The organization and financing of elderscare in Iceland is complex: The municipalities are responsible for providing social services, including elderscare. The municipalities have legal obligation of policymaking, development, and innovation. At the same time, the ministries both coordinate and finance elderscare. Act on the Affairs of the elderly promotes integration of social and healthcare services to better secure service quality. Integration has been partly implemented in the Reykjavik capital area, while in the rural areas the volume, content and quality differ between municipalities. In 2021 the government introduced a proposal to reform elderscare and other social services towards more integrated care services with healthcare [28].

In the event of a nationwide hazards, such as the pandemic, the DCPEM gets activated. The Director of Health (DH) and its Chief Epidemiologist (CE) are responsible for preparing and responding to health crises and collaborate with the DCPEM. In general, preparedness planning and emergency management is mandatory for each ministry and its subordinate agencies. The same applies to the municipalities and bodies under their administration. They are obliged to draw up preparedness plans, based on the risk assessment in their administrative district [29].
6.2.2. Pandemic preparedness

At the onset of the pandemic, on January 27, 2020, the National Commissioner of Police (NCIP), in collaboration with the CE, declared an intensified level of civil protection. The latest national pandemic plan was from the year 2016. This plan was revised and published on March 5, and then published in its final form May 25, 2020 [30].

Social care services were not mentioned in the national pandemic plan, nor was the eldercare. However, according to the Civil Protection Act, preparedness planning is mandated for the municipal agencies, but few municipalities had put much effort into such planning [17,29]. The City of Reykjavík published its preparedness plan on February 13, 2020 [31].

6.2.3. First wave response

In its pandemic response, the government based its decisions on the guidance from the CE. The NCIP worked closely with the CE and DH, which became soon referred to as the “Troika” in everyday speech. Guidance and recommendations on disease prevention and action were presented and discussed by the Troika in regular public information meetings, and they enjoyed high level of trust among the public.

In February of 2020, the Association of Institutions and Service Providers in welfare services (AISP) requested a meeting with the CE to discuss the status of eldercare. The aim was to raise awareness of the frail risk groups at the onset of a possible pandemic.

On February 27, the first press conference was held by the NCIP, CE, and DH. A week later, on March 6, the DCPEM declared a national emergency. The AISP urged that residential care facilities should be closed for visits by relatives and guests. Many residential care units were already responding to this, and the municipal welfare services were closing social activity centers for the elderly and community centers as well as banning visits to the elderly and persons with disabilities. This was implemented in the more populated areas in the beginning, but later also in sparsely populated areas, depending on the spread of the virus.

On March 7, the DH and DCPEM introduced guidelines for use of PPE, e.g., gloves, work clothes, distance limits and number of person -limits, and wearing a mask within a 2-m rule. The guidelines also addressed the handling of laundry, food transportation and disinfection of utensils. The implementation of the guidelines was in the hands of the administration of each municipality and eldercare unit. In some cases, staff and wards were divided into quarantine sections and the service providers tried to ensure adequate staff resourcing in case of absences due to illness. Most eldercare units closed for visitors on March 7, but efforts were made to allow relatives to visit if close ones where dying.

On March 9, the Troika presented guidelines regarding protective clothing. The guidelines were also issued to gain an overview of the supply situation in the country, facilitate access for all institutions to necessary PPE and ensure their correct use. While there were clear guidelines regarding protective measures, no such guidelines were issued regarding how to maintain the quality of the services.

There were still no centralized guidelines aimed at the municipal homecare services for the elderly. However, the recommendation from DH on March 7 was applied, and the homecare service managers reassessed the needs of their clients and reorganized the need for necessary services. In some cases, service was converted to digital form.

On March 11, the MSA, MH and the WEA worked together on a central registration of a back-up-team for health services, and a few days later, on March 15, for social services as well. On March 24, the MSA, the MH and the IALA decided to appoint a team to reduce and prevent service disruptions for vulnerable groups, including the elderly.

On 27 March the DH gave recommendations for hygienic measures, the use of masks and protective clothing to prevent infections. The national hospital was responsible for purchasing, stockpiling, and managing the logistics of critical PPE for the municipalities.

