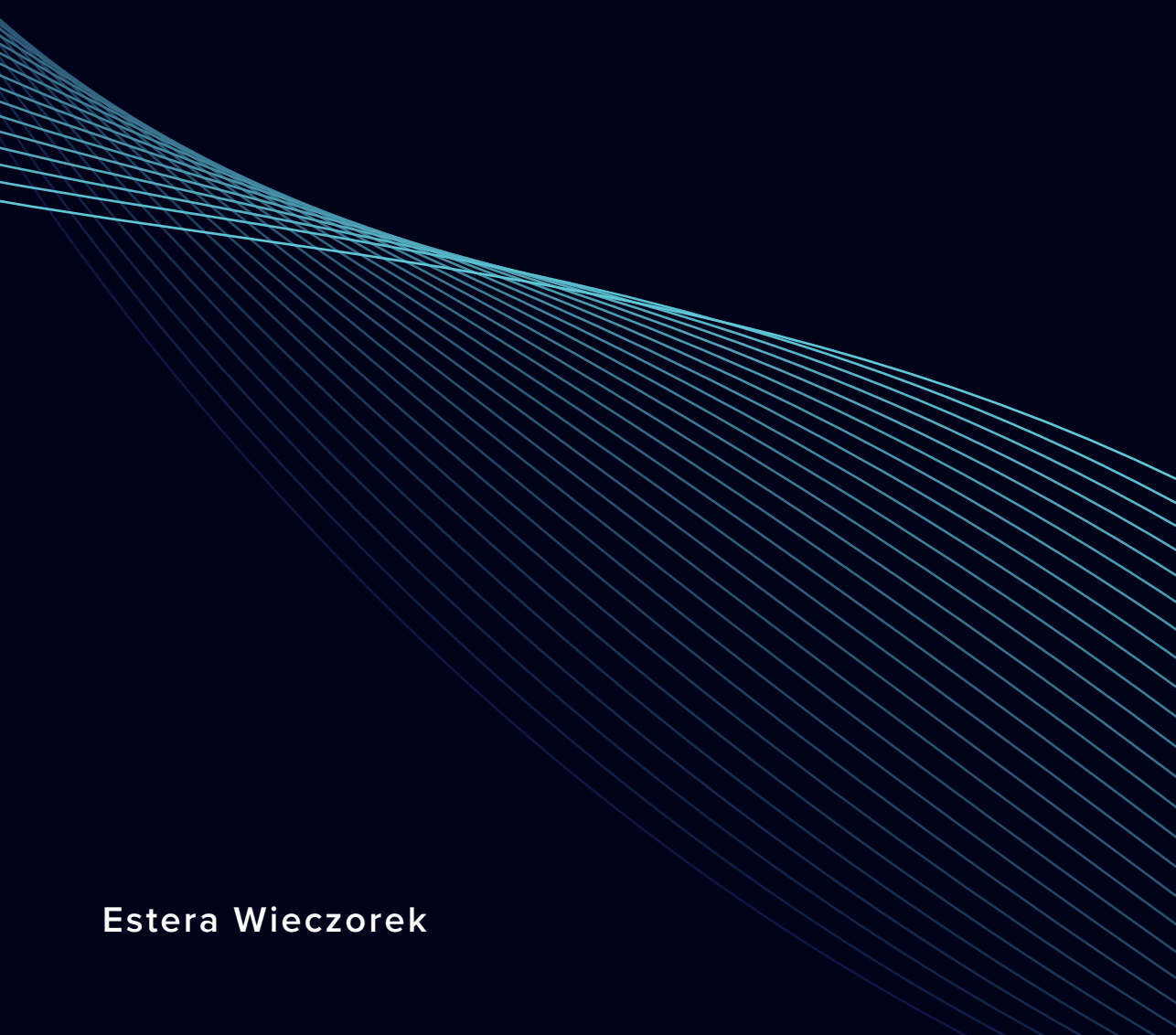
Organizational and financial aspects affecting care transitions in long-term care systems

ORGANIZATIONAL AND FINANCIAL ASPECTS AFFECTING CARE TRANSITIONS IN LONG-TERM CARE SYSTEMS

ANALYSIS OF SELECTED EUROPEAN COUNTRIES



Estera Wieczorek

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ISBN: 978-94-6469-706-3
Cover concept: E. Wieczorek
Design cover and layout: Ilse Modder | www.ilsemodder.nl
Printed by: Gildeprint Enschede | www.gildeprint.nl

ORGANIZATIONAL AND FINANCIAL ASPECTS AFFECTING CARE TRANSITIONS IN LONG-TERM CARE SYSTEMS

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Dissertation

To obtain the degree of Doctor at Maastricht University,
on the authority of the Rector Magnificus,
Prof. dr. Pamela Habibović
and to obtain the degree of Doctor of Health Sciences at Jagiellonian University Medical College, on the authority of the Rector Magnificus,
Prof. dr. hab. Tomasz Grodzicki

in accordance with the agreement entitled
"Partnership agreement governing the joint supervision of the doctoral dissertation, joint conduct of the doctoral assessment process and awarding of a doctorate diploma between Jagiellonian and Maastricht University"
and the decision of the Board of Deans, to be defended in public
on Tuesday 19th of December 2023, at 16:00 hours

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Acknowledgment:
This research is part of the TRANS-SENIOR Marie-Curie International Training Network; an EU funded project designed to train health care innovators who will shape future care for senior citizens. Funding was provided by the European Union's Horizon 2020 research, an innovation programme under the Marie Sklodowska-Curie grant agreement No 812656.

The research presented in this dissertation was conducted at the Institute of Public Health, Department of Health Economics and Social Security of Jagiellonian University Medical College and at CAPHRI Care and Public Health Research Institute, Department Health Services Research of Maastricht University. CAPHRI participates in the Netherlands School of Public Health and Care Research Care.

This thesis entitled 'Organizational and financial aspects affecting care transitions in long-term care systems' is part of a joint degree with the Jagiellonian University Medical College.

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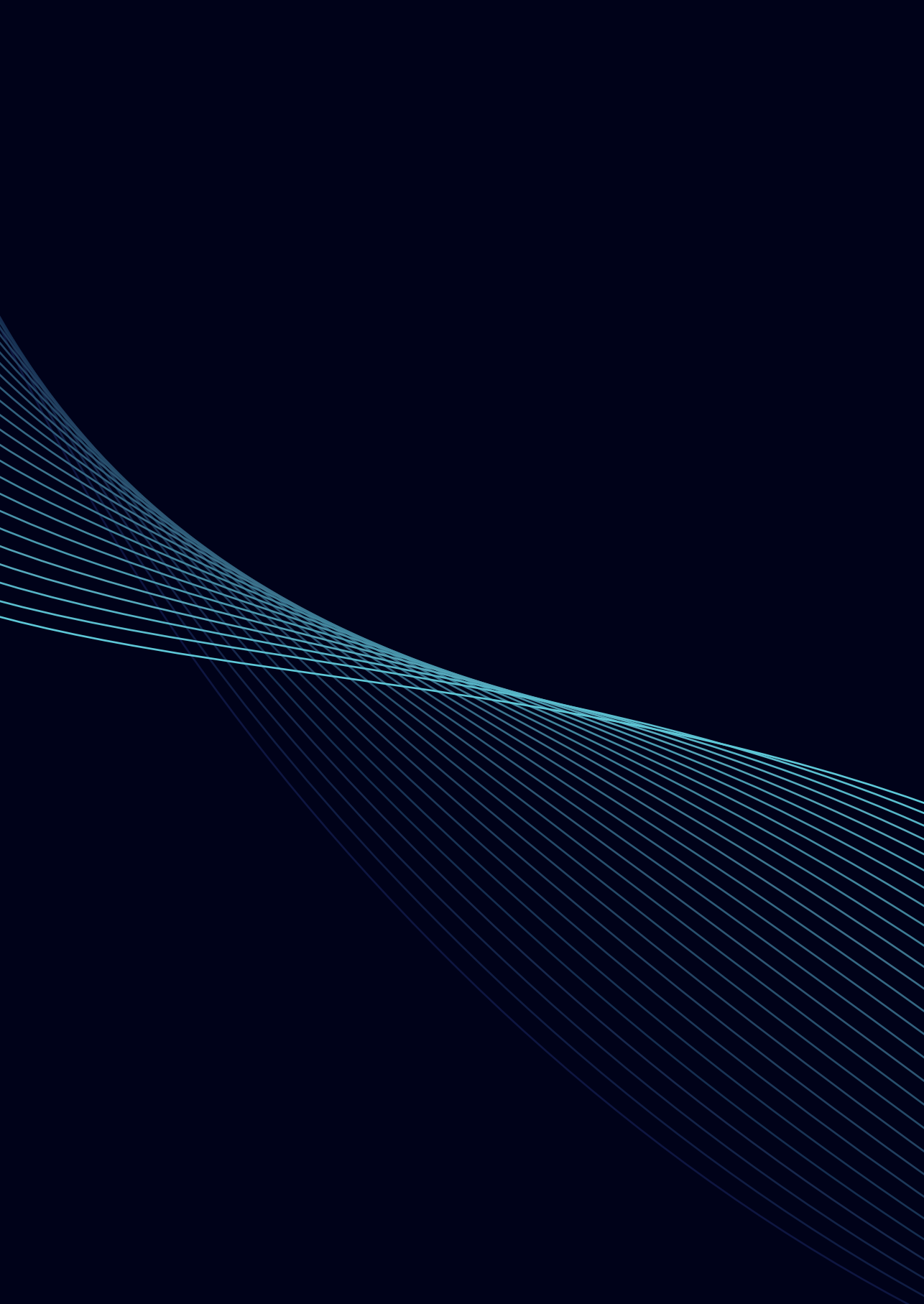
LIST OF ABBREVIATIONS

ADL	Activities of Daily Living
ATLAS.ti	Archiv für Technik, Lebenswelt und Alltagssprache
CASP	Critical Appraisal Skills Programme
CEE	Central and Eastern European
CfC	Cash-for-Care
CINAHL	Cumulated Index to Nursing and Allied Health Literature
COREQ	Consolidated Criteria for Reporting Qualitative Research
COVID-19	Coronavirus Disease 2019
CTM	Care Transition Measure
DALY	Disability-Adjusted Life Years
DRG	Diagnosis Related Group
EMBASE	Excerpta Medica Database
EPHPP	Effective Public Health Practice Project
EU	European Union
GDP	Gross Domestic Product
G-DRG	German System of Disease Related Groups
IADL	Instrumental Activities of Daily Living
LTC	Long-Term Care
MEDLINE	Medical Literature Analysis and Retrieval System Online
MISSOC	Mutual Information System on Social Protection
NGO	Non-Governmental Organization
OECD	The Organization for Economic Cooperation and Development
OOP	Out-of-Pocket
PACT-M	Partners at Care Transitions Measure
PCPs	Primary Care Physicians
PLN	Polish Złoty
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PROSPERO	International Prospective Register of Systematic Reviews
P4C	Pay-For-Coordination
P4P	Pay-For-Performance
P4Q	Pay-For-Quality
SHARE	Survey on Health, Ageing and Retirement in Europe
TCAT-LTC	Transitional Care Assessment Tool in Long-Term Care
TRANS-SENIOR	Transitional Care Innovation in Senior Citizens
FFS	Fee-for-Service
WHO	World Health Organization



CHAPTER 1

General introduction

1.1 THE SCOPE OF THE DISSERTATION

The world's population is aging. The percentage of population aged 65 years and over is predicted to grow between 2022 and 2050 in all regions of the world. In 2022, the global share of the population aged 65 years and over was around 10%, but according to estimates, it will grow to 12% in 2030 and 16% in 2050 (United Nations, 2022). The highest proportion of older adults in 2022 was in Europe and Northern America, and it is estimated that by 2050 around 27% (more than one in four) of individuals in these continents will be aged 65 years and over (United Nations, 2022).

Older adults are more likely to suffer from chronic diseases and multimorbidity. Eurostat database showed that in 2021, in the European Union, approximately 65.8% of individuals aged 65 and over and 74.7% of people aged 85 years and over reported having long-standing illness or health problem. In comparison, only 33.7% of individuals aged 16-24 years old indicated such an issue (Eurostat, 2023a). In addition, the Survey on Health, Ageing and Retirement in Europe (SHARE) indicated that in the European Union in 2020, on average, 36% of people aged 65 and over suffered from at least two chronic diseases (ranging from 60% in Hungary to 17% in Malta) (Börsch-Supan, 2022). According to the database on the global burden of disease, in 2019, the most common reasons for death and disability-adjusted life years (DALYs) among population 70+ years old were ischemic heart disease (20.76% of total deaths and 15.33% of total DALYs) and stroke (15.29% of total deaths and 12.63% of total DALYs) (Institute for Health Metrics and Evaluation, 2019).

Fong (2019) argued that older adults who suffer from diseases considered as the "big four" including diabetes, cardiovascular diseases, cancer, and chronic respiratory diseases are at higher risk of becoming functionally disabled. Moreover, as people age, their physical and mental capacities decline (Jaul & Barron, 2017; Murman, 2015). Physiological and cognitive changes have an impact on functional independence, i.e., the ability to perform activities of daily living (ADLs) and cognitive tasks such as decision-making (Murman, 2015). The most recent data from SHARE indicated that in 2020, on average, 26% (the highest share in Hungary 42% and the lowest share in Malta 12%) of people aged over 65 in the European Union had at least one limitation in ADLs or instrumental activities of daily living (IADL) (Börsch-Supan, 2022). Besides, aging is also associated with geriatric syndromes such as frailty, sarcopenia and dementia that have substantial implications not only on the functioning of the patient but also on their quality of life as well as the life of informal caregivers (Sanford et al., 2020; Inouye et al., 2008).

For the reasons given above, older adults are more likely to be high users of health and social care services, and require care from multiple providers simultaneously. Moreover, they are more likely to move between different settings (Burt & McCaig, 2001, Oakes et al., 2011). These movements are recognized as high-risk scenarios for older adults and might result in poor quality of care and increased costs for health and care systems. Therefore, their optimization has been indicated as a policy priority (Burke et al., 2012; World Health Organization [WHO], 2016).

It has been widely discussed in the literature that care related factors can potentially influence the transitions of patients between settings (Coleman, 2003; Glasziou et al., 2012; Storm et al., 2014; Tsiachristas, 2016; WHO, 2016). This dissertation focuses on the organizational and financial aspects that affect the transition in LTC systems, and the challenges related to care transition in selected European countries. Moreover, the dissertation focuses on potential solutions for optimizing these transitions and assessing LTC systems in relation to such transitions. This introductory chapter defines the relevant key concepts and provides the general background on the topics included in the dissertation. The chapter also outlines the overall aim and research questions as well as the methodology approach applied in the dissertation.

1.2 KEY CONCEPTS

1.2.1 Care transition and transitional care

The main concept in this dissertation is care transition, which refers to a movement of the patient between the levels of care in one setting or between different settings. Care transitions might occur within settings (e.g. emergency department to inpatient ward), between the settings (e.g. hospital to sub-acute care), across health states (e.g. home to assisted living), and between the providers (e.g. acute care provider to palliative care specialist). Care transitions are often a result of changes in health status or dependency (WHO, 2016). Optimal care transitions are particularly important for older adults, as they are at a higher risk of breakdowns in care (Naylor et al., 2004). Therefore, avoiding unnecessary care transitions and improving quality of necessary care transitions is essential (WHO, 2016).

Another concept relates to transitional care. While the care transition refers simply to a movement of the patient, transitional care is a broad term for care interventions and is focused more on the care involved during that move (Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003). There is no uniform definition of transitional care. Nevertheless, according to the statement

of the American Geriatric Society from 2003, transitional care can be defined as "a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location. Representative locations include (but are not limited to) hospitals, sub-acute and post-acute nursing facilities, the patient's home, primary and specialty care offices, and long-term care facilities" (Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003, p. 556). In short, to optimize care transitions of patients, transitional care is needed.

Within the definition of transitional care, two concepts are often mentioned in the literature. These concepts refer to care coordination and care continuity. Care coordination can be defined as an intentional or deliberate approach to bringing together care professionals and providers involved in a patient's care with the aim of better addressing the needs of the service users (WHO, 2018). On the other hand, continuity of care refers to "the degree to which a series of discrete health care events is experienced by people as coherent and interconnected over time and consistent with their health needs and preferences" (WHO, 2018, p. 9). Care coordination and continuity of care are broad and closely related terms (WHO, 2018). Continuity and good coordination of care are global priorities necessary for optimal care transitions. Specifically, transitional care should be characterized by coordination and continuity. This is particularly relevant for patients with complex health and care needs.

As previously mentioned, continuity of care and good coordination of care will have an impact on care transitions. For instance, Barker, Steventon and Deeny (2017) found in their study that higher continuity might lower hospital admissions by 13%. Another study indicated that high continuity lowered emergency department visits by 27% (Ionescu-Ittu et al., 2007). Similarly, an observational study conducted by Hoyer et al.'s (2018) found that patients who received care coordination interventions were less likely to be rehospitalized within 30 days of discharge. In addition, a study carried out by Kern et al.'s (2020) demonstrated the relation between the self-reported gap in care coordination and preventable adverse outcomes. According to this study, older adults that reported gaps in care coordination had 55% greater adjusted odds of experiencing preventable outcomes. These findings are highly relevant for transitional care objectives of preventing readmission, shortening hospital stays and reducing delays in transition to post-acute care (WHO, 2018).

1.2.2 Integrated care and care transition

Adequacy of care transition closely depends on the integration between different care levels. Transitional care should be characterized by coordination and continuity,

which is the core of care integration, and thus, is closely related to integrated care (Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003). In conventional care delivery models, providers tend to work in silos and are not aware of care provided in other settings. This approach to care is however unsuitable for the needs of the aging population as it revolves around curative, specialist-led, and hospital-based services (Amelung et al., 2017). Care transitions in such care delivery models might suffer shortcomings. Alternative integrated care models can improve care transitions.

Integrated care is a concept that is widely discussed in relation to health and care systems around the globe. The concept of integrated care itself is not new and has been known for decades, and became even more prominent in 1970s (Amelung et al., 2017). There is no uniform definition of integrated care and there are plenty of other terms, such as 'coordinated care', 'collaborative care' etc. that are used by various researchers (Armitage et al., 2009). Integrated care is defined, interpreted, and understood differently by different stakeholders, as suggested by Shaw, Rosen and Rumbold (2011) who presented different perspectives on integrated care. These perspectives included, among others, the perspective of a provider, regulator and service user/carer. Nonetheless, the perspective of the patient is at the heart of any discussion about integrated care.

There are several distinct differences between conventional care delivery model and integrated care model (Amelung et al., 2017). As an example, conventional care focuses merely on illness and cure, while integrated care provides the patient with holistic care that aims to improve individual health and wellbeing. Moreover, in conventional care, the relationship between the patient and the caregiver is limited to the moment of consultation. In integrated care, the care is provided continuously not only to the patient but also to the families and communities across the life course. In addition, in conventional care, the responsibility of the care provider is limited only to effective and safe advice to the patient in his/her practice. On the other hand, within integrated care, there is shared responsibility and accountability (WHO, 2018). Moving towards integrated care requires changes in funding, management and provision of health and care services (Amelung et al., 2017).