On April 6, the director of one of the care homes in Reykjavík participated in the Troika team information meeting to address the situation of the 3000 inhabitants in residential care. A special new COVID-19-unit for the Reykjavík area was opened at one of the care homes. On the same day, the first infection in eldercare was confirmed, and on April 20 two deaths were announced.

On April 21, the government presented a policy on how to support vulnerable groups which included measures to prevent the social isolation of the elderly.

Between May 4 and June 2, restrictions were reduced, and service providers reassessed the quantity of their service delivery, at the same time upholding the recommendation of distance and infection prevention.

Throughout the first wave of the pandemic, the CE and the DH worked closely with the MH and the Government, who mainly followed experts’ recommendations when it came to legislative and regulative measures, e. g. ban on gatherings, rules on quarantine, and the use of protective clothing.

6.3. Sweden

6.3.1. Historical and organizational setting

In Sweden, the Ministry of Social Affairs is responsible for social and healthcare. However, operational decisions are left to autonomous authorities on a national but mainly regional and local level. Due to this decentralized system, coordination is generally an important component of enacting responsibility. The Public Health Agency (PHA), with responsibility for public health, communicable diseases, and other health threats, is responsible for coordinating pandemic preparedness at a national level, as well as providing support at the regional and local levels. In case of a dangerous public outbreak, the PHA can issue regulations and take action. A state of emergency cannot be implemented due to constitutional restrictions. As regards PPE, it falls under PHA but also under the Swedish Work Environment Agency (WEA), from the perspective of occupational safety.

Likewise, under the Ministry of social affairs, The National Board of Health and Welfare (NBHW) is tasked to regulate regional and municipal level social and healthcare services as well as support with knowledge and expertise concerning emergency preparedness. The roles of the PHA and NBHW overlap to some extent, as the latter is responsible for providing expertise and guidance to the social services in preparations for, and management of, emergencies.
All 290 municipalities are responsible for eldercare and other social services. Under the legislation on extraordinary events, the municipalities are responsible for planning, risk reduction and responding to disruptions within all operational areas, including eldercare. Legal requirements regarding the quality in eldercare applies also in crises.

6.3.2. Pandemic preparedness

At the onset of the COVID-19 pandemic there were some additional documents of relevance in place at the national level addressing pandemic preparedness. ‘Pandemic Preparedness. How to prepare - a knowledge base’ published by the PHA on December 19, 2019, aims at supporting relevant national authorities and county medical officers, emergency managers, as well as regional and local actors responsible for health and social care.

The document outlines the global and the national structures to combat a pandemic. Care services, implicitly including eldercare are mentioned in relation to identification of risk groups and regarding staff availability. In addition, it is stated that good hygienic standards and basic routines within health and social care services are essential to protect patients and staff. This requires access to adequate competence, equipment, and facilities. Eldercare is noted as well. It is notable that the term ‘patient’ is used throughout the document, and not the word “client” or “user”, which is used in the social services.

This document is supplemented by two additional documents. ‘Pandemic Preparedness. How we communicate - a knowledge base’ targets inter alia local authorities and staff working with communication and pandemic preparedness. Elderly and staff in social as well as care services are identified as groups for targeted information. Pandemic Preparedness - Availability and use of pharmaceuticals’ on the other hand, targets regional infection control, physician and regional preparedness planners, and does not touch upon eldercare explicitly.

It is of certain relevance that the document ‘The National Pandemic Plan’ of 2012 published by the NBHW, despite being marked as ‘outdated’ was/is still available (online) since PHA took over the responsibility for contagious diseases in 2015. The parts of this document designed to provide social services with expertise and knowledge have not been replaced.

However, the NBHW’s remaining responsibility briefly comes to the forefront in a guidance from 2019. Here, pandemics are listed as one of the emergencies municipalities must prepare for, but only in view of a potential staff shortage, not from the users’ perspective. The guidance from 2009, ‘Crisis preparedness for the social services’, uses a pandemic scenario to present a structure and overview for service continuity and give recommendations. Shortly after ‘No force majeure for the social service’ was also published, a short version of the guidance.

In 2013, the NBHW issued regulations and general advice on emergency medical preparedness which does not apply to municipal healthcare.

6.3.3. First wave response

A combination of binding rules and recommendations, though underpinned by legislation, were applied in the early pandemic response concerning eldercare. One of the first measures were taken by the PHA on March 10, when the agency suggested at a press conference that relatives should avoid visits to eldercare facilities and that staff with symptoms should not work to prevent the spread of the virus. In addition, the NBHW was tasked by the government on March 12 to target social services and risk groups. As a result, information was given to the municipalities. It was a broad reminder of existing legislation and the crisis management system. It also covered existing standards for basic hygiene and personal protection, facilities, staff competence, the employer’s responsibility for the working environment and monitoring. On the same date, the PHA listed healthcare and eldercare workers besides persons in need of healthcare as priority groups to be tested for the virus.

On March 30, the PHA provided advice on how Covid-19 patients in eldercare should be cared for while at the same time ensuring the protection of staff against infection. The restrictions on visits in terms of recommendations were strengthened on April 1 by a temporary national ban under a new ordinance issued by the government. In connection to this, it was decided that elderly people in need of hospital care should be prioritized. On 3 April NBHW publishes advice on alleviation of symptoms in palliative care in cases of Covid-19.

On 7 April NBHW published guidance and educational material on the work with municipal healthcare which included eldercare. Source control and PPE were covered as well as hygiene. The day after, 8 April an introductory education targeting newly employed was launched by NBHW in cooperation with a university.

On 15 May, a national system for the distribution of PPE to municipalities was launched and two days later the PHA offered guidance in the form of online Q&A on the responsibilities of municipalities to provide PPE to private service providers. Eldercare was affected by this distribution of certain equipment to the healthcare providers from NBHW.

Further on 17 April, the PHA launched Q&A addressing staff competence targeting the home healthcare. Basic hygiene, protective clothes, and equipment, testing of staff, the employers’ responsibility to protect staff and contagious waste was covered. The same day, the Health and Social Care Inspectorate launched an inspection focusing on basic hygiene to investigate and contribute to reducing the spread of covid-19 in eldercare facilities, thereby introducing a follow up and monitoring perspective.

On 23 April the NBHW was asked by the government to supply hand disinfections to all municipalities in cooperation with the county administrative boards. The same authority provided guidance on 24 April on the movements of individual care recipients with dementia in eldercare facilities. It reaffirmed that the social services act does not support the use of force but only voluntary measures in restricting individuals’ movement. The importance of hygiene measures and compartmentalization of facilities was also underlined.

7 May the PHA published recommendations on actions to prevent the spread of infection from personnel to their clients. On 8 May the PHA recommended testing the elderly with symptoms of covid-19 in eldercare facilities and on 29 May the recommendation was expanded to cover elderly living in special accommodations.
On 4 June, a checklist was published by the NBHW aiming at prevention of infection to enter eldercare facilities.

On 12 June the PHA followed up its recommendations from 7 May by publishing examples of measures to prevent the spread of infection in eldercare facilities. A bit later, on 20 June the PHA launched pedagogical material to support hygiene routines applicable in eldercare.

On 20 June a national commission tasked to investigate the pandemic with a special interest for eldercare was launched by the government to deliver the first report in December 2020.

On 25 June the PHA strengthened and specified previous recommendations by issuing recommendation to use both a face mask and a visor during work with suspected or ascertained covid-19 care recipients.

On 16 July the NBHW launched a model survey to support the municipalities in gaining situational awareness within the eldercare services. This support for emergency management targeted social and healthcare managers and responsible nurses.

On 22 July the PHA published the first version of guidance on how to trace infections among services and risk groups. The same day the PHA also launched Q&A for eldercare on rehabilitation and on testing of eldercare clients and staff.

On 28 July the NBHW provided information targeting eldercare staff and managers general knowledge of covid-19, hygiene, protective clothes, testing etc.

On 20 August the government extended the ban on visits to eldercare facilities until September 30, 2020.