The main aim of integrated care is to improve quality and safety of care services through coordination (Goodwin, 2016). Similarly, transitional care is focused on improving quality and safety of care transitions by ensuring continuity and coordination of health care. Transitional care is a part of integrated care as it happens over a prolonged duration of care episodes (Reed et al., 2005). It has

been debated that without people-centered integrated care, it will be impossible to reduce fragmentation, inefficiency, and unsustainability in health care (Amelung et al., 2017). Specifically, the problem of fragmentation and inefficiency of care is highly relevant in relation to care transitions.

1.2.3 The care provision aspects and care transition

There are several care provision aspects that have been known to affect the care transitions of older adults. A study conducted by Li, Young and Williams (2014) suggested a few root causes for suboptimal care transitions, among others, poor provider communication as well as ineffective patient and caregiver education. Similarly, other international studies considered these challenges as important and also suggested other aspects that affect care transitions, namely, transfer of information, coordination of resources, training and education of staff and patient and caregiver engagement and education (Cameron et al., 2013; Hastings & Heflin, 2005; Naylor et al., 2017; Storm et al., 2014; WHO, 2016). Besides, Cameron et al.'s (2013) indicated that organizational issues such as lack of strong management/ appropriate professional support and adequate resources, cultural/professional issues such as different professional philosophies, ideologies and contextual issues, including financial uncertainty, might undermine integrated work between health and social care services. Ultimately, these aspects will have an impact on care transitions of patients. Therefore, addressing these aspects is essential to ensure positive health outcomes.

Besides that, financial aspects might also play an important role and affect care coordination and care transitions (Tsiachristas, 2016). Traditional payment models, including activity-based payments, might provide weak incentives to coordinate care across different providers. Thus, there is a need for alternative payment mechanisms that might stimulate the integration of care (Stokes et al., 2018). Integration of services within and across the health and social sector is essential for optimal care transitions. Some payment methods are less likely than others to result in care integration (Tsiachristas, 2016). For instance, Fee-for-Service (FFS) is a type of payment to reimburse single isolated organizations per visit/per procedure and thus, disincentivize care integration (Tsiachristas, 2016).

It has to be emphasized that concepts such as care provision aspects, integrated care, coordinated care and care continuity are closely related and might influence care transitions. It can be argued that care provision aspects will influence on whether the provision of integrated care is possible. Subsequently, integrated care approaches are aimed at increasing care coordination and continuity of care. Last but not least, coordination and continuity of care are vital for optimized care transitions.

1.3 BACKGROUND AND MOTIVATION

1.3.1 LTC systems in Europe

This dissertation takes the perspective of care transitions in European LTC systems. LTC involves medical and non-medical services and support provided to individuals with reduced intrinsic capacity, such as reduced physical and/or cognitive capacity, who are not able to perform ADL independently for a prolonged period (Colombo et al., 2011). On the other hand, the term LTC system refers to all organizations, providers, individuals, and actions with the main aim to promote, maintain or improve the wellbeing, health, and functional ability for individuals with limitations in intrinsic capacity (WHO, 2022). In addition, the functioning of LTC systems is crucial for ensuring basic rights, fundamental freedoms and human dignity of people with dependency.

Aging of the population is one of the key challenges of the countries in Europe that threatens the sustainability of LTC systems. Financial and organizational pressures are one of the most widely discussed topics when it comes to sustainability (Mosca et al., 2017). It is questionable whether countries will be able to uphold high-quality care and high inclusion rates while upholding financial viability.

Even though countries experience, to a certain extent, similar LTC challenges, like aging and sustainability, no two LTC systems in Europe are alike. The organization and financing of LTC systems in Europe vary significantly, even among countries with similar demographic profiles (Neubert et al., 2019, Ariaans, Linden & Wendt, 2021). For example, even though it can be argued that the demographic profiles of the Netherlands and Poland are similar to a certain extent, their LTC systems are not and belong to different typologies (Eurostat, 2023a; Eurostat, 2023b; Ariaans, Linden & Wendt, 2021).

In addition, many European countries experience institutional and geographical fragmentation of LTC provision (Spasova et al., 2018). For instance, in many countries, there is a horizontal split between the health and social sectors (e.g. Austria, Germany, Spain). As a result, LTC provision in these countries is rather fragmented and lacks integration between the health and social aspects of LTC. Only a few countries integrate health and social care horizontally, and these countries include, for instance, Denmark, Ireland and Portugal (Spasova et al., 2018).

The differences between the LTC systems might also be reflected in the extent to which governments and other actors, such as informal caregivers, are involved (Colombo et al., 2011). For instance, in certain Southern and Eastern European

countries e.g. Italy and Poland, informal caregivers provide the vast majority of LTC services. In countries such as Greece, Hungary and Poland, formal home care services and residential care facilities for older adults are underdeveloped (Spasova et al., 2018). On the other hand, Scandinavian countries, including Denmark, Sweden, and Western European countries, such as the Netherlands, are characterized by a high degree of care provided formally (Spasova et al., 2018). Nonetheless, the supply of residential care facilities has been reduced over the past years due to austerity measures and policies aiming at deinstitutionalization (Spasova et al., 2018).

There are also huge disparities between the countries in terms of the support provided to informal caregivers. For instance, countries vary in terms of compensating and recognizing informal caregivers. Some countries provide cash benefits that are paid directly to the informal caregiver (e.g. Finland), while others provide cash benefits, also known as cash-for-care schemes, that are paid to the care recipient (e.g. Sweden). There are also countries that use both of these solutions (e.g. the Netherlands and Sweden) (Mutual Information System on Social Protection [MISSOC], 2019). Besides that, countries also differ in the extent of support provided to informal caregivers through labor market policy, respite care and counseling services.

In addition, the European LTC systems differ in terms of mobilization of financial resources. Some countries rely on taxes to finance LTC (e.g. Scandinavian countries), while other countries mobilize the resources through social insurance in the form of compulsory LTC insurance (e.g. Germany). On the other hand, for instance, the Netherlands uses a combination of both (Neubert et al., 2019).

1.3.2 The context of the dissertation

This dissertation explores the care transition by taking into account the diverse context of LTC in Europe. Specifically, the focus of this dissertation is on care transitions within the German, Dutch and Polish LTC systems. These countries were selected as they represent three distinctive typologies of LTC systems in Europe. In particular, the three systems greatly differ in the way LTC is organized and financed. Yet, on the other hand, those three countries are faced with similar challenges related to the aging population. As a result, studying these countries allows a broader perspective of barriers and facilitators affecting the care transitions of older adults.

To better understand the context, we briefly compare the population characteristics and LTC characteristics of the three countries. In terms of population characteristics, the highest share of the population aged 65 and over and 80 and over can be found

in Germany and the lowest in Poland (The Organization for Economic Cooperation and Development [OECD], 2021). However, it is important to note that the Polish population is aging faster than the German and Dutch populations, among others, due to declining birth rates. In 2021, in Poland, there were 1.33 live births per woman, while in the Netherlands and Germany, 1.62 and 1.58 live births per woman, respectively (Eurostat, 2023c). The highest percentage of older adults with ADL limitations can be found in Poland (51% of older adults aged 65 and over), where 33% of these individuals declared some limitations, while 18% declared severe limitations. On the contrary, only 36% of German older adults declared some or severe limitations related to ADL (Eurostat, 2023b). More detailed information on the population characteristics of these countries can be found in Table 1.1.

Table 1.1 Comparison of LTC systems in Germany, the Netherlands and Poland

		Germany	The Netherlands	Poland
Population characteristics				
Life expectancy at age 65 (2019), in years		19.9	20.2	18.3
Share of the population aged 65 and over (2019)		21.5%	19.1%	17.7%
Share of the population aged 80 and over (2019)		6.5%	4.6%	4.4%
Limitations in daily activities in adults aged 65 and over (2019)	Some limitations	23%	40%	33%
	Severe limitations	13%	9%	18%
LTC system characteristics				
Typology		Private supply system	Need-based supply system	Residual public system
Total LTC spending as a share of GDP (2019)		2.2%[1]	4.1%	0.4%[1]
Formal LTC workers per 100 population aged 65 and over (2019)		5.4	8	<1
LTC care beds in institutions and hospitals per 1000 population aged 65 and over (2019)		54.2	74.0	11.5
LTC recipients aged 65 and over receiving care at home (2019)		77%	65%	Data not available

[1]Countries not reporting spending for LTC (social)
Source: Author's compilation based on The Organization for Economic Cooperation and Development [OECD] (2021), Eurostat (2023) and Ariaans, Linden & Wendt (2021)

Polish LTC system can be defined as the residual public system, the same as the Czech and Latvian LTC systems. This typology is characterized by low levels of supply (Ariaans, Linden & Wendt, 2021). As presented in Table 1.1, in 2019, Poland's LTC expenditure as a share of GDP was 0.4%, one of the lowest in Europe. In addition, Poland has one of the lowest number of LTC beds (11.5 per 1000

population aged 65 and over), and LTC workers (less than one formal LTC worker per 100 population aged 65 and over) in Europe and OECD countries (OECD, 2021).

On the other hand, the German LTC system can be categorized as a private supply system, like among others, the Finish system (Ariaans, Linden & Wendt, 2021). It is characterized by the medium to high level of supply. The total LTC expenditure as a share of GDP in 2019 was 2.2%, the number of LTC beds was 54.2 per 1000 population aged 65 and over, and the number of formal LTC workers per 100 population aged 65 and over was 5.4 (OECD, 2021)

The LTC system in the Netherlands has been defined as a need-based supply system, the same as the Australian, Belgian and Swiss LTC systems (Ariaans, Linden & Wendt, 2021). It is characterized by a high level of supply. In 2019, in the Netherlands, the total LTC expenditure as a share of GDP was 4.1%, the highest among European countries. Similarly, the number of LTC beds 74.0 per 1000 population aged 65 and over was one of the highest in Europe. In addition, there were around eight formal LTC workers per 100 population aged 65 and over (OECD, 2021)

Given the diversities and similarities between the three LTC systems, they provide a relevant base for a comparison taking the perspective of care transition. Such comparison is important to understand better the role of organizational and financial aspects of LTC and how they influence care transitions.

1.3.3 The motivation for the dissertation

The research presented in this dissertation was conducted alongside the project Transitional Care Innovation in Senior Citizens (TRANS-SENIOR), funded by the European Union. The TRANS-SENIOR project is designed to train health care innovators who will shape future care for senior citizens. The research within the TRANS-SENIOR project focuses on avoiding unnecessary care transitions and improving care transitions that are necessary. In line with the TRANS-SENIOR project, this dissertation presents organizational and financial aspects of LTC systems in Europe that affect the care transitions of older adults.

The need to improve care transitions is the primary motivation for the TRANS-SENIOR project and this dissertation. Suboptimal care transitions in LTC systems are common and thus, improving quality of health services and patient safety has become a global priority (WHO, 2016). Poor quality or unnecessary care transitions might result in compromised patient safety, outcomes and rehospitalizations (Forster et al., 2003; van Walraven et al., 2011; Jasinarachchi et al., 2009). Jencks, Williams and Coleman (2009) found that rehospitalizations among older adults are associated with gaps in

follow-up care. In addition, a study carried out by Kapoor et al.'s (2019) reported the high prevalence of adverse events (approximately 37.3% of all discharges) among LTC residents transitioning from hospital to nursing home. As stated by the authors, majority (70.4%) of those adverse events could have been prevented.

The current state of knowledge on the organizational and financial aspects of care transitions in European countries is sparse, and in some cases, the conclusions are ambiguous. Especially, there are no studies that would systematize the knowledge and provide an overview of organizational and financial aspects relevant to care transitions. In addition, little is known about what different stakeholders consider important barriers and facilitators to care transitions in LTC systems.

Understanding which organizational and financial aspects are related to care transitions in LTC systems is an important starting point as it might help health care managers, providers, insurers, and policymakers to develop strategies aiming at the optimization of care transitions. Particularly, knowing which financial aspects are relevant for care transitions might lead to the development of tailored financial incentives that have the potential to stimulate care coordination and, thus, improve care transitions. Moreover, understanding the experiences and perspectives of different stakeholders involved in care transitions might directly point to the key issues in the LTC system in a given country. Stakeholders involved in the care transition are also an important source of information on what is needed and what are the best practices.

Last but not least, there are no assessment tools dedicated to measuring the performance of LTC systems in relation to care transition. Such assessment tools would help policymakers to monitor, evaluate and compare the care transition in their LTC systems. Having a complete picture of the performance, especially challenges and gaps in the LTC system, are essential to inform evidence-based policymaking. Understanding which organizational and financial aspects affect care transitions in a specific country (like Germany, the Netherlands and Poland in this dissertation) is necessary for the development of tailored strategies and, therefore, for improving the quality of care transitions.

1.4 OVERALL AIM, RESEARCH QUESTIONS AND METHODS

As explained in the previous section, understanding organizational and financial barriers and facilitators that affect care transitions in LTC systems is crucial given

unfavorable outcomes associated with suboptimal care transitions experienced by older adults at present. A systematic exploration of this topic is, however, lacking at present.

This dissertation aims to identify which organizational and financial aspects affect care transitions and to inform the improvement of care transitions by identifying good practices as well as challenges that need to be addressed, in particular in the LTC systems of Germany, the Netherlands and Poland. Moreover, this dissertation aims to develop an assessment tool for assessing the performance of LTC systems in relation to care transition.

In view of these aims, a model that systematizes the knowledge regarding the organizational and financial aspects affecting care transitions is developed in the dissertation. This model is tested throughout the dissertation, particularly when analyzing the challenges regarding care transitions in Germany, the Netherlands and Poland. In addition, this model is used to develop an assessment tool for assessing the performance of LTC systems in relation to care transition. Overall, five research questions are addressed in the dissertation:

> **Question 1.** What is current knowledge regarding care provision aspects affecting care transition in LTC systems?

This research question focuses on reviving existing evidence on care provision aspects that affect care transitions in LTC systems. As mentioned previously, the relation between the care provision aspects and their influence on care transition has been widely studied in the literature. Specifically, organizational aspects such as coordination, communication and transfer of information were the focus of many researchers worldwide (Kripalani et al., 2007; Meador et al., 2011; Storm et al., 2014). Besides that, financial aspects and their possible influence on care transition/care coordination have also been acknowledged in some studies (Glasziou et al., 2012; Tsiachristas, 2016). Nevertheless, no systematic review has been carried out on the topic to synthesize available studies. Thus, to gain general insight into care provision aspects that might affect care transitions in the LTC system, a systematic literature search is performed. The identification and classification of the relevant literature provided a base for future reviews. Findings are also used to develop a model of organizational and financial aspects affecting care transitions, which model is tested throughout the dissertation and serves as a guiding framework for subsequent studies in this dissertation.

> **Question 2.** What are the financial aspects that affect care transition

of older adults in LTC systems, and what is their influence on care coordination?

This research question focuses on reviving available evidence on financial aspects that might influence the care transition of older adults in LTC systems. It builds on the review of care provision aspects (see Question 1). The role of financial aspects, and specifically financial incentives, is widely studied by economists. For instance, based on the assumptions coming from principal-agent theory, financial incentives might have an impact on the quality and quantity of care (Jensen & Meckling, 1976). Different techniques for financing providers and their possible impact on the nature and quality of care services are explored in relation to this research question. Understanding financial aspects and their impact on care coordination and care transition is essential to stimulate the integration of providers and promote effective chronic care (Tsiachristas, 2016). Even though some of the financial aspects are discussed throughout the literature, a systematic literature review synthesizing relevant studies on financial aspects affecting care transitions was lacking. On the one hand, available studies focus on specific financial aspects such as pay-for-performance, pay-for-coordination or penalties (Arbaje et al., 2014; Carnahan, Unroe & Torke, 2016; Chen, Oldenburg & Hsueh, 2021; Struckmann et al., 2017; van Herck et al., 2010). However, studies do not specifically focus on older patients but rather on the general population (Tsiachristas, 2016; Tsiachristas et al., 2013). For the reasons given above, the systematic literature review is carried out to gain general insight into financial aspects affecting the care transition of older adults in the LTC system. The method of directed content analysis was used to perform the analysis of the publications. The findings from the review are used to identify the settings in which these financial incentives have been applied to synthesize their reported influence on care coordination.

Question 3. What are the different policies encouraging informal care in European LTC systems and what is their influence on care transitions?

This research question focuses on providing an overview of different policies encouraging informal care in European LTC systems. Majority of LTC in Europe is provided by informal caregivers (Verbeek-Oudijk et al., 2014). Furthermore, over the past years, some European countries have tried to encourage the provision of informal LTC, specifically in Western European countries. Informal caregivers provide medical and non-medical assistance and care to older adults who stay at home and are in need of LTC (Triantafillou et al. 2010). Nevertheless, their role is not only limited to caring tasks. Informal caregivers also play a significant role

in care transitions of older adults (Coleman et al., 2006; Hahn-Goldberg et al., 2018; Sokas et al., 2021). Moreover, the vast amount of literature confirms that involving informal caregivers is essential to promote high-quality and patient-centered care (Hahn-Goldberg et al., 2018; Mitchell et al., 2018; Storm et al., 2014; Toscan et al., 2012). On the other hand, unsupported and unprepared informal caregivers might experience negative effects of caregiving, such as worsening health, wellbeing, and employment opportunities. Lack of supporting strategies for informal caregivers might impact care-recipient's quality of life and quality of care and increase their likelihood of suboptimal care transitions (Hahn-Goldberg et al., 2018). Understanding how informal care might affect the caregiver, care recipient and, in general, LTC provision and care transition is crucial for creating successful policies that protect those who provide and receive LTC. Besides, the identification of existing policies and disparities existing in the level of support provided to informal caregivers is important information to policymakers. Therefore, the commentary presented in this dissertation outlines the arguments for and against integrating programs and policies that encourage informal care in European LTC systems and presents a comprehensive picture of the support provided to informal caregivers. In addition, disparities in the level of support provided to informal caregivers across the European Union (EU) are presented.

> **Question 4.** What are the organizational and financial aspects that affect care transitions in the LTC systems in Germany, the Netherlands and Poland?

The next research question focuses on organizational and financial aspects that affect care transitions in LTC systems in Germany, the Netherlands and Poland. Improving the safety of care transitions is an international priority (Burke et al., 2012). Nevertheless, optimizing care transitions is a challenging process that requires the implementation of strategies at the macro (health care system, LTC system), meso (health service organization) and micro (service delivery) levels (WHO, 2016). Understanding the context and reasons for suboptimal care transitions is essential to develop and implement strategies at different levels and thus, to optimize care transitions (Fakha et al., 2021; WHO, 2016). The model developed for the first research question using the systematic literature review indicates that organizational and financial aspects play an important role in care transitions. Therefore, they are investigated in more detail for this research question focusing on the three countries. None of the previous studies offered in-depth understanding of country informants' experiences and opinions regarding organizational and financial aspects that affect care transitions in LTC systems. Available studies focused either on specific type of care transition (Carman, Fray &

Waterson, 2021; Fitzpatrick & Tzouvara, 2019; Flierman et al., 2020) or on aspects affecting the implementation of transitional care services (Fakha et al., 2021; Jeffs et al., 2013). For the reasons given above, in-depth semi-structured interviews are conducted among key informants in Germany, the Netherlands and Poland to explore organizational and financial challenges in care transition in LTC system in those countries. Purposive sampling method is used to identify country key informants that represented either providers from primary care, hospital, LTC or insurers/payers. Data are analyzed using the method of qualitative content analysis, deductive-inductive approach. Results of this study highlight different barriers and facilitators to care transitions in three countries.