7. Comparative discussion

7.1. National pandemic plans

The eldercare services were addressed differently in Finland, Iceland, and Sweden. This answers our first research question on national pandemic plans. In Finland, the plan acknowledged appropriately both public and private social services. Eldercare was noted throughout the guidance, and this was also reflected in the pandemic response.

The Icelandic national pandemic plan did not address social services, nor did it specify the role of local authorities. Municipalities’ planning of social care services was not integrated with the health services in the national plan. Thus, the result was that local planning on eldercare and national planning for health epidemics didn’t go hand in hand.

In the Swedish pandemic plan eldercare in general was noted but not further elaborated upon. The level of elaboration in the plan does not correspond to the organizational and systemic intricacies of eldercare, in terms of municipal and regional variations and roles of national authorities, as well as the need for cooperation due to a complex structure. Also, the plan seemed only to assume that social services and eldercare were generally involved in emergency preparedness on a local level.

7.2. The response

The results concerning our second research question - the measures taken as well as instructions and guidance given to eldercare - are described in the country specific chapters. Previous studies show that Finland and Sweden, though more vaguely than Finland, specifically address the role of social services in their legal frameworks and guidelines for emergency preparedness. Iceland does not address the role of social services in disasters in the law on Civil Protection and Emergency Management, nor is it mentioned in the Act

| Table 3 | A timeline of the first Covid-19 case and key measures taken during the first Covid-19 wave in 2020 in Finland, Iceland, and Sweden. |
|-----------------|---------------------------------------------------------------|
| **First Covid-19 case** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** |
| Finland 30 Jan | | | | | | | | |
| Sweden 31 Jan | Iceland 28 Feb | | | | | | | |
| **Visit restrictions** | | | | | | | | |
| Iceland 7 Mar | Sweden 1 Apr | | | | | | | |
| Finland 20 Mar | | | | | | | | |
| **Safe visits allowed** | | | | | | | | |
| Iceland 2 May | | | | | | | | |
| Finland 17 May | | | | | | | | |
| **Guidance on PPE** | | | | | | | | |
| Iceland 7 Mar | | | | | | | | |
| Finland 24 Mar | Sweden 7 Apr | | | | | | | |
| **Guidance on EM** | | | | | | | | |
| Finland 4 Mar | | | | | | | | |
| Iceland 5 Mar | | | | | | | | |
| **Sweden 16 Jul** | | | | | | | | |

*EM = Emergency Management.
on Social Services [12]. Despite this lack of legal framework our timeline shows (Table 3) that Iceland took safeguarding measures in the eldercare earlier than Finland and Sweden. Given the differing responses, and specifically the number of deceased, between the countries during the first wave of the pandemic as Table 1 Indicates there seems to be at least a vague sign of correspondence between legal frameworks and organization of responses. As part of the eldercare is provided by Regional Health Agencies in Iceland this part of the services is following health care legislation where disaster preparedness is mandatory.

Finland based their regulation, guidance, and recommendations for the eldercare services mostly on existing legislation and the temporary emergency powers act. However, some of the restrictions concerning eldercare did not have legal base and should have had the status of recommendation [27]; 47–52. Sweden drew upon existing legislation on health and social services, and contagious diseases infection control, and did not issue temporary decrees and amendments to the legislation with the exception of the ban of visits to the eldercare units. In Iceland, the legitimacy of the guidance and instructions regarding the ban of visits was unclear, and decisions differed from one region to the other, specifically decisions regarding the closing of services and restricting visitors in the eldercare. This might derive from the division of the eldercare between social or health care services.

Despite that the pandemic landed to Iceland somewhat later than to Finland and Sweden the Icelanders recommended the use of PPE in the eldercare and restricted eldercare visitors earlier that the two sister countries. Iceland also was able to ease restrictions earlier compared to Finland and especially Sweden. Finland was swift in reminding of general emergency management measures to be taken in the services. Iceland included these in their revised National Pandemic Plan at the onset of the pandemic.

A timeline for key measures taken across all three countries is depicted in Table 3. Considering our methodological approach, and the selected themes, we found similarities and differences between the three countries. These are illustrated in Table 4.

7.2.1. Theme one – problem perception and framing

The pandemic was framed and perceived as a health crisis or, more specifically, as a crisis of the healthcare services in all three countries. The overall response concentrated on ensuring the capacity of intensive care services. This was the case in the western world in general (see also [27]; 12 [2]; 25–26). This framing comprises a value conflict: concentrating on intensive healthcare capacity may have overshadowed the needs of the most vulnerable group – the elderly. The early assumption that the elderly would be the most affected group in terms of the number of deceased in 2020 [1] was not responded to fittingly.

The guidance focused on occupational health challenges, and the protection of employees from the viral infection in Finland and Sweden. This might derive from the shortage of PPE at the beginning of the pandemic [27]; 33, 87 [32]; 10 – a shortage that Iceland did not experience. Beyond the protection of the employees, the recommendations, and regulations in all three countries concentrated on restrictions of the clients and next of kin.

7.2.2. Theme two – guidance on emergency management

Guidance on measures on emergency management, such as gaining situational awareness, advising for cooperation between actors, crisis communication and material preparedness were part of the guidance for eldercare in all three countries. In Finland and Iceland, the emergency management elements were included in the guidance throughout the first wave (see also Table 3). However, providing PPE to the private eldercare services was not addressed in Finland until June of 2020. Iceland was unique in that PPEs were centrally procured and delivered to the care services. Finally, in Sweden, the national level eventually provided PPE to both public and private eldercare service providers.

7.2.3. Theme three – leadership, cooperation, and conflict

Regarding organization and leadership in Finland, management of the pandemic was notably centralized under the emergency powers act. The eldercare received attention and were included in the very first guidance of the Finnish Government.

In Iceland, the Troika led the national response. The central actors of eldercare providers were active in raising awareness of the need to protect their frail clients and took initiative to include local actors in the decision-making process. Actual decisions on measures to be taken were made at the eldercare unit level, although based on recommendations from the Troika. At the local level, solutions had to be created without support from the national level.

The pandemic underlined the overlap between the NBHW and the PHA in Sweden and tended to result in certain confusion at the local level when guidance and recommendations were issued [33]. Also, the roles of the NBHW and the County Administrative Board (s) overlapped to some extent in operational terms, and this issue is not dealt with in the pandemic plan. From the end of March, the support provided by the NBHW in cooperation with the PHA addressed the elderly. Here, we note a delay in the response (cf [32]; 10). Also, guidance on emergency management that, to fulfill its function, should have been published before the pandemic was not in

| Theme | Finland | Iceland | Sweden |
|-------|---------|---------|--------|
| 1 Problem perception and framing | Health crisis and healthcare services’ crises | Health crisis and healthcare services’ crises | Health crisis and healthcare services’ crises |
| 2 Guidance on emergency management as part of the response to the crisis | Yes, in the very first guidance and there after | Yes, as part of the revised national pandemic plan and on material preparedness | Yes, on situational awareness and PPE |
| 3 Leadership, cooperation, and conflict | Lead taken by the government | Troika and united front in general and ad-hoc decisions | PHA leadership and NBHW role overlap |
| 4 Value conflicts | Restrictions affecting the quality of the services | Restrictions affecting the quality of the services | Restrictions affecting the quality of the services |

Table 4

Similarities and differences in the pandemic response in eldercare in Finland, Iceland and Sweden.
place.

7.2.4. Theme four – value conflicts

In general, we did not find a clear sign of conflict, but some critique, blame and countervailing tendencies relating to eldercare. We also found value conflicts in the pandemic response involving the value of protection versus the value of social contact and self-determination and hence relating to the quality of eldercare. In both Finland and Sweden, over-restrictions of movement had to be addressed. In Iceland, locking people in their own homes in residential care due to quarantine also raised questions about the ethical and legal grounds for such decisions. Furthermore, the lack of emotional care from relatives was also highly questioned, not least for those that were in their final phase of life.

8. Conclusions

We found major differences between the three Nordic countries when it came to the inclusion of eldercare in the National Pandemic Plans, and both similarities and differences in the pandemic response. This is in line with a previous study where it was found that the Nordic countries have chosen quite different paths regarding the local social services’ role in emergency preparedness and management [12]. Social care services appeared late on the response radar, and the value of protection was not discussed against the values of self-determination and psychosocial wellbeing during the first wave of the pandemic.