> **Question 5**. How to assess the performance of LTC systems in relation to care transition?

The findings for the previous questions are used to develop an assessment tool. In particular, this research question focuses on how to assess the performance of LTC systems in relation to care transition. Measuring the performance of health systems is a crucial step in improving the performance of the system. To implement change in the form of reform, stakeholders such as managers and policymakers need a solid understanding of how the system is performing (Smith et al., 2010). Therefore, in order to improve care transitions of older adults in LTC systems, there is a need for an assessment tool. Existing tools and measures do not assess care transitions as part of LTC system but rather focus on selected aspects related to care transition (e.g. discharge planning) or focus on care transition between specific settings (e.g. hospital to home). Thus, this research question is addressed by the development of an evaluation tool for assessing the performance of LTC systems in relation to care transition named Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC). The TCAT-LTC tool is developed in three steps based on guidelines on scale development proposed by DeVellis (2003). The steps involve: the development of the conceptual model, item pool generation, and preliminary validation of the tool. Findings for previous research questions are important sources of information in building the item pool. The assessment tool presented in this dissertation is the first tool to assess the performance of LTC systems in relation to care transition.

1.5 STRUCTURE OF THE DISSERTATION

After this introductory **Chapter 1**, the following chapter, **Chapter 2** presents the protocol and preliminary findings of the systematic literature search on key care provision aspects that affect care transition in the LTC systems. The chapter

addresses Question 1. It describes and classifies the relevant literature found in the review with the purpose of providing a base for further full systematic reviews and outlining a model of organizational and financing aspects that affect care transition.

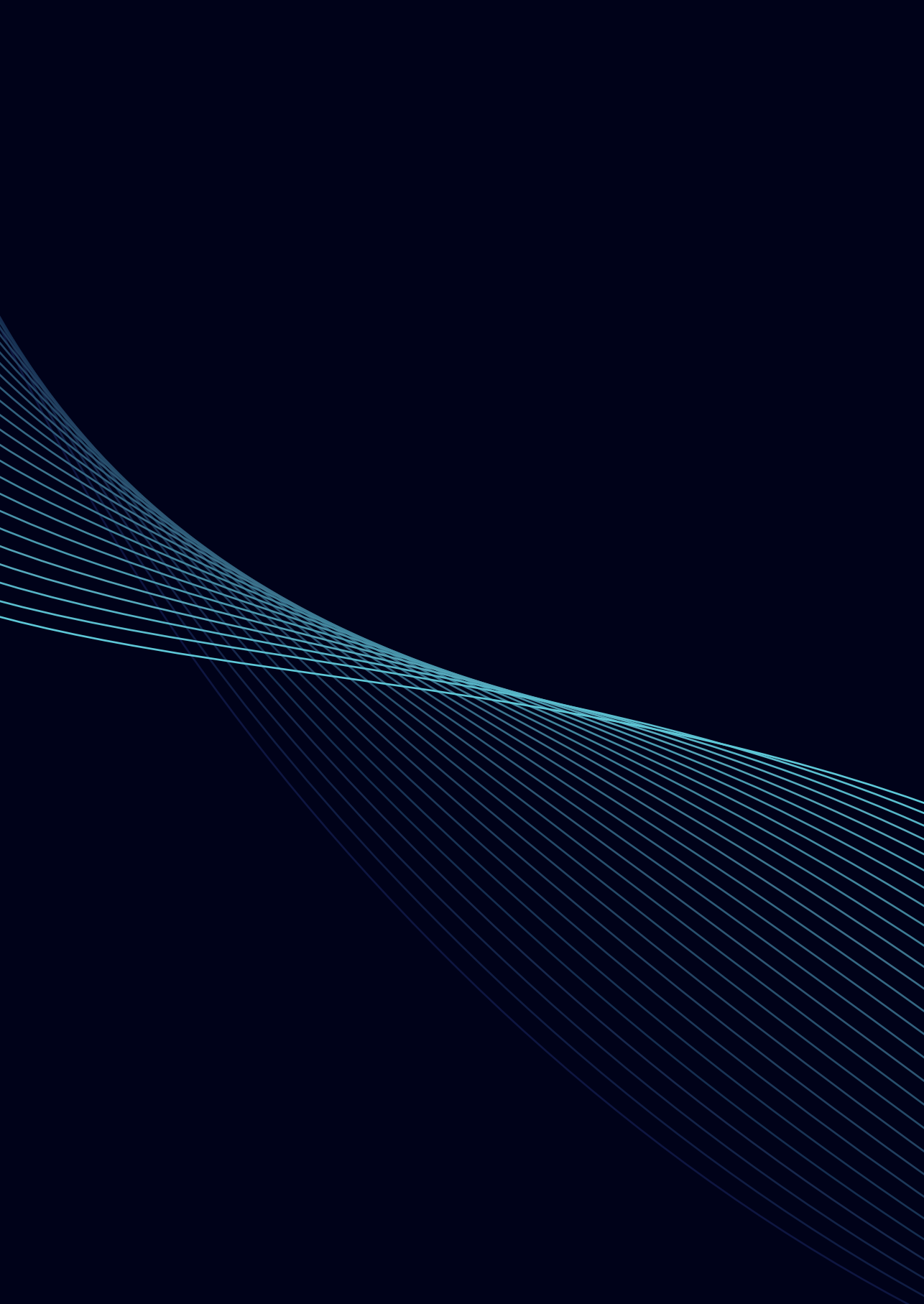
Chapter 3 addresses Question 2. The chapter presents a review of evidence on financial aspects that might influence care transition in LTC among older adults. Tthe settings in which these financial aspects have been applied and their impact on care coordination are also investigated.

Next, **Chapter 4** outlines arguments for and against integrating programs and policies that encourage informal care in European LTC systems and thus addresses Question 3. In addition, different strategies that may remediate the negative effects of informal caregiving and ultimately improve the quality of life of informal caregivers are presented. Besides, this chapter elaborates on the importance of supporting informal caregivers and its influence on care transition experienced by older adults.

Chapter 5 presents a qualitative study on organizational and financial aspects that affect care transitions in LTC systems in Germany, the Netherlands and Poland. Furthermore, it informs the improvement of the care transitions in LTC in those countries. The investigation in this chapter addresses Question 4.

Chapter 6 describes the development of an evaluation tool for assessing the performance of LTC systems in relation to care transitions, which addresses Question 5. In this chapter, the details of the methods used to develop the Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC), as well as the tool itself and the guide on how to apply it, are presented.

Chapter 7 entails the discussion of the main findings and the summary of the dissertation. The chapter also presents the recommendations and suggestions for future policy and research, and methodological reflections related to this dissertation.



CHAPTER 2

Key Care Provision Aspects That Affect Care Transitions in Long-Term Care Systems: Preliminary Review Findings

This chapter draws upon:

Wieczorek, E., Kocot, E., Evers, S., Sowada, C., & Pavlova, M. (2022b). Key care provision aspects that affect care transition in the long-term care systems: Preliminary review findings. International Journal of Environmental Research and Public Health, 19(11), 6402.

ABSTRACT

Background

Care transitions come with a risk of negative health and quality-of-care consequences, and should be avoided or optimized when possible. The aim of this chapter is to present the protocol and preliminary findings of a systematic review on key aspects of care provision that affect care transition of older adults 60+ within the long-term care systems. This chapter describes and classifies the relevant literature found in the review with the purpose to provide a base for further full systematic reviews, and to outlines a model of organizational and financing aspects that affect care transition.

Methods

The search was conducted in MEDLINE, EMBASE and CINAHL on 2 March 2020, before the Coronavirus Disease 2019 pandemic. The protocol was registered at the International Prospective Register of Systematic Reviews (number: CRD42020162566).

Results

Ultimately, 229 full-text records were found eligible for further deliberation. We observed an increase in the number of publications on organizational and financial aspects of care transition since 2005. Majority of publications came from the United States, United Kingdom and Australia. In total, 213 (92%) publications discussed organizational aspects and only 16 (8%) publications were related to financial aspects. Records on organizational aspects were grouped into the following themes: communication among involved professional groups, coordination of resources, transfer of information and care responsibility of the patient, training and education of staff, e-health, education and involvement of the patient and family, social care, and opinion of patients. Publications on financial aspects were grouped into provider payment mechanisms, rewards and penalties.

Conclusions

Overall, the search pointed out various care provision aspects being studied in the literature, which can be explored in detail in subsequent full systematic reviews focused on given aspects. In this chapter we also present a model based on the preliminary findings, which enables us to better understand what kind of provision aspects affect care transition. This model can be tested and validated in subsequent research.

2.1 BACKGROUND

Over the past decade, the concept of transitional care (i.e., actions designed to ensure safe and timely transition of patients between different levels of care) received widespread attention from clinicians, researchers, health system leaders, and policymakers particularly (Coleman, 2003; Naylor & Keating, 2008). This is due to the increasing evidence suggesting a correlation between the number of patient handovers, and medical errors or adverse events (Aase et al., 2013; Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003; Naylor et al., 2017) A care transition occurs when a patient moves from one care setting to another (either formal or informal care setting), and it is often a result of a change in health status or dependency (Naylor & Keating, 2008).

2.1.1 Consequences and reasons for suboptimal care transitions

Care transitions come with a risk of negative health and quality-of-care consequences, and should be avoided or optimized when possible. Particularly, older adults with complex health issues such as chronic diseases, physical disabilities and/or cognitive impairments, and poly-pharmacy are more likely to undergo multiple transitions and are at high risk for complicated care transitions (Naylor & Keating, 2008, Oakes et al., 2011). Poor transitions have been associated with an increase in adverse events, duplication of services, preventable readmissions to hospital, patient and provider dissatisfaction, and even increased morbidity and mortality (WHO, 2016). Moreover, poor "handoff" of older patients leads to an increase in health care spending for payers, and a significant financial burden for patients (Wo. Providing high-quality care and effective management of transitions are essential for good clinical outcomes and reduction of avoidable health care costs (Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003; Institute of Medicine (US) Committee on Quality of Health Care in America, 2001; WHO, 2016).

Poorly managed transitions are often a result of fragmentation of care, lack of follow-up care, confusion about medication and inadequate preparation of the patient and their caregiver for the transitional care (Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003; Coleman & Berenson, 2004). Additionally, factors such as communication and information issues, inaccuracies in information exchange, and ineffective planning or coordination of care between care providers, may also compromise the quality of transitions and may result in discontinuity of care (Elder & Hickner, 2005; Kripalani et al., 2007; Schoen et al., 2006).

Policies and financing often focus on care in specific settings only, and neglect quality of care during transitions between the settings (Naylor & Keating, 2008; Parry et al., 2008). Furthermore, physicians and other clinicians tend to restrict their practices to a single setting without taking responsibility for care coordination across the continuum (Snow et al., 2009). That is why it is crucial for governments to address the issue of transitional care by focusing on key care provision aspects, as suggested by researchers (Coleman, 2003; Hastings & Heflin, 2005; Storm et al., 2014).

2.1.2 What is known about optimizing care transitions

Literature suggests that in order to ensure quality in transitional care, it is vital to address the care provision aspects that can influence care transition (Coleman, 2003; Hastings & Heflin, 2005; Storm et al., 2014). These care provision aspects can be broadly divided into organizational and financing aspects.

Regarding the organizational aspects, for example, the World Health Organization (2016) argues that the organizational culture and other organizational aspects, such as communication between providers, play an important role in improving care transitions. There is a general agreement that such organizational components are vital to ensuring quality in transitional care because, currently, most professionals function in silos (Storm et al., 2014).

Similarly, regarding the financial aspects, there is an agreement that financing aspects (such as rewards and penalties) also play a significant role in care transition, as they may stimulate immediate and long-term improvements in performance (Glasziou et al., 2012). Appropriate financing mechanisms are necessary for effective care transitions (Stokes et al., 2018; Tsiachristas, 2016). According to researchers, addressing these financial aspects of care may result in improved transitions and better care coordination (Tsiachristas, 2016; Struijs, Van Til & Baan, 2010).

2.1.3 Why focusing on care provision aspects as factors of care transition

Although the literature indicates the possible relation between the care provision aspects and transitional care, currently, there is no review to provide an overview of these aspects. It is therefore unclear which aspects of care provision affect the care transition and could be the subject of future research. Such a review could be a helpful starting point in future qualitative and quantitative studies on transitional care in a given LTC system. To clarify this issue, we carried out a review to gain general insight into this topic and provide recommendations for future research. We included both formal settings (care and health care institutions) and informal

settings (patients' home). Thus, the review included transitions between formal-informal, informal-formal and formal-formal settings. We excluded care provision aspects that affect transitional care within the same location. We focused the review on care for older adults 60+.

The aim of this chapter is to present the protocol and preliminary findings of the review focusing on care provision aspects that affect care transition in LTC systems. By identifying and classifying the relevant literature in this brief report, we provide a base for further full systematic reviews focused on a given aspect of care. We also use the preliminary findings to outline a model of organizational and financing aspects that affect care transition. Such model can be a starting point in future qualitative and qualitative exploration where it can be tested and validated. This can be especially valuable for future research since such a model does not exist at the moment.

2.2 METHODS

The protocol for this review has been registered in the International Prospective Register of Systematic Review (PROSPERO) under identification number CRD42020162566. The detailed protocol can be found in Appendix A1. We followed PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to minimize the potential bias. Below, the search strategy is briefly presented.

Sources: The search was conducted in Medical Literature Analysis and Retrieval System Online (MEDLINE), Excerpta Medica Database (EMBASE) and Cumulated Index to Nursing and Allied Health Literature (CINAHL) on 2 March 2020.

Keywords: The keywords selection and exact keywords for each database can be found in Appendix A1.

Inclusion criteria: Studies were eligible if their focus was on transitional care between the settings among older adults 60+. Moreover, studies had to report on financial and/or organizational aspects of care transition in the LTC systems. Studies were excluded if they reported on financial and/or organizational aspects of care transition within the setting, their focus was on individuals younger than 60 years old or focused on palliative, hospice or end-of-life care. Furthermore, we included studies with primary study designs and excluded non-primary research publications.

Selection process: All references identified by the overall search queries were managed in Mendeley. The selection process is presented in Figure 2.1. The search in the databases yielded 8342 records. After removing duplicates, 8228 publications were included in the initial screening. After reviewing the titles and abstracts, 7497 publications were excluded as they did not meet the inclusion criteria. A fraction (10%) of excluded publications was independently reviewed by a second reviewer to verify the exclusion procedure. In total, 731 publications were included for the screening based on full text. Ultimately, 229 records were included for further deliberation.

Analysis: Afterwards, publications were divided into: general organizational aspects, organizational disease/condition-specific aspects and financial aspects. Further details on the review and analysis are presented in Appendix A1. We report here the results of the overall preliminary analysis. The results of the subsequent full systematic review on financial aspects are presented in Chapter 3. Other full systematic reviews can be carried out, focusing on the different organizational aspects.

2.3 RESULTS

The overall search of the databases yielded 8342 publications. After removing duplicates, 8228 publications were included in the initial screening (see flowchart, Figure 2.1).

After reviewing the titles and abstracts, 7497 publications were excluded, as they did not meet the inclusion criteria. In total, 731 publications were included for the screening based on full text. The number of excluded full-text articles with reasons is presented in Figure 2.1. Publications were then divided by topic: organizational and financial aspects.

The literature identified in the search indicated multiple care provision aspects that may affect care transition, namely various organizational and financial aspects. Figure 2.2 presents a model with a classification of these organizational and financial aspects. Organizational aspects include communication among involved professional groups, transfer of information and care responsibility of the patient, coordination of resources, training and education of staff, education and involvement of the patient and family, e-health and social care. Moreover, some studies focused on financial aspects, particularly provider payment mechanisms, rewards and penalties. Figure 2.3 presents the number of studies published from 2005 until 2018.

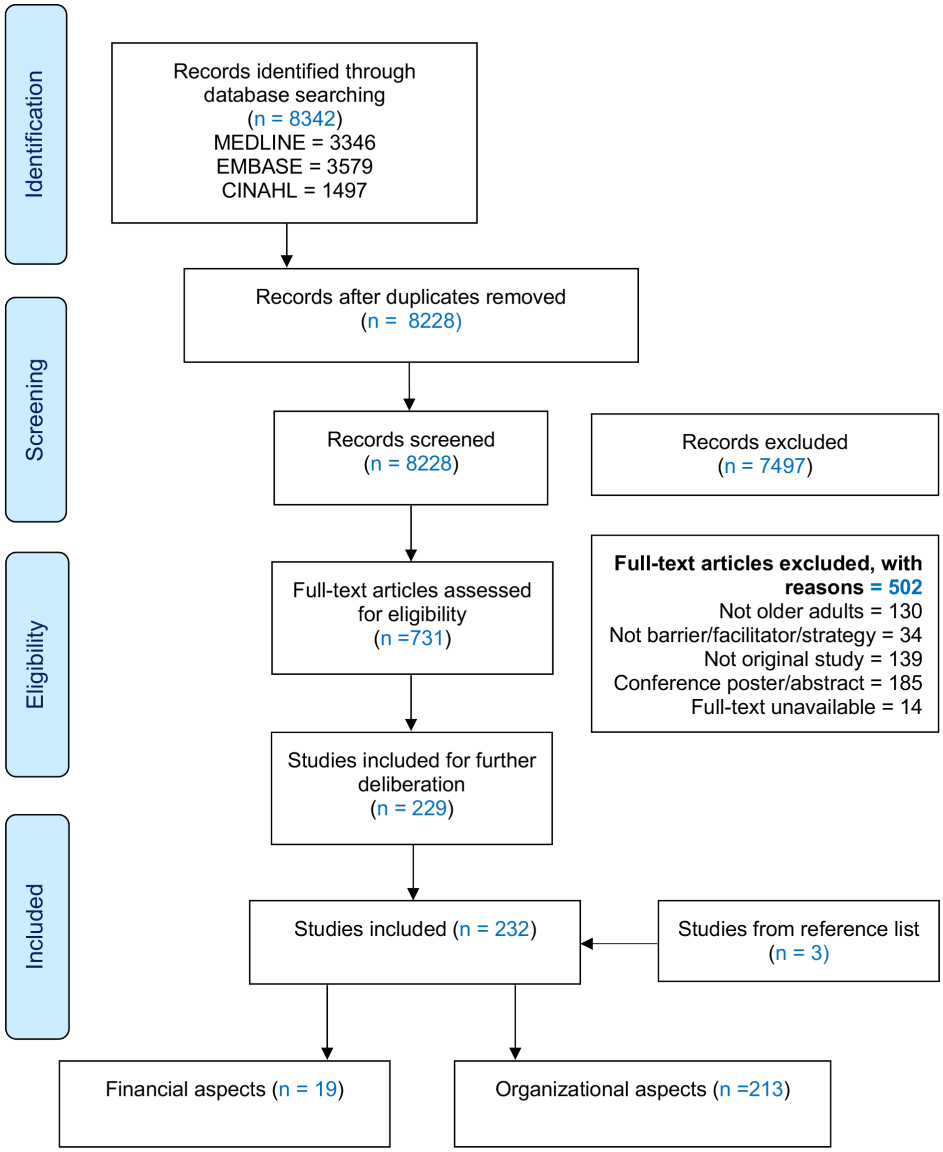


Figure 2.1 Stages of the selection process
Based on: Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS Medicine*, *6*(7).