The vital services provided by municipalities for the elderly where less addressed during the execution of the responses than could be expected, given that the elderly was early identified as a main risk group [1]. Szebehely [2]; 33) found that the rapidity of central authorities to react with guidelines and restrictions, and the amount of focus on eldercare, are crucial in preventing excess mortality of the elderly in care services. Given the differing death tolls in the three Nordic countries, which was very high in Sweden, we can conclude that a combination of lack of clear legal base of preparedness in eldercare, high viral infection rate in the society and confusion of the leadership can result in devastating consequences for the elderly.

Noticing adequately the protection of vulnerable populations, the impacts of hazards, such as pandemics, could be better alleviated and human disasters diminished [34]. In the Nordic countries, services for the elderly are mainly provided within social services. These are characteristically sensitive to the social distribution of risk and vulnerability such as age, gender, function ability, migration status and ethnicity, and socioeconomic status [29]. These are all aspects that have been shown to play out considerately in the covid-19-pandemic [35]. Clear legal framework and integration of social services in the general preparedness planning and emergency management on the one hand, and on the other, social and healthcare integration, could have increased sustainability of the services. This would result in more holistic approach, thus, meeting the needs of the service users and especially the vulnerable groups, increasing service efficiency and enhancing resilience of our societies (see e.g. Ref. [36]).

Thus, the general conclusion of our study is in line with previous studies regarding the importance of strengthening the position of local social services within the emergency preparedness and management systems and legal frameworks to enhance disaster resilience in the Nordic countries [12]. This study confirms the importance of this integration of the care of the elderly in preparedness planning, but also draws attention to the importance of considering value conflict beforehand. Considering the growing number of elderly in the population, and care challenges in the Nordic countries, as well as the likelihood of future crises, it is of vital importance to remedy this lack.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

All data is available in public websites which are listed in the article section Data Availability.

References

[1] CNHC, China National Health Commission: Elderly Still Most Vulnerable to the Virus, 30 January 2020, 2020. http://en.nhc.gov.cn/2020-01/30/c_76208.htm. (Accessed 19 April 2022).
[2] Marta Szebehely, Internationalella erfarenheter av covid-19 i äldreboenden. (International experiences of Covid-19 in the institutional and residential eldercare, in: Swedish). Underlagssrapport till SOU 2020:80 Aldreomsorgen under Pandemien, 2020. Stockholm 2020.
[3] COVID-19 Data Repository by the Center for Systems Science and Engineering at Johns Hopkins University, 2021. https://ourworldindata.org/covid-deaths. (Accessed 22 January 2021).
[4] Nordiska rådet, Fakta om de nordiska länderna 2022, 2022 accessed, https://www.norden.org/sv/information/fakta-om-de-nordiska-landerna. (Accessed 29 April 2022).
[5] Statistics Sweden, Sveriges Befolkningspyramid, 2022. https://www.scb.se/hitta-statistik/sverige-i-siffror/manniskorna-i-sverige/sveriges-befolkningspyramid/. (Accessed 29 April 2022).
[6] The World Bank. https://data.worldbank.org/indicator/SP.POP.6SUP.TO.ZS?end=2020&locations=IS&start=1960&view=chart, 2020. (Accessed 20 May 2022).
[7] Worldometers. https://www.worldometers.info/coronavirus/, 2022, 20. 5.
[8] M. Alston, T. Hazeleger, D. Hargreaves, Social Work and Disasters. A Handbook for Practice, Routledge, London och New York, 2019.
[9] G.M. Gutman, Y. Yon, Elder abuse and neglect in disasters: types, prevalence and research gaps, Int. J. Disaster Risk Reduc. 10 (2014) 38–47, https://doi.org/10.1016/j.ijdrr.2014.06.002.
[10] S. Sanders, S.L. Bowie, Y. Dias Bowie, Lessons learned on forced relocation of older adults: the impact of hurricane andrew on health, mental health, and social support of public housing residents, J. Gerontol. Soc. Work 40 (4) (2003) 23–35.