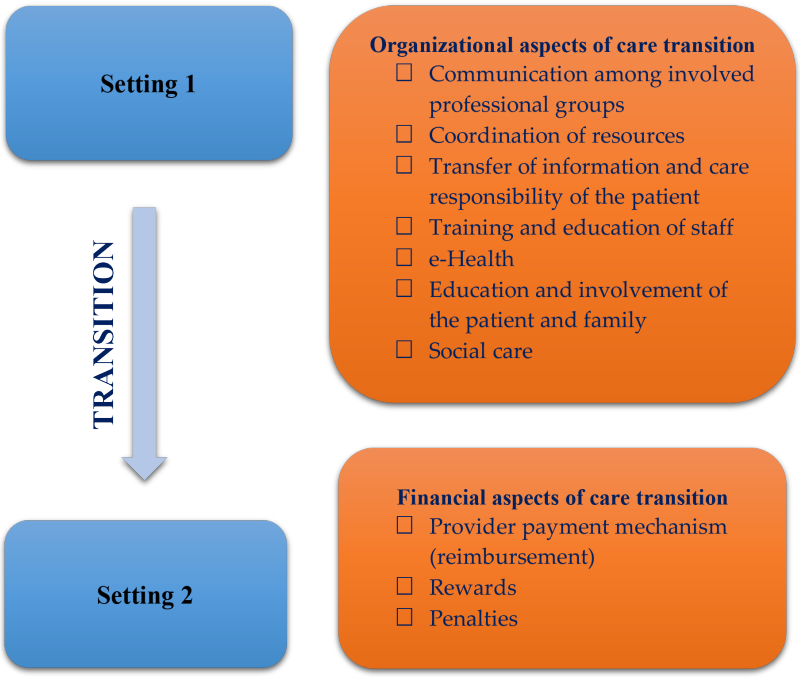


Figure 2.2 Care provision aspects that affect care transition

Organizational aspects include communication among involved professional groups, transfer of information and care responsibility of the patient, coordination of resources, training and education of staff, education and involvement of the patient and family, e-health and social care. Moreover, some studies focused on financial aspects, particularly provider payment mechanisms, rewards and penalties. Figure 2.3 presents the number of studies published from 2005 until 2018.

As seen in the figure, the number of publications on care provision aspects, namely organizational and financial aspects, that affect care transition has been steadily increasing since 2005. Most studies identified (165 publications; 72%) have been published between 2011 and 2018. Between 2016 and 2018, the number of publications doubled, from 17 publications in 2016 to 34 publications in 2018, indicating an increased interest in care transition and care coordination. At the moment when this review was performed, there were 12 publications in 2019 and 0 publications in 2020. However, the numbers for those years might be incomplete since some publications might have still been in preparation. Figure 2.4 presents the origin of publications related to care provision aspects that affect care transition.

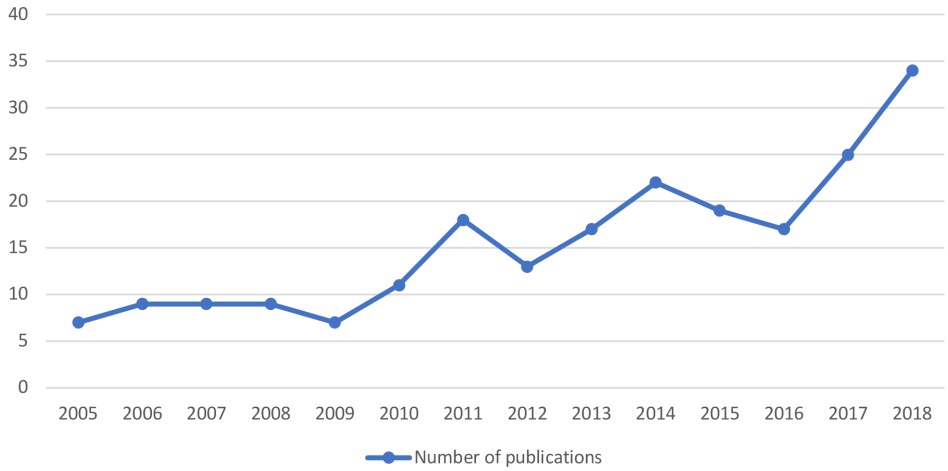


Figure 2.3 Publications from 2005 until 2018*
*217 publications included. Year 2019 and 2020 were excluded from the graph since the review was carried out at the beginning of 2020

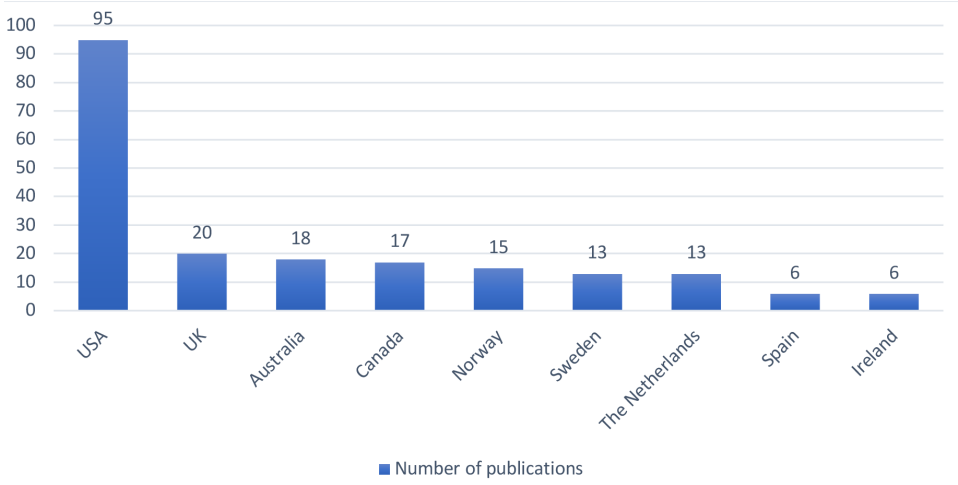


Figure 2.4 Publications by country of origin (2005–2020)*
*229 publications included
Other countries: France (4), New Zealand (4), Taiwan (3), Germany (3), Switzerland (3), Denmark (2), Japan (2), China (Hong-Kong) (2), Belgium (1), Singapore (1), Brazil (1)

Starting from 2005, most publications come from the United States (95 publications; 41%), followed by the United Kingdom and Australia (20 publications and 18 publications, respectively). Overall, the highest number of publications were found in Northern America and Europe, while the lowest or none in Africa and

Southern America (only one publication in Brazil). This may indicate that the topic of transitional care on these two continents is still not widely recognized.

Figure 2.5 illustrates the number of publications referring to a particular aspect of care transition. One publication could refer to more than one theme. Studies were more frequently related to organizational aspects (213 publications; 93%) than to financial aspects (16 publications; 7%). Furthermore, organizational aspects that affect care transition without special focus on any disease, were mentioned in 174 studies. Publications covered eight different themes. A high proportion, 90 (39%), of all publications on organizational aspects, discussed coordination of resources as a crucial factor that affects care transition. Particularly, nurse-led and medication reconciliation programs were of interest to researchers. Many studies also focused on the importance of transfer of information and care responsibility (51 publications), communications of involved professionals (36 publications), and education and involvement of the patient and family (18 publications). Some studies assessed the experiences and opinions regarding care transition of health professionals (22 publications) and patients and family members (17 publications). Opinions of patients and health professionals are an important source of information on factors that affect care transition.

Figure 2.6 presents the number of publications referring to a particular disease or health condition. In this group of publications, coordination of resources also seemed to play an important role.

The number of publications per year per category can be found in Appendix A2. The number of publications on care provision aspects that affect care transition increased for almost every category, indicating a growing interest in care transition and care coordination. Especially the topic of coordination of resources has been discussed in many publications for the past 15 years.

Overall, the search pointed out different care provision aspects being studied in the literature on care transition. Moreover, it identified topics that are widely investigated and themes that are under-researched. Based on those findings, we have decided to select the financing theme to develop a full systematic review study, which is presented in Chapter 3. The next full systematic review study can focus on the role of coordination of resources in care transition. The preliminary review results reported in this chapter may already benefit other authors that intend to perform a systematic review on care transition as it provides insight into availability and scope of the publications on this topic. Furthermore, through the search, we were able to cluster factors affecting care transition into themes

as presented in Figure 2.2. This might give an indication to other researchers and policymakers which care provision aspects are important for care transition. Given the great variety in the publications reported above, it is important for researchers interested in reviewing the literature on transitional care to carefully consider their search strategy and particularly search string, and to narrow the scope of the study.

Figure 2.5. General organizational aspects—subthemes identified in the literature.

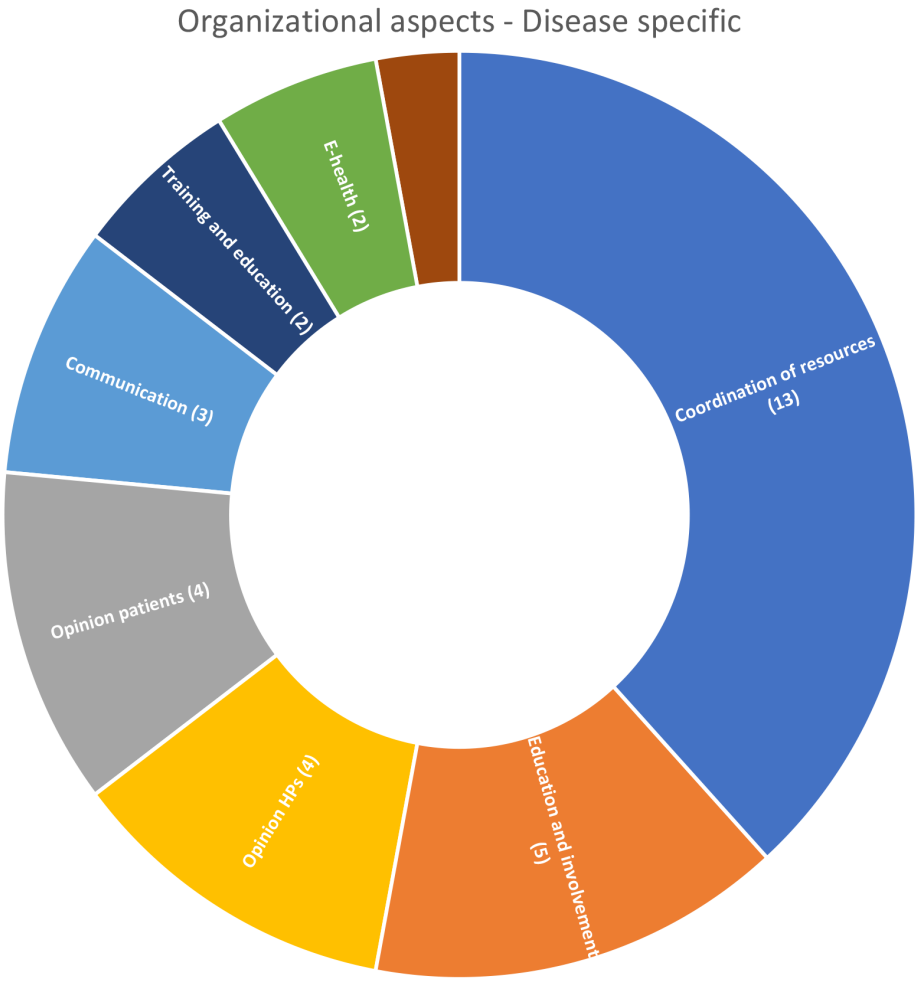


Figure 2.6. Organizational aspects in case of a specific disease or condition—subthemes identified in the literature.

2.4 DISCUSSION AND CONCLUSION

This chapter has offered the review protocol and preliminary review results on key care provision aspects, namely financial and organizational aspects, that affect care transition in LTC. The key aspect identified have also been used to create a model, which can be tested and validated in future research on the topic. This brief report is thus an initial step to gaining general insights on factors affecting care transition in the LTC systems.

As indicated by the preliminary results, in recent years, interest in care transition has grown exponentially and so did the number of publications and countries researching this topic. This is also reflected in the number of publications that have been published in the last years and the number of countries that are actively investigating this topic. Since 2005, there has been a steady growth in the number of publications regarding care transition. Increased research in this area is a response to the need to expand the evidence base demonstrating that suboptimal care transitions are quite common and are associated with worse quality of care and threaten patient safety (Coleman et al., 2005; Weaver, Perloff & Waters, 1999). In the early 2000s, most of the evidence came from the United States. Hence, the initial evidence on care transition brought attention to the problem and increased the research interest in the field of transitional care in this and other parts of the world.

These publications we identified in the review provide us with information on what are the factors that affect care transition and what are the alternative ways to optimize the care transition. Specifically, they inform policymakers about the areas where it is important to address quality of care and patient safety in transitional care. Moreover, this area is especially important in countries where the topic of transitional care is under-researched and fundamental knowledge for future studies is lacking.

According to the preliminary results, organizational aspects of care transition seem to be more researched than financial aspects. Organizational aspects that affect care transition include: coordination of resources, communication among involved professional groups, transfer of information and care responsibility of the patient, training and education of staff, e-health, education and involvement of the patient and family, and social care. Financial aspects include: provider payment mechanisms, rewards and penalties. Understating factors that affect care transition is crucial to improve the quality of transitions and, ultimately, the outcomes for the patients.

By the identification of different challenges and improvement measures in transitional care, it is possible to develop tailored strategies to improve clinical practice in transitional care of older adults. The preliminary search identified that most studies on the topic refer to broadly understood care provision aspects, namely organizational and financial aspects. Authors seem to agree that these domains play a pivotal role in optimizing care transitions (Storm et al., 2014; Tsiachristas, 2016). It is indisputable that good communication among involved professional groups and smooth transfer of care responsibility are crucial for optimized care transition. Professional groups should be provided with easily accessible communication channels to be able to transfer information between each other. This will help to

ensure comprehensive knowledge about the patient moving from one setting to another. Good communication and transfer of information regarding health status and the needs of the patient may help the receiving setting to better accommodate patient's needs and address preferences (Baxter et al., 2020; Kripalani et al., 2007; WHO, 2016). This is expected to have an overall positive impact on the patient's experience of the transition process, and can also reduce poly-pharmacy and ultimately improve patient outcomes (Kripalani et al., 2014).

Furthermore, education of the patient and family and their involvement in the care process are as important as training and education of staff who provide care to the patient. Patient and family knowledgeable, educated and prepared for self-management and providing care at home are less likely to experience unnecessary care transitions to settings such as primary care or hospital (Coleman et al., 2006). Thus, providing education and tools for self-care and self-management enables the patient and their family to monitor and manage their disease/condition at home and avoid unnecessarily high rates of health services use and reduce costs for the health and social care systems (Tomlinson et al., 2020). On the other hand, providing training and education to the staff is likely to empower professionals to deliver transitional care services such as patient/family education and medication reconciliation (Kripalani et al., 2014). Additionally, Bland et al.'s (2021) found that interprofessional education increases awareness of the importance of interprofessional communication.

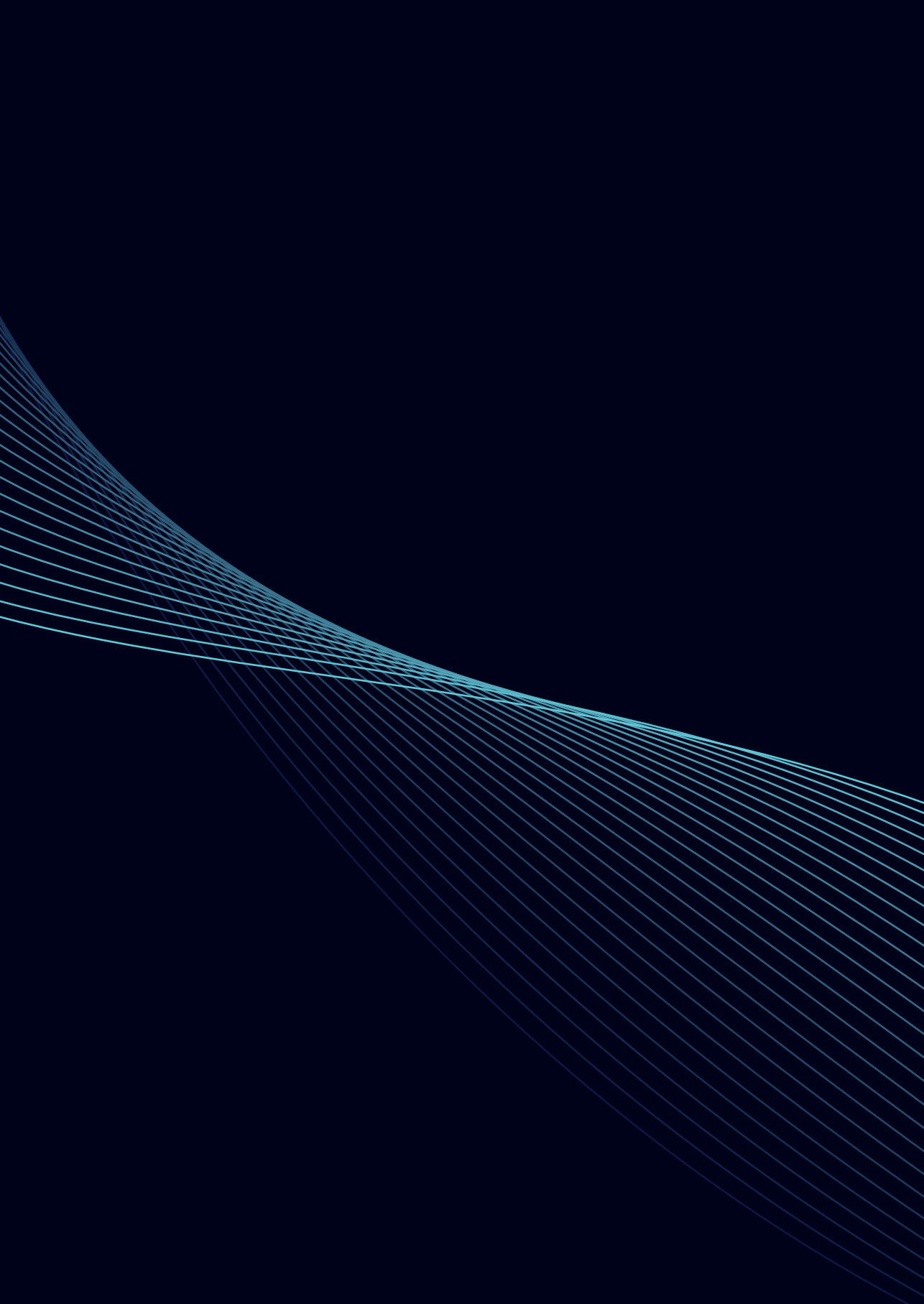
Another organizational aspect of care transition that should not be missed refers to the coordination of resources. Coordination of resources is an essential aspect of care transition for various reasons. For example, it is crucial not only to integrate and synchronize the activities of professionals involved in care transition, but also the availability of professionals, LTC facilities (Meador et al., 2011; Spasova et al., 2018). Specifically, a limited number of places in nursing homes and thus long waiting times may hamper the smooth transition of the patient in need of LTC. Furthermore, it is widely discussed whether eHealth and telehealth could offer promising solutions in improving communication and information exchange between the professionals, the patient and family. Various technologies could also be used to remotely monitor the biometric data of the patient or to provide remote consultations (Hamine et al., 2015; Hanlon et al., 2017). For instance, Pires et al.'s (2023) reported on the potential benefit of telehealth solutions for health care follow-up.