[11] N.D. Thomas, H. Soliman, Preventable tragedies: heat disaster and the elderly, J. Gerontol. Soc. Work 38 (4) (2002) 53–66.

[12] M. Rapeli, C. Cuadra, R. Dalherus, G. Eydal, B. Hvinden, I.L. Omarsdottir, T. Salonen, Local social services in disaster management. Is there a nordic model? Int. J. Disaster Risk Reduc. 27 (2017) 618–624, https://doi.org/10.1016/j.ijdrr.2017.07.018.

[13] J. Engberg, M.E. Wemius, Outsourced responsibilities and new public management: the context of Swedish crisis management as seen from county administrative boards, Int. J. Mass Emergencies Disasters 33 (3) (2015) 323–339.

[14] Finnish Ministry of Defence, Security Strategy for Society, Finnish Ministry of Defense, Helsinki, 2017. Government Resolution 2.11.2017, https://turvallisuuskomitea.fi/en/security-strategy-for-society/ . (Accessed 9 May 2022).

[15] M. Rapeli, Social capital in social work disaster preparedness plans: the case of Finland, Int. Soc. Work 61 (6) (2018) 1054–1066. https://doi:10.1177/0020728718795643.

[16] L. Clarke, Mission Impossible. Using Fantasy Documents to Tame Disasters, The University of Chicago Press, Chicago, 1999.

[17] S. Sigurðardóttir, T. Rostgaard, in: E. Dahler-Larsen, T. Rostgaard, V.H. Worm, J.A. Sigurjónsson, Social capital in social work disaster preparedness plans: the case of Finland, Int. Soc. Work 61 (6) (2018) 1054.

[18] M. Rapeli et al., Mission Impossible. Using Fantasy Documents to Tame Disasters, The University of Chicago Press, Chicago, 1999.

[19] European Commission, European civil protection and humanitarian aid operations, Factsheet, https://ec.europa.eu/echo/what/humanitarian-aid/disaster-preparedness-en , 2022, 19, 4.

[20] Health and healthcare of the elderly in the Nordic countries – from a statistical perspective, in: I.P. Lütz, NOMESCO Nordic Medico Statistical Committee 106 (2017) 2017.

[21] T. Rostgaard, in: E. Dahler-Larsen, T. Rostgaard, V.H. Worm, J.A. Sigurjónsson, J.T. Næs, H. Finne-Søveri, M.-L. Osterlund, S.H. Sigurðardóttir, T. Ouren, A.-K. Granberg, Norden Aeldreomsorg i, vårfældcentrer Nordens, Stockholms, Navií (Eds.), Komparativ Kapitel, 2015. https://nordicwelfare.org.fi/publikationer/aeldrepleje-i-norden/ . (Accessed 24 April 2021).

[22] S. Sigurðardóttir, in: E. Dahler-Larsen, T. Rostgaard, V.H. Worm, J.A. Sigurjónsson, J.T. Næs, H. Finne-Søveri, M.-L. Osterlund, S.H. Sigurðardóttir, T. Ouren, A.-K. Granberg, Norden Aeldreomsorg i, vårfældcentrer Nordens, Navií Stockholm (Eds.), Aeldreomsorgen I Island, 2015. https://nordicwelfare.org.fi/publikationer/aeldrepleje-i-norden/ . (Accessed 24 April 2021).

[23] E. Stern, B. Sundelius, Crisis management europe: an integrated regional research and training program, Int. Stud. Perspect. 3 (2002) 71–88.

[24] J.F. Daoust, E. Belanger, R. Dassonneville, E. Lachapelle, R. Nadeau, Is the unequal COVID–19 burden in Canada due to unequal levels of citizen discipline across provinces? Can. Publ. Pol. 48 (1) (2022) 124–143.

[25] T. Harrikari, M. Romakkaniemi, L. Tiitinen, S. Ovaskainen, Pandemic and social work: exploring Finnish social workers’ experiences through a SWOT analysis, Br. J. Soc. Work (2021) 1–19, https://doi.org/10.1093/bjsw/bca0052, 2021.