Also, financial incentives may be powerful tools to stimulate the integration of care, as reported in the systematic review presented in Chapter 3. In brief, as

suggested by that review, financial incentives are important drivers in improving care transition among older adults in LTC systems. Although the highest interest in financial incentives has been in primary care settings, applications of financial incentives in other settings have been reported as well, with varied impacts on care transition. Financial incentives can positively affect care coordination but not always, as studies also found unclear or no effect of financial incentives and even adverse effects. Nonetheless, it is worth mentioning that studies are rather heterogeneous and results are study-specific, thus limiting comparability across countries and settings. More information on financial aspects that affect care transition can be found in Chapter 3.

We acknowledge publication bias in the review because the search was carried out at the beginning of 2020, which means that it has not covered the more recent literature published during the Coronavirus Disease 2019 (COVID-19) pandemic. We therefore recommend a separate review to cover that period. In addition, although the screening process was checked by a second researcher, selection bias cannot be excluded. We recommend a more extensive check by a second researcher in future reviews. Also, the review was limited to care for older adults 60+, which other relevant patients groups experiencing care transition are not covered, and they can be the subject of new review studies.

Future research should also focus on a detailed analysis of a broader range of service aspects covering both provider and patient aspects of care. This can help to gain more in-depth information about alternative solutions for transitional care at the system level. In addition, future studies should focus on the implementation and feasibility of strategies to improve the care quality outcomes in transitional care among older adults in different settings and contexts.



CHAPTER 3

Do Financial Aspects Affect Care Transitions in Long-Term Care Systems? A Systematic Review

This chapter draws upon:

Wieczorek, E., Kocot, E., Evers, S., Sowada, C., & Pavlova, M. (2022a). Do financial aspects affect care transitions in long-term care systems? A systematic review. Archives of Public Health, 80.

ABSTRACT

Background

Suboptimal care transitions of older adults may ultimately lead to worse quality of care and increased costs for the health and social care systems. Currently, policies and financing often focus on care in specific settings only, and neglect quality of care during transitions between these settings. Therefore, appropriate financing mechanisms and improved care coordination are necessary for effective care transitions. This chapter aims to review all available evidence on financial aspects that may have an impact on care transitions in LTC among older adults.

Methods

Chapter 3 presents a systematic review in which the MEDLINE, EMBASE and CINAHL databases were searched. Studies were included if they reported on organizational and financial aspects that affect care transitions in long-term care systems.

Results

All publications included in this review (19 studies) focused specifically on financial incentives. We identified three types of financial incentives that may play a significant role in care transition, namely: reimbursement mechanism, reward, and penalty. The majority of the studies discussed the role of rewards, specifically pay-for-performance programs and their impact on care coordination. Furthermore, we found that the highest interest in financial incentives was in primary care settings.

Conclusions

Overall, the results presented in this chapter suggest that financial incentives are potentially powerful tools to improve care transition among older adults in long-term care systems and should be taken into consideration by policymakers.

3.1 BACKGROUND

Care transitions are an integral part of a patient's journey throughout a health care system (WHO, 2016). Transitions of care can be defined as "a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location. Representative locations include (but are not limited to) hospitals, sub-acute and post-acute nursing facilities, the patient's home, primary and specialty care offices, and long-term care facilities" (Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003, p. 556). In line with this definition, in this chapter, we focus on transitions not only in the health care sector but also in the social care sector, as they seem equally important (WHO, 2016). Thus, for the purpose of this chapter, we define the term "care transitions" as transitions happening in both, health and social sectors.

Care transitions are vulnerable exchange points and may result in negative clinical outcomes, preventable adverse events, and avoidable hospital readmissions. Suboptimal care transitions may ultimately lead to worse quality of care and increased costs for the health and social care systems, and therefore, their optimization is a policy priority (Burke et al., 2012). Care transition is optimized by improving care for the patient and/or avoiding unnecessary care transitions. Suboptimal or fragmented care transitions may not only lead to unnecessarily high rates of health services use and health care spending, but they may also expose chronically ill people to lapses in quality and safety (Thorpe & Howard, 2006; WHO, 2016). Transitions between different care settings are recognized as high-risk scenarios for patient safety and should be avoided or optimized when possible (WHO, 2016). Researchers seem to agree that older patients are particularly vulnerable to breakdowns in care and, therefore, may be the most in need of transitional care services (Naylor & Keating, 2008; Oakes et al., 2011).

Several factors, such as inaccuracies in information exchange, ineffective planning or coordination of care between care providers and lack of follow-up, may affect the care transition of a patient and may either hinder or promote smooth travel across varied settings of care and among multiple providers (LaMantia et al., 2010; Naylor & Keating, 2008; Storm et al., 2014). Financial aspects play an essential role in care coordination and care transitions (Tsiachristas, 2016). Currently, policies and financing often focus on care in specific settings only, and neglect quality of care during transitions between these settings (Naylor & Keating, 2008; Parry et al., 2008). Therefore, appropriate financing mechanisms and improved care coordination are necessary for effective care transitions (Stokes et al., 2018;

Tsiachristas, 2016). A financing mechanism will be considered appropriate if it provides incentives for high-quality care and effective management of transitions for good clinical outcomes and reduction of avoidable health care costs (Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003; Institute of Medicine (US) Committee on Quality of Health Care in America, 2001).

The expectations to improve quality of care and care transitions through financial incentives that affect providers' behavior, are mainly drawn from general economics, e.g. the works of Kenneth Arrow (1963), the new institutional economics and principal-agent theory (Jensen & Meckling, 1975), and behavioral economics (Kahneman & Tversky, 1979). According to the principal-agent theory, for example, health care providers not only act for the benefit of the patient but also attempt to maximize their own benefits against the interests of patients (Jensen & Meckling, 1976). This is particularly problematic when incentives lead to market failure. For example, fee-for-service payment creates strong provider incentives for higher volume, especially for services with higher profit margins per unit of service. Nevertheless, it does not necessarily encourage the provider to improve quality of care or reduce total treatment costs. Additionally, behavioral economics highlights the role of rewards and penalties among health care providers and how they may shape providers' behavior. Overall, the effect of the financial incentives on quality of care depends on the nature of the incentive. Different financial incentives and their mechanisms are widely described in the literature (Conrad & Perry, 2009). For instance, physicians may have a very different response to general incentives (e.g. capitation) versus selective incentives (e.g. Pay-for-Performance (P4P) programs). A selective incentive is thought to be more powerful in motivating physician quality response on the specific dimension (e.g. care coordination). This is because selective incentive can target a specific domain of quality and general incentive does not (Conrad & Perry, 2009).

To the best of our knowledge, no overview exists on financial aspects that affect care transition of older adults in long-term care (LTC) systems. Majority of available studies either focus solely on one specific financial aspect (Arbaje et al., 2014; Carnahan, Unroe & Torke, 2016) or do not focus on older adults but rather the general population (Chen, Oldenburg & Hsueh, 2021). Therefore, this study aims to review all available evidence on financial aspects that may have an impact on care transitions in LTC among older adults.

The aim of this chapter is to identify financial aspects that affect the care transition of older adults in LTC systems. A secondary aim is to identify the settings in which these financial incentives have been applied and to synthesize their reported impact on care

coordination. As it is difficult to define fixed boundaries for LTC and many activities in various parts of the health system may influence significantly care transitions of older people, some areas not obviously related to classical LTC users were included in the analysis, e.g. diabetic care, hypertension, coronary heart failure etc.

3.2 METHODS

We performed the overall search in a systematic way to minimize the potential bias, registered a review protocol in PROSPERO and followed PRISMA guidelines to design the search strategy (see Chapter 2 for more information).

As presented in more detail in Chapter 2, this systematic review focused on financial aspects of care transitions. The objective of the overall search was to identify all studies that address the financial and/or organizational aspects of care transition in the LTC systems.

3.2.1 Data sources and search strategy

The overall literature search was conducted in MEDLINE, EMBASE and CINAHL. The search strategy was developed by the research team in consultation with an academic health sciences librarian. The detailed information about the search strategy and the exact chain of keywords for different databases can be found in Chapter 2, and in the review protocol presented in Appendix A1. All search terms can be found in Table 3.1.

The search was limited to literature published between March 2005 and March 2020 (the last 15 years). No geographical or language restrictions were implied.

Table 3.1 Search terms

Category 1	Category 2	Category 3
Elderly	Patient*	Financ*
Aged	Care*	Organi*
Aging	Clinical handover	Purchas*
Old	Coordinated care	Funding
Senior	Coordination of care	Provision
Geriatric	Continuity of care	Reimbursement
	Integrated care	

Patient* captures i.a."patient handover", "patient transfer", "patient discharge" etc. Care* captures i.a. "care coordination", "care continuity", " care continuum" etc. Financ* captures "financing", "financial" etc. Organi* captures i.a. "organizational", "organizing", "organization" etc. Purchas* captures "purchasing", "purchase" etc.

3.2.2 Eligibility criteria

The overall search included studies that focus on transitional care between the settings among older adults 60+. The detailed information about the inclusion criteria is described in more detail in Chapter 2 and in the review protocol (see Appendix A1).

3.2.3 Study screening and selection

The selection process, based on the inclusion and exclusion criteria, had three phases and were managed with the use of Mendeley software. First, a screening based on title and abstract was performed by the main researcher (E.W.) to identify potentially relevant studies, and 10% of the excluded papers were independently reviewed by the other four researchers (M.P., E.K., S.E., C.S.). This was followed by a second screening based on full text to confirm the relevance of the studies. Third, the reference lists of the selected studies were screened to check for additional studies. Any disagreement about the eligibility of studies was resolved through discussion and consensus among all co-authors, as recommended in the literature (Morton et al., 2011).

The selected publications were then classified into financing and organizational categories. Thus, in this review, we only included studies that touch upon the financing of care transition.

3.2.4 Data extraction

A data extraction form was developed and pre-tested based on the findings presented in Chapter 2. The extracted information included, among others: author, year of publication, type of study, research approach, data collection method, study group, type of financial mechanism, aim of the mechanism, target group, intervention setting and country, measurement, results related to the implementation of financial mechanism (if possible) and recommendations regarding the financial mechanism.

3.2.5 Quality assessment

The methodological quality and risk of bias of studies meeting inclusion criteria were rigorously appraised with the use of Quality Assessment Tool for Quantitative Studies developed by Effective Public Health Practice Project (EPHPP) (Effective Public Health Practice Project, 1998) and Critical Appraisal Skills Programme (CASP) (Critical Appraisal Skills Programme, n.d.) for qualitative studies. Tool assessing quantitative studies led to an overall methodological rating of strong, moderate or weak in eight sections: selection bias, study design, confounders, blinding, data collection methods, withdrawals, intervention integrity. A rating was performed

according to the guideline provided along with the tool (Effective Public Health Practice Project, 1998). Tool assessing qualitative studies included 10 questions referring to aspects such as validity of the study, results and usefulness of results. For each question, there were three possible answers: yes/no/can't tell. If an answer was „yes", one point was assigned, if the answer was „no" or „can't tell" a question received zero points. In total studies could score 10 points. Studies that scored less than 33% (3 points) of total points were rated as low quality studies. Studies that scored from 33 to 66% of total points were considered as of moderate quality. At last, studies that scored more than 66% (7 points) of total points were regarded as high quality studies. Studies with mixed methods were assessed with the use of both checklists.

3.2.6 Data synthesis

The method of directed (relational) content analysis by Hsieh and Shannon (2005) was applied to perform the analysis of the publications. Within this approach, we identified the categories (themes) relevant to the review objective. The preliminary literature search presented in Chapter 2 provided guidance for initial codes. Thus, for the purpose of this review, the following themes were used: reimbursement mechanism, reward, penalty.

Based on these themes, the data extraction on financial aspects was performed using the data extraction form mentioned above. Review results are presented per themes in a narrative manner.

3.3 RESULTS

The exact information on the stages of the selection process is presented in Figure 2.1 in Chapter 2 where ultimately, 19 records on financial aspects were included in this review.

3.3.1 Study characteristics

An overview of the characteristics of the studies included in this review, is presented in Table 3.2. The total number per category may exceed 19 as papers can be classified in multiple sub-categories.

The majority of the publications have been published in the last 8 years (n = 12). The research approaches used by the researchers were quantitative (n = 12), qualitative (n = 5), mixed (n = 2). We identified studies with an explanatory aim (n = 15) and an exploratory aim (n = 4). There are five different data collection

techniques used in the publications reviewed. Studies used secondary data/patient records (n = 14), unstructured/semi-structured interviews (n = 5), observations (n = 2), online web-based questionnaires/assessments (n = 1) and standardized questionnaires/interviews/survey (n = 1). Studies targeted great variation of participants: patients with specific disease/condition (n = 11), older adults (n = 7), health care professionals (n = 6), social care specialists (n = 1) researchers (n = 1), policymakers (n = 1) and patient's family (n = 1). One study did not specify the study group (Hultberg et al., 2005). Some studies (n = 8) targeted more than one group of participants simultaneously.

Table 3.2 Study characteristics

Article	Year of publication	Type of study	Research approach	Data collection	Study group	Quality of the study
Anell & Glenngard (2014)	2014	Explan	Mixed	Unstructured /semi structured interviews + Secondary data/patient records	Health care professionals	Moderate
Baumann et al., (2007)	2007	Explan	Qual	Unstructured /semi structured interviews	Health care professionals + Social care specialists + older adults	Moderate
Birkmeyer et al., (2010)	2010	Explan	Quan	Secondary data/patient records	Older adults + with specific disease/ condition	Low
Busetto et al., (2017)	2017	Explor	Qual	Unstructured /semi structured interviews	Health care professionals	Moderate
Briggs & Araujo de Carvalho (2018)	2018	Explor	Qual	Online web based questionnaires/ assessments	Health care professionals + Policy makers + Researchers	High
Chen & Cheng (2016)	2016	Explan	Quan	Secondary data/patient records	Patients with specific disease/ condition	Moderate
Cheng, Lee & Chen (2012)	2012	Explan	Quan	Secondary data/patient records	Patients with specific disease/ condition	Low
Pan et al., 2017)	2017	Explan	Quan	Secondary data/patient records	Patients with specific disease/ condition	Moderate
Ekdahl (2013)	2013	Explor	Mixed	Observations + Unstructured /semi structured interviews + Standardized questionnaires/ interviews/surveys	Health care professionals + Older adults +	Moderate

Table 3.2 Continued.

Article	Year of publication	Type of study	Research approach	Data collection	Study group	Quality of the study
Fagan et al., (2010)	2010	Explan	Quan	Secondary data/patient records	Older adults + with specific disease/ condition	Low
Hollander & Kadiec (2015)	2015	Explan	Quan	Secondary data/patient records	Patients with specific disease/ condition	Low
Hultberg et al., (2005)	2005	Explan	Qual	Secondary data/patient records	No specific study group	Moderate
Kateridis et al., (2016)	2016	Explan	Quan	Secondary data/patient records	Older adults + with specific disease/ condition	Low
Kim et al., (2015)	2015	Explan	Quan	Secondary data/patient records	Patients with specific disease/ condition	Low
Laugaland, Aase & Waring (2014)	2014	Explor	Qual	Observations + Unstructured /semi structured interviews	Health care professionals + Older adults + family	High
Nishi, Maeda & Babazono (2017)	2017	Explan	Quan	Secondary data/patient records	Older adults + with specific disease/ condition	Low
Nolan (2011)	2011	Explan	Quan	Secondary data/patient records	Older adults	Low
Pizer & Gardner (2011)	2011	Explan	Quan	Secondary data/patient records	Patients with specific disease/ condition	Low
Yu, Tsai & Kung (2013)	2013	Explan	Quan	Secondary data/patient records	Patients with specific disease/ condition	Moderate
Total **Number of studies shown in parentheses**	2018 (1) 2017 (3) 2016 (2) 2015 (2) 2014 (2) 2013 (2) 2012 (1) 2011 (2) 2010 (2) 2007 (1) 2005 (1)	Explan (15) Explor (4)	Quan (12) Qual (5) Mixed (2)	Secondary data/patient records (14) Unstructured/semi structured interviews (5) Observations (2) Online web based questionnaires/ Assessments (1) Standardized questionnaires/ interviews/surveys (1)	Patients with specific disease/ condition (11) Older adults (7) Health care professionals (6) Social care specialists (1) Researchers (1) Policy makers (1) Family (1) No specific study group (1)	Low (9) Moderate (8) High (2)

The sum of N per category can exceed 19 as papers can be classified into multiple sub-categories
Note: Quan = Quantitative; Qual = Qualitative; Explan = Explanatory; Explo = Exploratory

All publications included in this review focused specifically on financial incentives. Among the 19 studies selected for the review, nine studies discuss the role of rewards, six publications report on reimbursement mechanisms and three focused on penalties. Two studies do not report on any specific type of financial mechanism but instead stress, in general, the importance of appropriate financing mechanisms to improve care for older adults (Briggs & Araujo de Carvalho, 2018; Ekdahl, 2014).

We identify financial incentives that aim to improve care for patients with specific condition/disease (n = 8) and/or older adults (n = 7). Six studies do not report on financial incentives to have any specific target group.

These financial incentives are discussed with relation to various settings such as primary care (n = 12), hospital (n = 6) and social sector (n = 3). Two studies report on the use of financial incentives for all health care providers and other care providers in general (Birkmeyer et al., 2010; Hultberg et al., 2005).

Figure 3.1 presents the types of financial incentives and intervention settings that were identified in the literature.

We identify 8 studies investigating the role of rewards in primary care and one study focusing on rewards in hospitals (Nishi, Maeda & Babazono, 2017). Reimbursement mechanisms are discussed with relation to primary care in three studies (Birkmeyer et al., 2010; Nolan, 2011; Pizer & Gardner, 2011) and hospitals in three studies (Birkmeyer et al., 2010; Busetto et al., 2017; Kim et al., 2015). In addition, researchers are focusing on penalties in settings, such as hospital (n = 2) (Baumann et al., 2007; Kim et al., 2015), social sector (Baumann et al., 2007) and primary care (Laugaland, Aase & Waring, 2014). Three studies discuss financial incentives targeting simultaneously more than one setting, e.g. all care providers (Baumann et al., 2007; Birkmeyer et al., 2010; Hultberg et al., 2005). Two of those studies do not specify the setting but rather argue that the financial incentives target all (health) care providers (Busetto et al., 2017; Hultberg et al., 2005). Two studies do not mention any setting (Briggs & Araujo de Carvalho, 2018; Ekdahl, 2014).

There is also great diversity with regard to the country where the intervention is reported. Some studies focus on the role of financial incentives in the United States (n = 5), Taiwan (n = 4), United Kingdom (n = 3), Sweden (Anell & Glenngård, 2014), Japan (Nishi, Maeda & Babazono, 2017), Germany (Busetto et al., 2017), Canada (Hollande & Kadlec, 2015), Norway (Laugaland, Aase & Waring, 2014), Ireland (Nolan, 2011). Two studies do not focus on any particular intervention country but rather discuss the importance of appropriate financial incentives (Briggs & Araujo

de Carvalho, 2018; Ekdahl, 2014).

Quality assessment of included publications is also presented in Table 3.2. All publications, regardless of their quality, were included in the final analysis.

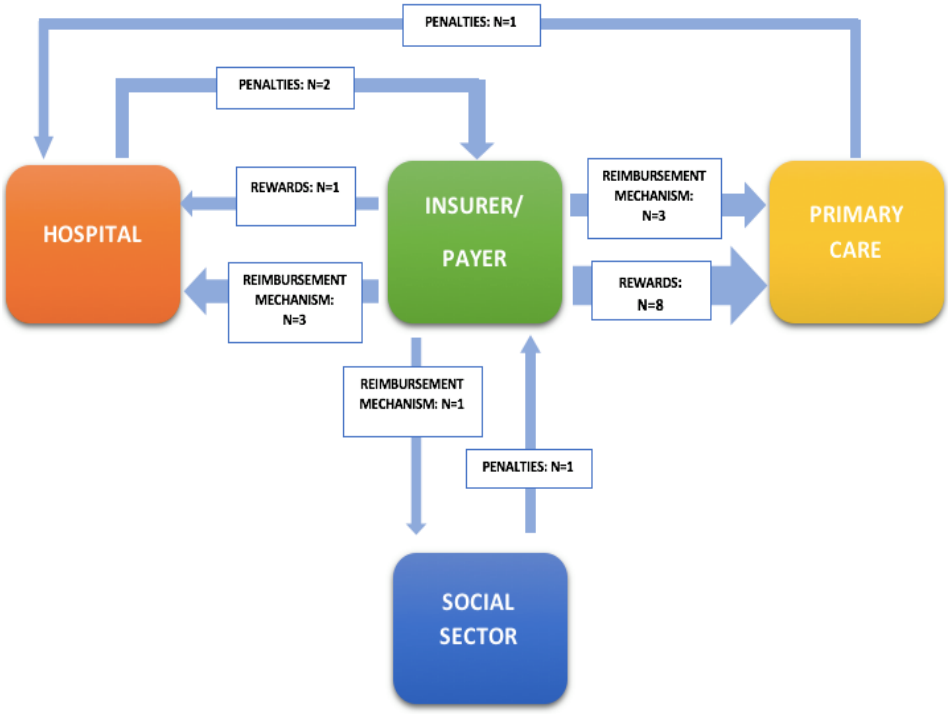


Figure 3.1 Financial incentives and settings identified in the literature

3.3.2 Characteristics of financial incentives

Characteristics of financial mechanisms are presented in Table 3.3. The majority of the studies discuss the role of rewards and their impact on care coordination. For instance, providers may get rewarded for improving structure, outcome and process indicators (Busetto et al., 2017; Pan et al., 2017; Yu, Tsai & Kung, 2014) or for inter-provider care planning (Nishi, Maeda & Babazono, 2017). Most studies, 8 out of 9, discuss the role of P4P programs in rewarding health care providers (Anell & Glenngård, 2014; Chen & Cheng, 2016; Cheng, Lee & Chen, 2012; Fagan et al., 2010; Hollander & Kadlec, 2015; Kasteridis et al., 2016; Pan et al., 2017; Tsai & Kung, 2014). The study by Yu, Tsai & Kung (2014) presents the P4P program for diabetes care implemented in Taiwan that provided financial incentives to medical

care personnel for enhanced monitoring and subsequent care for patients along with a bonus for improved treatment outcomes. This program aims to increase the financial incentives for physicians to provide holistic care for diabetic patients, who might also be LTC users (study included high proportion of individuals 75 years and older). Similarly, Pan et al.'s (2017) report on financial incentives in the form of P4P program that reward health care providers for achieving pre-established criteria for treating specific diseases. In this program, quality performance is monitored by four indicators. Providers that score high in those indicators and are ranked at the top of their peers and are eligible for additional bonuses. This program motivates physicians to follow up with their patients. Another study discusses the role of a P4P program in which practices are given a bonus payment for meeting specific quality indicators (Fagan et al., 2010). Only one study focuses on reward in the form of additional "regional inter-provider care planning fee" (Nishi, Maeda & Babazono, 2017). In order to be eligible for this fee, providers have to plan disease-oriented clinical care pathways among different providers.

Moreover, researchers in publications discuss diverse reimbursement mechanisms. These reimbursement mechanisms refer to the fragmented financing and its impact on care coordination (Pizer & Gardner, 2011), an extension of eligibility for free primary care (Noland, 2011) and the use of pooled budgets to integrate health and welfare services (Hultberg et al., 2005). Furthermore, studies address the use of bundled payments for care episodes (Birkmeyer et al., 2010) and "early complex rehabilitation" (mechanism) under German system of disease-related groups (G-DRG) (Nolan, 2011). Under "early complex rehabilitation" specific reimbursement system, geriatric hospitals in Germany receive bundled reimbursements for the treatment of similar groups of patients. These types of reimbursement are financially advantageous compared to the regular rates. Geriatric hospitals are eligible for it if they provide integrated care intervention and obligatory number of treatment sessions. Study by Birkmeyer and colleagues (2010) also discusses bundled payments, but for care around a surgical episode for following procedures: coronary artery bypass, hip fracture repair, back surgery and colectomy - procedures common among LTC users. Participants had to be 65 years and older to be included in the study. Bundling entails lumping reimbursements to health care and other care providers into a single payment. The primary motivation underlying bundled payments is improving care coordination, quality of care and cost-effectiveness.

Table 3.3 Characteristics of financial incentives

Article	Type of financial incentive	Aim of the mechanism	Group targeted through mechanism	Intervention setting	Intervention country
Anell & Glenngard (2014)	**REWARD** Pay-for-performance (use of outcome and process indicators)	No information provided	Older adults	Primary care	Sweden
Baumann et al., (2007)	**PENALTY** For delays from hospital	Inter-agency collaboration ↑ Efficiency of discharge ↑ Discharge planning arrangements ↑	Older adults	Hospital + Social sector	United Kingdom
Birkmeyer et al., (2010)	**REIMBURSMENT MECHANISM** Bundled payment for care around a surgical episode	Coordination of care ↑ Quality of care ↑ Cost-efficiency ↑	No specific requirement	Hospital + Primary care + other care providers	United States
Busetto et al., (2017)	**REIMBURSMENT MECHANISM** G-DRG -For the integrated care intervention + obligatory number of treatment sessions	Effectiveness ↑ Efficiency ↑ Patient centeredness ↑ Satisfaction ↑ Safety ↑	Older adults	Hospital	Germany
Briggs & Araujo de Carvalho (2018)	Information not provided	Information not provided	Older adults	Information not provided	Information not provided
Chen & Cheng (2016)	**REWARD** Pay-for-performance (For providing enhanced, guideline-based care)	Health care provision ↑ Continuity-of-care ↑ Health care outcomes ↑	With specific condition/ disease	Primary care	Taiwan
Cheng, Lee & Chen (2012)	**REWARD** Pay-for-performance (for 3 types of comprehensive visits)	Health care provision ↑	With specific condition/ disease	Primary care	Taiwan
Pan et al., (2017)	**REWARD** Pay-for-performance(For improvement in 4 indicators, additional bonus for being the best)	Patient outcomes ↑ Quality of care ↑	With specific condition/ disease	Primary care	Taiwan
Ekdahl (2013)	Information not provided	Information not provided	Older adults	Information not provided	Information not provided
Fagan et al., (2010)	**REWARD** Pay-for-performance (Bonus payment for meeting specific quality indicator goals)	Quality of care ↑ Resource use ↓	No specific requirement	Primary care	United States

Table 3.3 Continued.

Article	Type of financial incentive	Aim of the mechanism	Group targeted through mechanism	Intervention setting	Intervention country
Hollander & Kadiec (2015)	**REWARD** Pay-for-performance (For providing enhanced, guideline-based care)	Annual health care costs ↓, Hospital utilization ↓	With specific condition/ disease	Primary care	Canada
Hultberg et al., (2005)	**REIMBURSMENT MECHANISM** Pooled budgets to integrate health and welfare services (social and other services)	Coordination ↑ Efficiency ↑ Flexibility in the use of resources ↑	No specific requirement	Health care providers + Social sector	United Kingdom
Kateridis et al., (2016)	**REWARD** Pay-for-performance (for identification and annual review of dementia patients)	Discharge process ↑	With specific condition/ disease	Primary care	United Kingdom
Kim et al., (2015)	**REIMBURSMENT MECHANISM** Prospective payments based on DRG – DRG-specific short stay threshold	Short-stays in the long-term care hospitals ↓ Unnecessary transfers ↓	requirement	Hospital	United States
	PENALTY For short stay under the threshold	Short-stays in the long-term care hospitals ↓ Unnecessary transfers ↓	No specific No specific requirement	Hospital	United States
Laugaland, Aase & Waring (2014)	**PENALTY** For delayed discharge from the hospital	Patient flow ↑ Delayed discharge ↓	No specific requirement	Municipality (primary care)	Norway
Nishi, Maeda & Babazono (2017)	**REWARD** For the inter-provider care-planning	Length of stay ↓ Total charge ↓	Older adults + with specific condition/ disease	Hospital	Japan
Nolan (2011)	**REIMBURSMENT MECHANISM** Eligibility for free primary care	Avoidable hospitalizations↓	Older adults	Primary care	Ireland
Pizer & Gardner (2011)	**REIMBURSMENT MECHANISM** Fragmented financing	Continuity-of-care ↓ Health outcomes ↓	With specific condition/ disease	Primary care	United States
Yu, Tsai & Kung (2014)	**REWARD** Pay-for-performance (for improved health outcomes)	Holistic care ↑ Emergency department visits ↓	With specific condition/ disease	Primary care	Taiwan

Table 3.3 Continued.

Article	Type of financial incentive	Aim of the mechanism	Group targeted through mechanism	Intervention setting	Intervention country
Total Number of studies shown in parentheses	Rewards (9) Reimbursement mechanism (6) Penalties (3)		With specific condition/ disease (8) Older adults (7) No specific requirement (6)	Primary care (12) Hospital (6) Social sector (2) Health care providers (1) Other care providers (1)	United States (5) Taiwan (4) United Kingdom (3) Sweden (1) Japan (1) Germany (1) Canada (1) Norway (1) Ireland (1) Information not provided (2)

The sum of N per category can exceed 19 as papers can be classified into multiple sub-categories
↑ - increase, improve
↓ - decrease

Besides rewards and reimbursement mechanisms, in this review, we identify penalties that are issued with relation to patient discharge, for either delayed (Baumann et al., 2007; Laugaland, Aase & Waring, 2014) or too-early discharge before the patient is medically stable enough to go home (Kim et al., 2015). Penalties for delayed hospital discharges of older adults aim to stimulate a good patient flow between care providers and to overcome challenges with delayed discharges. Studies on penalties included in the review focus on older adults that may be in need of LTC. A study by Laugaland, Aase & Waring (2014) elaborates on penalties that have to be paid to an acute provider unit (533 euros per day) by the municipality in a situation when ready for discharge patient is not accepted on time. This particular type of penalty incentivize discharge planning and encourages coordination. On the other hand, Kim et al.'s (2015) studied the use of penalties for a short stay (too-early discharge) under the threshold in LTC hospitals. Through this penalty, providers were encouraged to keep the patients until after their lengths-of-stay have exceeded the short-stay threshold.

3.3.3 Impact of the financial incentives

As shown in Table 3.4, majority of studies (n = 16) investigate the impact of the financial incentives on care coordination that is measured with the use of process and/or outcome indicators.

Three studies do not measure the effect of financial incentives (Anell & Glenngård, 2014 ; Briggs & Araujo de Carvalho, 2018; Ekdahl, 2014). Overall, from included studies, seven studies report on the positive effect of financial incentives on care coordination, six studies demonstrate to have unclear or have no effect, and three studies show a negative effect of financial incentives. In general, the study outcomes are heterogeneous, thus difficult to compare. A detailed description of outcomes can be found in additional file (see Appendix B1).

Table 3.4. Financial incentives – impact on measured indicators

Article	Financial incentives	Measurement	Impact on measured indicators
Anell & Glenngard (2014)	P4P	Utilization of hospital care, number of bed-days	Information not provided
Baumann et al., (2007)	Penalties for delayed discharge for responsible party	Information not provided	+
Birkmeyer et al., (2010)	Episode-based payment bundling, single payment to all providers for care around surgical episode	Average total payments around inpatient surgery (hospital, physician, post-acute care) 30 days readmission	+/-
Busetto et al., (2017)	Early complex geriatric rehabilitation	Effectiveness, efficiency, patient-centeredness, satisfaction, safety	-
Briggs & Araujo de Carvalho (2018)	Information not provided	Information not provided	Information not provided
Chen & Cheng (2016)	P4P	The number of essential examinations/tests, continuity of care, health care outcomes	+
Cheng, Lee & Chen (2012)	P4P	Long-term effects of P4P program, health care utilization - Essential examinations/tests performed at diabetes-related physician visits, Diabetes-related hospitalizations, Diabetes-related health care expenses Impact on overall health care expenses, including both diabetes-related and nondiabetic-related conditions.	+
Pan et al., 2017 (2017)	P4P	Mortality, patients' physician continuity	+
Ekdahl (2013)	Information not provided	Information not provided	Information not provided
Fagan et al., (2010)	P4P	Quality of care for the incentivized care indicators, quality of care for the nonincentivized care indicators, utilization and medical costs incurred	+/-
Hollander & Kadiec (2015)	P4P	Total annual costs of health care, number of indicators of hospital utilization	+
Hultberg et al., (2005)	Pooled budgets to integrate health and welfare services	Coordination Cost-effectiveness Experiences of service users	+/-

Table 3.4. Continued.

Article	Financial incentives	Measurement	Impact on measured indicators
Kateridis et al., (2016)	P4P	Likelihood of care home placement following acute hospital admission	+
Kim et al., (2015)	DRG-specific short-stay threshold	Information not provided	-
Laugaland, Aase & Waring (2014)	Penalties for delayed discharge	Information not provided	-
Nishi, Maeda & Babazono (2017)	Regional inter-provider care-planning fee	LOS, total charge	+/-
Nolan (2011)	Eligibility for free primary care	Avoidable hospitalizations	+/-
Pizer & Gardner (2011)	Fragmented financing	Hospitalizations for ambulatory care sensitive conditions	+
Yu, Tsai & Kung (2014)	P4P	Emergency department visits	+/-

+ improved
+/- no effect or effect unclear
- negative effect
*effect not measured
/ lack of data

Studies on financial rewards provide mixed results. For instance, Hollander & Kadiec (2015) show that the use of rewards related to care transition can and do avoid costs for the health care system and reduce hospital utilization. Study reported on four conditions that are common among geriatric patients: diabetes, coronary heart failure, congestive pulmonary disease, and hypertension. The study of Chen & Cheng (2016) and Cheng, Lee & Chen (2012) reports that rewards in the form of P4P program might lead to better care continuity and ultimately decrease the likelihood of hospital admissions or emergency department (ED) visits. Nonetheless, studies by Fagan and colleagues (2010) and Yu, Tsai & Kung (2014) found no evidence on P4P programs to improve quality of care and resource use.

Furthermore, studies on the use of penalties also provide inconsistent results. The study of Baumann et al.'s (2007) demonstrated that penalties for delayed discharge increase the efficiency of collaboration with social services and enhance the use of integrated discharge planning teams. In contrast, the study carried by Laugaland, Aase & Waring (2014) shows that penalties may also have a negative impact on care transition. Penalties may result in providers rushing patient transfers.

Similar to other financial incentives, we also observe mixed results in the studies on reimbursement mechanisms. For instance, Nolan (2011) observed no change in the number of avoidable hospitalizations, as a result of a reimbursement mechanism that extended eligibility for primary care for older adults. Furthermore, contrary to some assumptions, the study by Hultberg et al.'s (2005) argues that pooled budgets between health care and the social sector have no impact on cost-effectiveness, the behavior of front-line professionals and experiences of service users. On the other hand, the study by Busetto and colleagues (2017) carried out in geriatric hospital focus on patients with complex, multiple age-related conditions that require long-term care after discharge. The study reports that the use of bundled payments with an obligatory number of treatment sessions may lead to the "revolving door effect", unnecessary incurrence of costs (efficiency), an increased likelihood of adverse events or medical mistakes.

3.4 DISCUSSION

To our knowledge, the study presented in this chapter is first ever to present evidence on financial aspects that affect care transition of older adults in the LTC systems. We are also first to identify the settings in which these financial aspects play a significant role. Moreover, we synthesize the reported impact of these financial aspects on care coordination/care transition. We included 19 studies in this review.

We found that financial aspects and specifically financial incentives may play an important role in the LTC systems by either improving or hampering care transitions of older adults. The findings that financial incentives may play an important role in the way health care is provided are in line with assumptions coming from microeconomic theory (Arrow, 1963), the theory of principal agent-behavior (Jensen & Meckling, 1976), and behavioral economics (Kahneman & Tversky, 1979). These assumptions assume that financial incentives are likely to influence providers' behavior. Furthermore, researchers also point out the importance of financial incentives in stimulating the integration of care (Nolte & McKee, 2008; Struckmann et al., 2017; Tsiachristas, 2016). For instance, a study by Struckmann et al., (2017) suggests that innovative payment mechanisms, such as P4P and Pay-For-Coordination (P4C) have the potential to encourage providers to collaborate and improve care delivery process.

This study identified three types of financial incentives that may play a significant role in care transition and care coordination as a whole. These financial incentives involve reimbursement mechanism, reward, and penalty. This is not surprising as monetary incentives that stimulate the integration of providers and promote effective chronic care have been an issue of debate for researchers worldwide (Chaix-Couturier et al., 2000; Struckmann et al., 2017; Tsiachristas, 2016). In economic theory, financial incentives may lead to behavior change of providers, patients and other stakeholders and thus, stimulate immediate and long-term improvements in performance (Glasziou et al., 2012; Tsiachristas, 2016). Different techniques for financing providers have implications on the nature and quality of services provided (Tsiachristas, 2016). For instance, paying each care provider involved in the care transition separately does not incentivize the providers to coordinate the care and may even block effective integration (Stokes et al., 2018; Struckmann et al., 2017). Thus, alternative approaches of provider payment mechanisms, such as P4C, P4P, Pay-For-Quality (P4Q), bundled payments and shared-savings models etc., may encourage the integration of providers to work together towards coordinated care (Struckmann et al., 2017; Tsiachristas, 2016). These innovative payment mechanisms allow to offset the inherent limitations of traditional payment methods and stimulate providers to provide high-quality care by rewarding collaboration with different stakeholders. Improved collaboration between different professions, organizations and sectors is especially important during transitions of care.

Beside the crucial role of reimbursement mechanisms and rewards to stimulate integration of care, studies included in the review also discussed the role of penalties. Providers could be penalized for poor performance, particularly with

regard to poor discharge planning. In theory, penalties may alter providers' efforts to improve quality of care. According to Dickinson (2001), penalties may create an even stronger providers' response than rewards of equivalent size due to risk aversion or „loss aversion". Nevertheless, in practice, it is not always the case, as it was demonstrated in the reviewed studies. In addition, their fairness and likelihood of driving appropriate behavior are still debated (Burke et al., 2012).