[26] MSAH, Kanalrinni varautumissuunnitelma influensapandemias varten (National preparedness plan for pandemic influenza, in: Finnish.) Sosiaali- ja terveysministeriön julkaisuja 2012:9, STM, Helsinki, 2012, ISBN 978-952-00-3347-7. http://urn.fi/URN . (Accessed 29 April 2022).

[27] SIAF, The First Wave of CORONA-Pandemic in Finland in 2020, 2021, Safety Investigation Authority, Finland, 6/2021, https://www.turvallisuustutkinta.fi/en/index/tutkintaselostukset/poikkeuksellisetapahtumat/ktnqjspo.html . (Accessed 9 May 2022).

[28] H.G. Guðmundsson, Virðing og reisn – samþætt heilbrigðis- og félagsstjórnusta fyrir eldra fólkið. (Respect and dignity - integrated health and social services for the elderly in Icelandic). https://samradg.is/Skrar/%Cases/GetCaseFile/?id=7b0b2b8dafa-23db-e11-9ba4-005056bcce7e%7D, 2021. (Accessed 9 May 2022).

[29] G.B. Eydal, I.L. Omarsdottir, B. Hvinden, C. Cuadra, M. Rapeli, T. Salonen, Local Social Services in Disaster Management. Is there a Nordic Model? Int. J. Disaster Risk Reduc. 27 (2017) 618–666. https://doi: 10.1016/j.ijdrr.2017.07.018.

[30] NCIP and CE, Rikisfóregreiningur Óg Sóttvarnaælnækir (Pandemic, National Plan. In Icelandic), 2020. Heimsfaraldur, landsætlun. Útg. 3.1. 2020, https://www.landsaetlan.is/skrar/3Cases/GetCaseFile/?id=%7B0b289dda-23db-e11-9ba4-005056bcce7e%7D, 2021. (Accessed 9 May 2022).

[31] G.B. Eydal, I.L. Omarsdottir, B. Hvinden, C. Cuadra, M. Rapeli, T. Salonen, Local Social Services in Nordic Countries in Times of Disasters, Report for the Nordic Council of Ministers, 2016.

[32] SOU, 10 Sverige under pandemin, Coronakommissionen. Slutbetänkande. (Sweden in Pandemic. In Swedish), https://coronakommissionen.com/publikationer/slutbetankande-swe-2022-10/ . (Accessed 9 May 2022).

[33] Vårdföretagarna, Aeldreomsorgen Den Svaga L¨olk. (Respect and dignity - integrated health and social services for the elderly in Icelandic), https://samradg.is/Skrar/%Cases/GetCaseFile/?id=7b0b2b8dafa-23db-e11-9ba4-005056bcce7e%7D, 2021. (Accessed 9 May 2022).

[34] E.D.H. Guðmundsdóttir, Velferdarsvíd reykjavíkurborgar og heimisfaraldur covid-19- undirbúningur, aðgerðir og tækiﬁari. (Reykjavík city welfare department and pandemic covid-19: preparation, actions and opportunities, in: Icelandic Reykjavíkurborg 2020, 2020, https://fundur.reykjavik.is/sites/default/files/agsenda-items/ranssokn_covid-19-og-velferdarsvid.pdf . (Accessed 9 May 2022).

[35] M. Priestley, L. Henningway, Disability and disaster recovery, J. Soc. Work. Disabil. Rehabil. 5 (3–4) (2007) 23–42, https://doi.org/10.1300/J198v05n03_02.

[36] L. Osterlund, S.H. Sigurdardottir, T. Ouren, A.-K. Granberg, Norden Aeldreomsorg i, vårfældcentrer Nordens, Stockholms, Navií (Eds.), Komparativ Kapitel, 2015. https://nordicwelfare.org.fi/publikationer/aeldrepleje-i-norden/ . (Accessed 24 April 2021).

[37] J. Rostgaard, M. Rapeli, C. Cuadra, R. Dalherus, G. Eydal, B. Hvinden, I.L. Omarsdottir, T. Salonen, Local social services in disaster management. Is there a nordic model? Int. J. Disaster Risk Reduc. 27 (2017) 618–624, https://doi.org/10.1016/j.ijdrr.2017.07.018.