Furthermore, we found that the highest interest in financial incentives was in primary care settings. According to the report of WHO (2016), rewarding primary care doctors for their efforts in coordinating care is an important aspect motivating them to follow up with the patient. It is crucial because primary care physicians (PCPs) are patients' first point of contact and their service has an overwhelming bearing on health care quality. Moreover, they are often crucial players in coordinating services delivered by different stakeholders (Starfield, 1992; Starfield, Shi & Macinko, 2005). PCPs play an important role not only for LTC patients that are at home but also for the ones residing in nursing facilities. A study by Codde et al.'s (2010) found that 31% of all emergency department visits from residential aged care facilities could be avoided with improved primary care. PCPs are also important actors when it comes to identifying risks among frail older adults and preventing hospitalizations. Their responsibility is to detect high-risk patients and refer them to appropriate care and treatment (OECD/European Commission, 2013). As a result, application of financial incentives in primary care that directly reward "performance" and "quality" is gaining recognition worldwide and this was reflected in the studies that we included in the analysis. Review presented in this chapter found that especially P4P programs are common to reward high-performing primary care physicians. These programs rewarded improvement in structure, outcome and process indicators. Nevertheless, the effects of the P4P scheme remain largely uncertain (Houle et al., 2012). Two separate studies carried out by Mendelson et al.'s (2017) and Langdown & Peckham (2014) suggest that P4P programs offer only short-term improvements and have no impact on long-term patient outcomes.

Majority of studies included in this review measure the impact of reported financial incentives on predetermined indicators. Nonetheless, drawing one single conclusion on the impact of these financial incentives on care transition in the LTC systems seem infeasible. This is due to the heterogeneity of studied financial incentives, settings in which they are applied and their intermediate goals. Moreover, studies focus on financial incentives in their specific contexts and national health systems in which they operate. Perhaps, financial incentives improving care coordination and care transition in one country may not have the same effect in another

(Struckmann et al., 2017). Therefore, prior to implementation, financial incentives should be developed and tailored to the local context.

We need to emphasize that measuring indicators and outcomes in LTC can be problematic, and quality can be difficult to define. First, the concept of LTC quality is multifaceted. Up to date, there is no definition of what constitutes LTC quality (European Commission & the Social Protection Committee, 2021). Additionally, measuring some of the indicators may be very challenging. Collection of data on LTC quality also poses a lot of challenges. Many countries do not measure outputs but instead, collect data on inputs such as the number of beds in nursing homes. Second, patient information of diagnosis, functional status, and medical complexity is usually not available. Even if such information would be available, there is a methodological challenge related to the focus of quality in LTC. Majority of individuals in need of LTC are older adults and their autonomy is likely to worsen with age. Thus, the main focus of quality in LTC settings is to some extent reduce dependency and disability by helping dependent individuals to maintain control over their condition. Defining a start and end point for measurement in LTC may be also problematic. Third, LTC recipients often navigate across care settings which further complicate the measurement of LTC quality (OECD/European Commission, 2013; European Commission & the Social Protection Committee, 2021). There are also other non-medical factors such as housing and adaptation of the environment for the people with disabilities that may affect the LTC quality. Taking into consideration all these aspects, it remains a challenge to evaluate the impact of financial incentives on LTC quality. Thus, the first step is to develop a set of standardized indicators that would capture the nature of LTC and implement it into practice.

We need to acknowledge that some of the examples of diseases and conditions in the included studies do not seem to refer to classical LTC users. Nonetheless, conditions such as diabetes and hypertension etc. most commonly develop in older adults and have a high prevalence in LTC facilities and, in general, LTC users. Diabetes in senior patients is often associated with limitations in physical function and disability and may increase the likelihood of institutionalization. For diabetic older adults care transitions are very common and these patients are particularly at high risk of adverse events. Thus, diabetes management in older adults is crucial to optimize care transition (Munshi et al., 2016). This applies to other chronic conditions as well. If not managed properly on time, chronic diseases in LTC users may lead to hospitalization, irreversible deterioration and increased dependency.

Limitations and recommendations for future research

Study presented in this chapter has some limitations. First, the research string build for this review might not have identified all relevant literature on financial aspects that affect care transition. This is mainly due to the heterogeneity of terminology for transitional care. It is noteworthy that the terms "transitional care" and "care transition" are still not widely used by researchers. In the included studies, authors often refer to continuity of care, care coordination and integrated care instead. Furthermore, studies included in this review had diverse research designs and focused on different financial mechanisms, care settings, outcome measurements and countries. We also recognize possible publication bias since some relevant papers might have been under review, not yet published, or published in grey literature sources, which we did not review. We also acknowledge possible selection bias even though a part of the selection process was verified by other researchers in the team.

On the other hand, we tried to mitigate selection and publication bias by a rigorous systematic review of published and unpublished studies. We contacted all authors of studies that were unavailable online and requested full-text. Moreover, we considered all studies independently of the language.

Practice and/or policy implications

Well-developed and tailored financial incentives have the potential to stimulate care coordination and improve care transitions for older patients in LTC systems. Policymakers should consider the implementation of different financial incentives such as reimbursement mechanisms, rewards and penalties among care providers to improve care transitions among older adults. Once implemented, new financing mechanisms should be continuously evaluated to inform future policy.

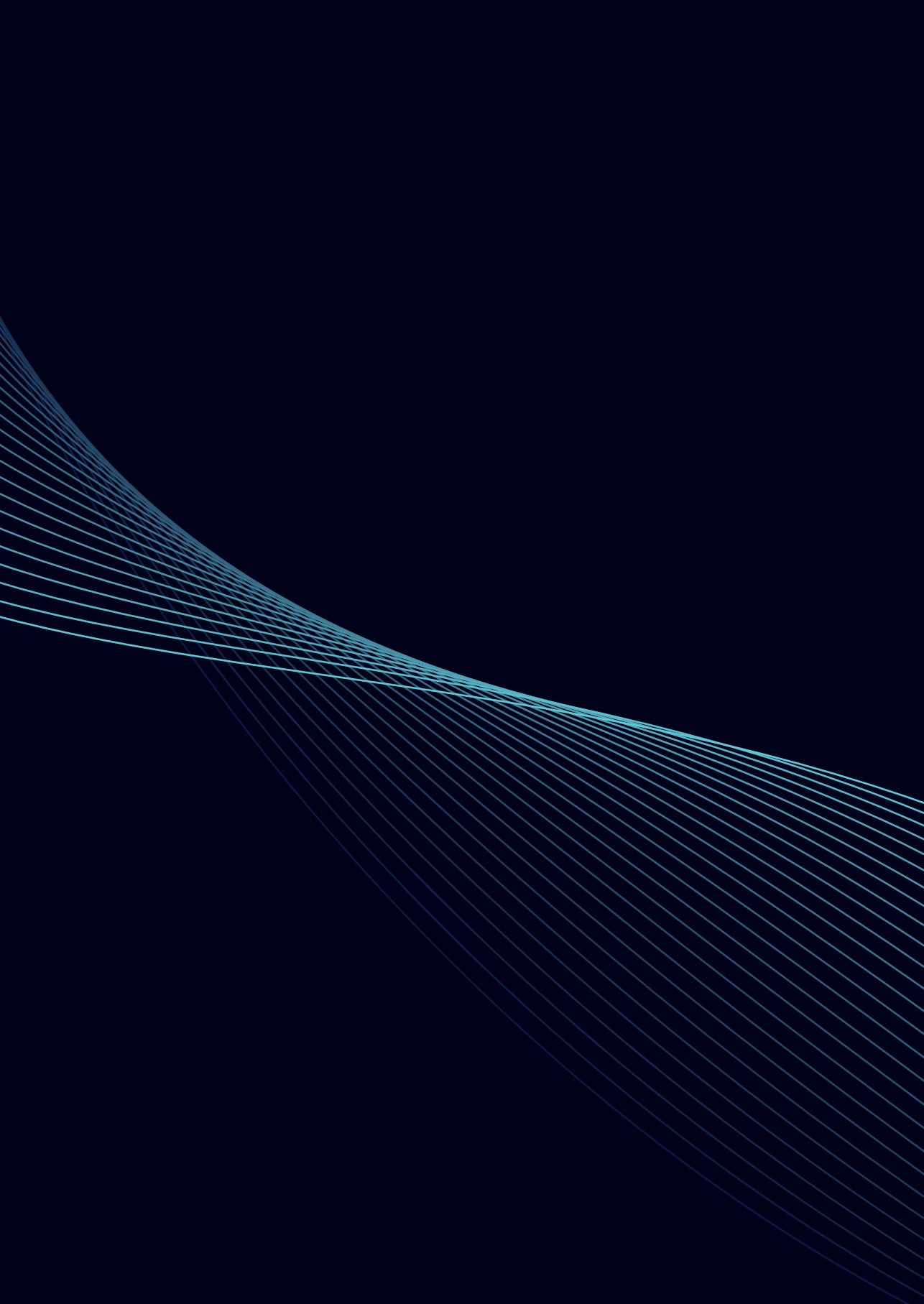
Beyond identifying financial aspects, and particularly financial incentives, that have an impact on care transition, there is a need to examine the effect of these various monetary incentives. Future studies that focus on evaluating the effects of financial incentives should perform age stratification in their data sets. This would enable us to observe the impact and the extent of the financial incentive among different age groups, particularly older adults.

Moreover, to our knowledge, as indicated in this chapter, there are no studies that discuss how the financing of LTC systems affects the direction of the transition. Perhaps older adults will be more likely to be institutionalized despite their need and willingness to stay at home? We hypothesize that the way LTC systems are financed will have implications on the direction of the transition. Therefore, future

studies should explore the link between these two variables. Chapter 5 presents some of the implications that the financial aspects might have on the direction of the transition.

3.5 CONCLUSION

Overall, the results suggest that financial incentives are potentially powerful tools to improve care transition among older adults in LTC systems. In this chapter, three types of financial incentives were identified that may play a significant role in care transition, respectively, reimbursement mechanism, reward and penalty. In addition, we found that the highest interest in financial incentives was in primary care settings. However, given the diversity of the studies, we are unable to draw firm conclusions regarding the impact of these financial incentives on care transition in LTC system. In this regard, more evidence of the impact of monetary incentives on care transition among older adults is needed. In particular, it is imperative that future research investigates the causality of this relationship to be able to support the improvement of care transition.



CHAPTER 4

Strategies Supporting Informal Caregivers in Europe and Their Relation to Care Transitions

This chapter draws upon:

Wieczorek, E., Evers, S., Kocot, E., Sowada, C., & Pavlova, M. (2022). Assessing policy challenges and strategies supporting informal caregivers in the European Union. Journal of Aging & Social Policy, 34(1), 145–160.

ABSTRACT

Background

Cost containment and the preferences of older adults are important stimuli for encouraging the provision of informal care worldwide. Nevertheless, informal caregiving can have negative effects on caregiver's health, wellbeing, and employment opportunities. Moreover, it is questionable whether informal caregivers can substantially contribute to meeting the increasing demand for care or serve as a substitute for formally provided services.

Methods

This chapter assesses strategies to remediate the negative effects of caregiving and ultimately to improve informal caregiving and to support their critical role in European long-term care systems and care transitions.

Results

Cash benefits are a particularly common method of supporting informal caregivers; paid and unpaid leave, and flexible work arrangements are the most prevalent measures to support family caregivers within labor market policy, specifically. Providing training and counseling services to individuals engaged in informal care is a strategy used to support caregivers at home.

Conclusion

Disparities in the level of support provided to informal caregivers across Europe need to be addressed. A lack of supporting policies increases the likelihood that caregivers experience negative physical and psychosocial health problems, as well as unemployment and impoverishment. Moreover, older adults that are looked after by unsupported and unprepared informal caregivers are more likely to experience suboptimal care transitions.

4.1 BACKGROUND

Progressive population aging in Europe is expected to increase expenditures on Long-Term Care (LTC) due to the increased size of the population requiring care, length of services provided, and technological advancements used in LTC (European Commission, 2012). As outlined in Chapter 1, most European countries face strong and growing fiscal pressures within their LTC systems. In 2013, the public LTC expenditure in the EU was on average 1.6% of Gross Domestic Product (GDP). However, by 2060, this share is estimated to increase to 2.7% of GDP (European Commission, 2019). In this context, policymakers must address the triple challenge of ensuring high-quality care and high rates of inclusion while upholding financial viability (Mosca et al., 2016).

The ability of the EU to address the triple challenge is hampered by a potential shortage of care professionals projected in the near future (OECD, 2020; European Commission, 2012). Therefore, many European countries have adopted policies to encourage home-based care and thus, "aging in place" in order to reduce utilization of institutional LTC (Krabbe-Alkemade et al., 2020; Plöthner et al., 2019). Nonetheless, the ability of older adults to stay at home with age-related declines in capabilities may be compromised by the absence of viable caregiving options.

Older adults are likely to experience functional impairment, which ultimately leads to increased dependency (Kingston et al., 2017), i.e. the inability to carry out daily personal tasks. Increased dependency is often a consequence of sickness or frailty (Pickard, 2011). Multimorbidity, polypharmacy and geriatric syndromes such as falls, frailty, dementia etc. are common conditions among older adults (Christensen et al., 2009; Sanford et al., 2020). As a result, this patient group are frequent users of health and social services and ultimately experience an increased number of care transitions (Naylor & Keating, 2008; Oakes et al., 2011). The term "care transition" refers to "patient transfer between different locations or different levels of care within the same location" (Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003, p. 556).

Dependent older adults who stay at home, may receive care formally and/or informally. Formal care is provided by paid professionals, while informal care generally refers to unpaid care provided by spouses, children, other relatives, friends, or other non-kin (Triantafillou et al., 2010). This care may involve help with daily living activities such as eating, bathing, and dressing, or other household activities such as cooking, cleaning, and managing medicines. Nevertheless, the role of informal caregivers is not limited to caring tasks. Informal caregivers are also frequently responsible for

the coordination and management of complex care procedures, even though they lack the training and skills of formal care providers (Triantafillou et al., 2010). In addition, informal caregivers also play crucial role in care transitions of older adults. Involving informal caregivers in care transition is essential for improving quality of care for older adults and resource efficiency, e.g., in terms of inpatient beds, as well as adherence to discharge instructions (Allen et al., 2022; Hahn-Goldberg et al., 2018). Moreover, Sokas et al.'s (2021) suggested that the presence of informal caregivers may have an impact on discharge destination of older adults undergoing surgical procedures. In their study, patients who lived with others were twice as likely to be discharged home. Besides, Coleman and colleagues (2006) reported that involving informal caregivers in care transition of older adults from hospital to home had a significant impact on reducing rates of hospitalization.

Europe relies heavily on informal caregivers who provide the majority of LTC for older adults (Verbeek-Oudijk et al., 2014). According to Spasova et al.'s (2018), the high incidence and expansion of informal care are mainly attributable to the lack of accessible institutional LTC options, as well as the traditional model of intergenerational and familial relations that promotes extended periods of family caregiving before institutional placement takes place. In addition, a number of countries are increasingly moving away from institutional to home- and community-based care provided formally or informally by family and/or friends (Krabbe-Alkemade et al., 2020; Lehnert et al., 2019). This rebalancing of LTC provision stems from austerity measures intended to reduce the reliance on more expensive institutional LTC options, as well as individual's preferences for receiving care at home (Simonazzi, 2008; Lehnert et al., 2019). According to Lehnert et al.'s (2019), majority of older adults prefer to remain in their known physical (community, home) and social (family, friends) environment for as long as possible. These individuals declare that being able to stay in their home has a positive impact on their personal and social identity, autonomy, control, and dignity. Notably, older adults explain their preference for informally provided care with the intimate nature of the tasks performed and the expense associated with formal care provision (Lehnert et al., 2019).

Western European nations have favored an increased use of informal care in this shift towards greater provision of care at home and in the community. By contrast, there has been a movement towards increasing the role of formal care in Central and Eastern European (CEE) countries, as family members, who have traditionally provided care in this part of Europe, are not able to meet the increased demand for care (Alders & Schut, 2019; Spasova et al., 2018; Hirose & Czepulis-Rutkowska, 2016). CEE countries, however, lack quality LTC services in both institutional and

home-based care settings, which necessitates increased investments and expansion of the public infrastructures to support greater formal LTC services provision (Hirose & Czepulis-Rutkowska, 2016).

In this chapter, we outline arguments for and against integrating programs and policies that encourage informal care in European LTC systems. Based on this, we discuss different strategies that may remediate the negative effects of informal caregiving and ultimately improve the quality of life of informal caregivers. Moreover, we elaborate on the importance of supporting informal caregivers and the effect it might have on care transitions of older adults.

4.2 ARGUMENTS IN FAVOR OF INFORMAL CARE

The increasing number of older adults who need a higher proportion of care for longer periods is likely to put growing fiscal pressure on the system for providing long-term services and supports (Spasova et al., 2018). Demand-side factors, together with supply-side factors, such as organization and financing of the LTC system and the availability of human resources, determine public LTC expenditures. So too does the relative proportion of LTC provided in institutions versus home and community settings (European Commission, 2012). Encouraging greater provision of home and community-based services can be a way to contain costs, mainly due to the fact that, in some cases, providing care in institutions is more costly than providing care in the community (Simonazzi, 2008). However, it is not known to what extent and under what conditions home care is less expensive (Krabbe-Alkemade et al., 2020).

The majority of spending on LTC occurs in inpatient LTC settings (OECD, 2019). According to data for 2017 from 27 OECD countries, 62% of government and compulsory insurance spending on LTC was attributable to inpatient care, while only 33% of spending was related to home-based LTC (OECD, 2019). The highest share of governmental and compulsory insurance spending on inpatient LTC was found in Hungary (96%) and Iceland (91%). Compared to 2015, only a small decline in inpatient LTC spending was observed two years later (OECD, 2019).

From the perspective of the government and other payers, informal care can be perceived as a "free" alternative to formal care, although the cost-effectiveness of such an alternative is not well investigated at a social level. Cost containment is thus an important stimulus for encouraging the provision of informal care by governments wishing to reduce public expenditures on formal LTC services

(Colombo et al., 2011). For example, it has been estimated that Finland saved 2.8 billion Euros ($3.4 billion) per year on formal care due to the provision of informal care (Kehusmaa et al., 2013). Without the help of informal caregivers, the Finnish public care expenditure on formal LTC would be twice as high as it is at present.

At the same time, older adults with moderate care needs prefer to "age in place", i.e. staying at home, when compared to receiving care in LTC institutions, although this preference varies depending on a range of individual and contextual factors (Council of the European Union, 2014; Lehnert et al., 2019). Taking into account older adults' preferences for receiving care at home and in the community is necessary in order to deliver person-centered care that meets individual's physical, psychological, social and spiritual needs (Morgan & Yoder, 2012). Increased provision of informal care is one way to meet these preferences and needs.

4.3 CHALLENGES WITH INFORMAL CARE

According to studies, informal caregiving can have positive and/or negative effects on caregivers (Swinkels et al., 2019; Oliva-Moreno et al., 2018). The burden of caregiving is a multidimensional construct that can be influenced by a range of factors including, but not limited to, ethnicity and culture, hours spent providing care, as well as care recipient's state of health and level of dependency (Di Novi, Jacobs & Migheli, 2015; Oliva-Moreno et al., 2018; Roth, Fredman & Haley, 2015; Swinkels et al., 2019). The role of culture is reflected in differences in caregiving experiences across Europe. Di Novi, Jacobs and Migheli (2015), for example, concluded that the impact of informal caregiving significantly varies across European regions and is closely related to specific cultural and social norms. In countries such as Italy, Spain, and Greece, where informal care is regarded as a familial responsibility and where the role of informal care is pivotal, caregivers likely feel high satisfaction from giving support, though there is no difference in self-assessed health between carers and non-carers (Di Novi, Jacobs & Migheli, 2015). In countries such as the Netherlands, Sweden, and Denmark, where greater reliance is placed on formal support structures, carers tend to rate their own health better than non-carers do.

Lower care recipient dependency levels and lower hours spent helping with Activities of Daily Living (ADL) have been found to have a positive impact on caregiver experiences across a range of settings (Oliva-Moreno et al., 2018). Alternatively, increasing the reliance on informal care heightens caregiver burden while incurring unwanted health and economic consequences (Addis et al., 2011;

Bom, Bakx, Schut & van Doorslaer, 2018; OECD, 2019). This is particularly true among caregivers providing care to older adults with great health needs and dependency levels (Bom, Bakx, Schut & van Doorslaer, 2018; Oliva-Moreno et al., 2018). Providing care at home is a very demanding and stressful task that may have adverse implications for the health and mental health of carers, irrespective of the type of welfare state within which they are situated (Kaschowitz & Brandt, 2017; Sternbeg, 2012). The burden and stress of caregiving are associated with mental health problems such as depression, anxiety, hostility, and anger (Bom et al., 2018). These negative ramifications on carers' health status are important since they may affect their ability to care for others or simply function in everyday life. Additionally, overburdened caregivers are less likely to act on their own health needs and more likely to engage in unhealthy habits such as smoking, alcohol abuse, and under-sleeping (European Commission, 2019).

From the payer's perspective, care provided by family members may seem "free" but there are opportunity costs associated with providing informal care (Pickard et al., 2017). In addition to the adverse health and mental health effects noted, caring for family members can have substantial adverse impacts on the likelihood of working and the number of hours worked (Schmitz & Westphal, 2017). The resulting lack of stable income may, in turn, lead to impoverishment and lower pension entitlements in the future (European Commission, 2012). In a number of European countries, informal caregivers are not protected by employment contract (European Commission, 2018). Stress from foregone income and lack of entitlement, and uncertainty about the future may discourage individuals from providing unpaid care while further burdening those who already provide it (Triantafillou et al., 2010).

More fundamentally, it is questionable whether countries will be able to increase the number of informal caregivers available to meet the increased demands for care posed by population aging in the light of other societal developments. These developments include increased labor market participation of women, changes in family models such as shrinking family size, increased pension age, changing living arrangements including single-person households, rising childlessness, and higher divorce rates (He & McHenry, 2013; Pickard, 2011). Together these trends suggest that increasingly fewer people will be available to provide unpaid, informal care over time.

Furthermore, even if informal care could be encouraged, it is questionable whether informal care can substitute for formal care, particularly, when dependent people need highly specialized care (Bonsang, 2009). Informal caregivers often do not

possess the qualifications or training needed to care for older adults with complex conditions, and therefore may lack the competencies and confidence to do so (Given, Sherwood & Given, 2008). Indeed, according to one study, many informal caregivers report being unprepared and receiving little to no guidance from LTC providers (Given, Sherwood & Given, 2008). Family carers who lack skills may feel unprepared for the caring role and thus may cease providing care or eschew it altogether due to the accompanying distress and anxiety (Given, Sherwood & Given., 2008). The resulting suboptimal care may lead to premature deterioration and an increased need for institutionalization or formal care services (European Commission, 2018).

4.4 STRATEGIES FOR SUPPORTING INFORMAL CAREGIVERS

Informal caregivers are the backbone of many European countries' LTC systems. Adverse outcomes among informal caregivers can be remediated with a range of supportive measures (Lethin et al., 2016; Mosca et al., 2016;). Given the crucial role of informal care in LTC, it is important to pursue strategies that enable individuals to care for dependent relatives and friends without being disadvantaged by their caregiver role.

Contextual factors such as LTC policy, labor market policy, and socio-cultural norms play important roles in influencing the decision to serve as a caregiver and in supporting those who decide to provide care once that decision has been made (Broese van Groenou & De Boer, 2016; Plöthner et al., 2019). Thus, in order to maintain the supply of family carers and support their caregiving role, a set of policies targeted at family carers is needed. There are three possible areas where governments may operate in order to support informal caregivers (Figure 4.1): (1) carer compensation and recognition, (2) labor market policy, and (3) carers' physical and mental wellbeing (Colombo et al., 2011; Lethin et al., 2016). Each area is discussed in turn.

4.4.1 Compensating and recognizing informal carers

One form of compensating caregivers in Europe is the provision of cash benefits, paid directly to carers through a carer allowance or paid to those in need of care, who can then use that cash to compensate family carers (MISSOC, 2019). Only a handful of countries in Europe make use of direct payments exclusively (e.g., Finland, Hungary, Ireland, the United Kingdom); slightly more than half have introduced cash benefits paid to the care recipient, so-called Cash-for-Care (CfC)

schemes (e.g. England, Sweden, the Netherlands) (European Commission, 2018; Riedel & Kraus, 2016; MISSOC, 2019). A few European countries have combined the two types of cash benefit arrangements (e.g. England, the Netherlands and Sweden) (Riedel & Kraus, 2016). Both cash benefits arrangements have their advantages and disadvantages (Colombo et al., 2011; MISSOC, 2019) as outlined below.

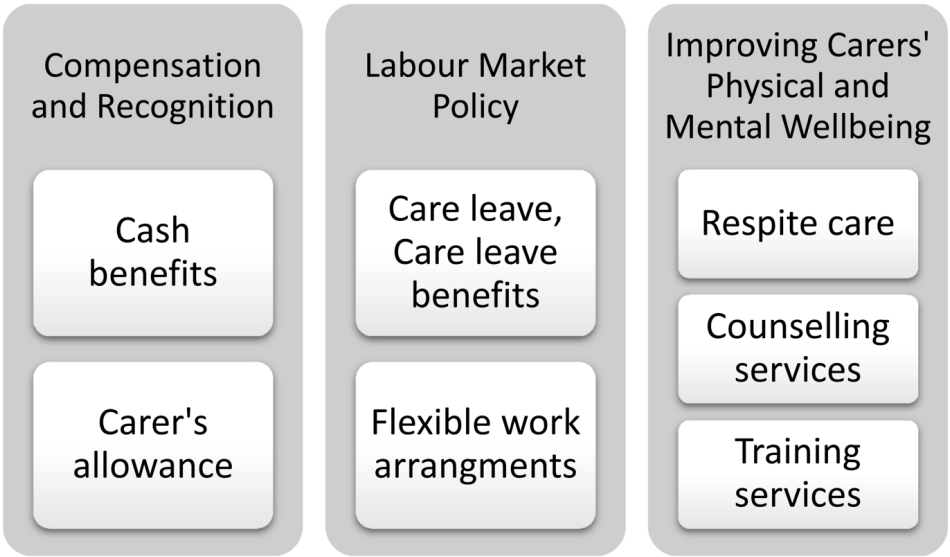


Figure 4.1 Strategies for Supporting Informal Caregivers

Direct cash benefits to dependent individuals in need of care (CfC schemes) help them purchase different types of home care from the supplier of their choice (Da Roit & Le Bihan, 2010). These types of cash benefits are often used to pay family members to provide informal care or to relieve informal caregivers by purchasing formal home-based care (Van den Berg & Hassink, 2008). The aim is to increase the independence of the older adult in choosing carers, and to enable family carers to be formally hired (Da Roit & Le Bihan, 2010).

Eligibility rules for CfC schemes vary among different countries, depending on: 1) the degree of care dependency, 2) income and assets, and 3) care recipient's age (European Commission, 2018; Courtin, Jemiai & Mossialos, 2014). Portugal, Greece and the Netherlands do not set minimum levels of dependency to obtain cash benefits, only France has established an age limit on access to benefits (MISSOC, 2019). Some countries permit care recipients to hire their spouses (e.g. Denmark,

Poland, Bulgaria); in France, care recipients can hire spouses to provide care only under certain, limited circumstances, as they are already responsible under the law to provide assistance to their partners (MISSOC, 2019).

There are several possible shortcomings in promoting informal care through the provision of cash benefits to care recipients. This approach makes carers financially dependent on those in need of care who are providing the compensation. This could be a particular problem in countries where family caregivers are not protected by work contracts and are not entitled to holidays, sick leave, or pension rights (e.g. the Czech Republic, Germany, Spain) (MISSOC, 2019; European Commission, 2019). This is in contrast to countries such as the Netherlands, where informal caregivers paid for by cash benefits are protected by a work contract and are entitled to social security benefits (European Commission, 2018; Alders & Schut, 2019). Additionally, there is concern that CfC schemes risk monetizing family relations. This may result in situations where care recipients select among family members who compete for the paid caregiving role (Colombo et al., 2011)

The alternative direct cash benefit arrangement attempts to compensate carers for reduced working hours or for any costs incurred as a result of caretaking. This arrangement exists in the Scandinavian countries where municipalities employ family caregivers directly and pay them a salary. Variations in the eligibility criteria and amount of the care's allowance exist across countries offering direct cash benefits to carers (Courtin, Jemiai & Mossialos, 2014). Such benefits are usually granted in order to keep dependent individuals at home for as long as possible (Colombo et al., 2011). However, direct cash benefits to carers may over-incentivize informal care provision by, for example, leading carers to limit or eliminate hours working outside their home (Colombo et al., 2011), which can negatively affect labor supply. It is therefore important for policymakers to carefully consider the size and duration of direct cash benefits to ensure that carers are compensated but not encouraged to drop out of the labor market (European Commission, 2019).

Several European countries, largely concentrated in some Eastern and Southern Europe, have introduced limited to no cash benefit arrangements to date to support informal caregivers (Courtin, Jemiai & Mossialos, 2014). Informal care is common in Poland, for example, but a nursing benefit which can be used to pay family members, is only available to pensioners over 75 years of age, irrespective of their need of care, and was as low as 215.84 PLN ($55) per month in 2019. In addition, the care supplement, a universal benefit to individuals 75 and older, was just 222 PLN ($58) per month in 2019, again, irrespective of the need for care (MISSOC, 2019; Riedel & Kraus, 2016). These amounts are too low to adequately compensate

family members for the time and expenses associated with caregiving. In Romania, older adults and their carers are not eligible for cash benefits in any form, even though those in need of care mostly rely on informal care (European Commission, 2019). Similarly, in Bulgaria, although informal care is common, it is not financially encouraged, and family members need to bear direct and indirect costs related to caring without governmental assistance. Cash benefits in the form of care provision allowances are available in Spain but they are not available in the form of a carer allowance (Bover, 2011). A similar situation can be found in Italy where CfC schemes only include cash benefits to dependent persons (MISSOC, 2019).

4.4.2 Labor market policy

Providing informal care to an older family member while remaining professionally active may be difficult, especially if there are also other dependents (children) that require care. Some individuals decide to reduce their work hours or even drop out of the labor market in order to provide care for an aging relative (Lilly, Laporte & Coyte, 2007). Labor market policy is thus another way to promote and support informal caregivers. In many European countries, employees are able to take unpaid leave in order to care for dependent persons. Countries allow carers to take varying lengths of paid leave if necessary. Such arrangements enable individuals to retain employment and income while attending to their caregiving duties (European Commission, 2012; European Commission, 2018). A disadvantage of this approach is that in some cases, care leaves are only available to those caring for older adults with terminal illnesses, which neglects the care needs of individuals with non-terminal diseases, who also require considerable care (Colombo et al., 2011).

Austria strongly supports carers who do not want to quit their formal employment while caring for an older relative. Under the Care Allowance Act, caregivers are allowed to make use of full-time or part-time care leave. Additionally, this policy enables carers to take a so-called family hospice leave if an older family member is terminally ill (Schmidt, Fuchs & Rodrigues, 2016). Individuals who decide to stay at home and take on a caregiving responsibility may be eligible to receive care leave benefits for up to three months. Care leave benefits in Austria are income-related and equal to the amount of unemployment benefits (European Commission, 2019; MISSOC, 2019). The Netherlands offers paid emergency leaves that enable caregivers to stay at home for a few days in the case of a death or sudden illness; to arrange paid short-term leaves of up to 10 days a year in order to provide care for older adults, at 70% earnings; and to have long-term term unpaid leaves. In Belgium, carers may reduce their working hours for up to 36 months in order to support seriously ill relatives. The amount of benefit varies based on age, civil status and years of employment. In addition, carers are entitled to a career break in order

to provide medical assistance to an ill dependent or to provide palliative care. The length of the career break may be up to 24 months for complete discontinuation and 48 months for partial discontinuation per caregiving episode (European Commission, 2016; MISSOC, 2019).

Another form of supporting policy that enables caregivers to combine their caring responsibilities with paid work is the introduction of flexible work arrangements. Flexible working hours enable caregivers to retain their job while accommodating the care needs of dependents. The availability of part-time jobs varies greatly between European countries but even when part-time jobs are available, only a small share of them are filled by caregivers (Colombo et al., 2011; Courtin, Jemiai & Mossialos, 2014). In the Netherlands, most companies (89%) offer some part-time positions but less than 5% of those positions are occupied by caregivers. In Greece, only 16% of companies have part-timers, out of which just 1% is used for care reasons. Part-time work is more frequently requested in the context of child care than long-term care. Also, there is a substantial variability among European countries when it comes to the duration of part-time work, which may be requested for care reasons and the possibility of reverting back to subsequent full-time employment. In Germany, for example, individuals may reduce their working hours for a duration of 24 months, while in Austria, it is only up to 3 months (MISSOC, 2019).

It is undeniable that flexible work arrangements help carers balance work and caretaking. It is important, however, to remember that caring for an older adult is unpredictable in duration and intensity. Furthermore, some illnesses may be episodic in nature and require carers to divide leaves and/or periods of part-time employment over several occurrences. Under circumstances such as these, other forms of flexible work arrangements may be preferable, for example, allowing carers to decide their work schedule on a week-to-week basis during periods when caregiving demands are particularly unpredictable (Colombo et al., 2011). To meet the growing caregiving demands of an aging population it is therefore important to introduce mechanisms within the labor market to enable carers to combine paid work and caregiving (Schmidt, Fuchs & Rodrigues, 2016).

4.4.3 Improving carers' physical and mental wellbeing

As mentioned previously, informal caregiving is associated with negative physical and mental health outcomes. Policies have thus been introduced to relieve some of the stress experienced by family carers. These policies range from respite care to counseling services and assistance coordinating help (Courtin, Jemiai & Mossialos, 2014).

Respite care is considered a fundamental form of support for informal caregivers. The pivotal goal of respite care is to reduce caregivers' burden and stress by providing breaks from regular caring duties through the use of alternative care arrangements, including in-home care, adult day services, and overnight care (Zarit et al., 2017). Respite care may take place in different settings, including within the community or institutions, and can be provided by different agents such as nurses, family, or friends (Colombo et al., 2011). Providing breaks to informal caregivers has multiple benefits for their health and wellbeing, which, in turn, enables them to take care of their dependents for longer than otherwise possible without those pauses (Vandepitte et al., 2016). Specifically, in the study conducted by Allen et al.'s (2022), informal caregivers expressed their need for respite care services in the transitional care of older adults.

Despite its benefits, it has been reported that a high proportion of informal caregivers do not make use of respite care. One reason is limited access to and the high cost of respite care (Colombo et al., 2011). Another reason is the belief that respite care services negatively impact care recipients (Phillipson, Magee & Jones, 2013). Thus, it is necessary to introduce policies that make respite care more available and accessible to those who need it (Colombo et al., 2011). Not all countries in Europe (e.g. Poland and Bulgaria) grant legal entitlement to respite care. Moreover, short-term respite care is financed directly by families in most countries, with subsidies reserved for the lowest income individuals. There are exceptions, however. Germany and Austria, for example, provides financing for respite care for up to four weeks (MISSOC, 2019).

Counseling and training services are also an important way to support informal caregivers. Access to support from health care and social services may not only improve the wellbeing of the caregiver but may also lead to improved care for care recipient. Additionally, Chapter 2 and 3 suggested that educating and involving informal caregivers might have an impact on care transitions of older adults. In line with that, a study carried out by Sokas et al.'s (2021) reported that a lack of preparedness to provide care post-transition might have an impact on higher readmission rates for patients discharged home to existing and new informal caregivers. Suhonen et al.'s (2015), for example, found that some family caregivers lack knowledge regarding the disease, prognosis, and care routines for patients with dementia. Furthermore, other studies reported that caregivers might also require support with problem-solving and decision-making during care transitions (Hoffman et al., 2019; Tomlinson et al., 2020). This lack of knowledge suggests that counseling and training services that empower carers to provide care at home could prove essential in enabling them to successfully assume their caregiving

responsibilities and ultimately optimize care transitions (Allen et al., 2022; OECD, 2015; Sokas et al., 2021).

In Europe, most training and social support services are provided at the local level by NGOs (non-governmental organizations) and the private sector. Nevertheless, in some countries more comprehensive and integrated counseling systems can be found (MISSOC, 2019). Sweden provides family carers with innovative technological solutions such as e-care, e-health, peer support, and e-learning about caregiving. These services help carers cope with their caregiving role. Additionally, in some parts of Sweden, there are support groups and centers for caregivers. Within those groups, caregivers may share their experiences, frustrations, and problems with other carers and professionals. The Dutch government uses a preventive counseling and support approach where social workers carry out house visits, provide information to carers, and follow-up. In Spain, caregivers have access to online platforms that provide them with assistance in their caregiving role (Colombo et al., 2011). The provision of counseling support to family carers is essential not only for the carer, but also for ensuring the quality of care provided (Courtin, Jemiai & Mossialos, 2014).

4.5 DISCUSSION AND CONCLUSION

Over the past decade, many European countries have tried to encourage the provision of informal LTC. Cost-containment is one of the reasons for this shift. Evidence has shown that increased availability of informal care and home-based support significantly decreases public care expenditures (Kehusmaa et al., 2013). Without adequate strategies to address caregivers' needs, however, the increased reliance on informal care may have negative impacts on both caregivers and care-recipients. Overburdened caregivers are more likely to suffer from poor physical and mental health. Besides, unsupported and unprepared informal caregivers are more likely to put older adults at risk of suboptimal care transitions. Moreover, without appropriate labor market policy, family carers are likely to reduce working hours or drop out of the labor market, with adverse consequences for their economic wellbeing. Given these challenges, policymakers need to focus on minimizing the negative effects of caregiving and optimizing care transitions through the introduction of supportive strategies that involve: compensating and recognizing carers, offering paid/unpaid leave, promoting flexible work arrangements, and providing respite care and counseling services.

Cash benefits are a particularly common method of supporting informal caregivers. Cash benefits are often used to pay a family member to provide care and have

multiple advantages, including promoting clients' freedom of choice and relieving the financial burden on carers. Furthermore, many CfC schemes allow beneficiaries to employ and compensate relatives, thus "formalizing" the informal caregiving relationship. Paid and unpaid leave and flexible work arrangements enable carers to stay professionally active and have stable incomes. Providing training and counseling supports informal caregivers by providing them with the requisite skills and knowledge needed to perform their caregiving duties successfully.

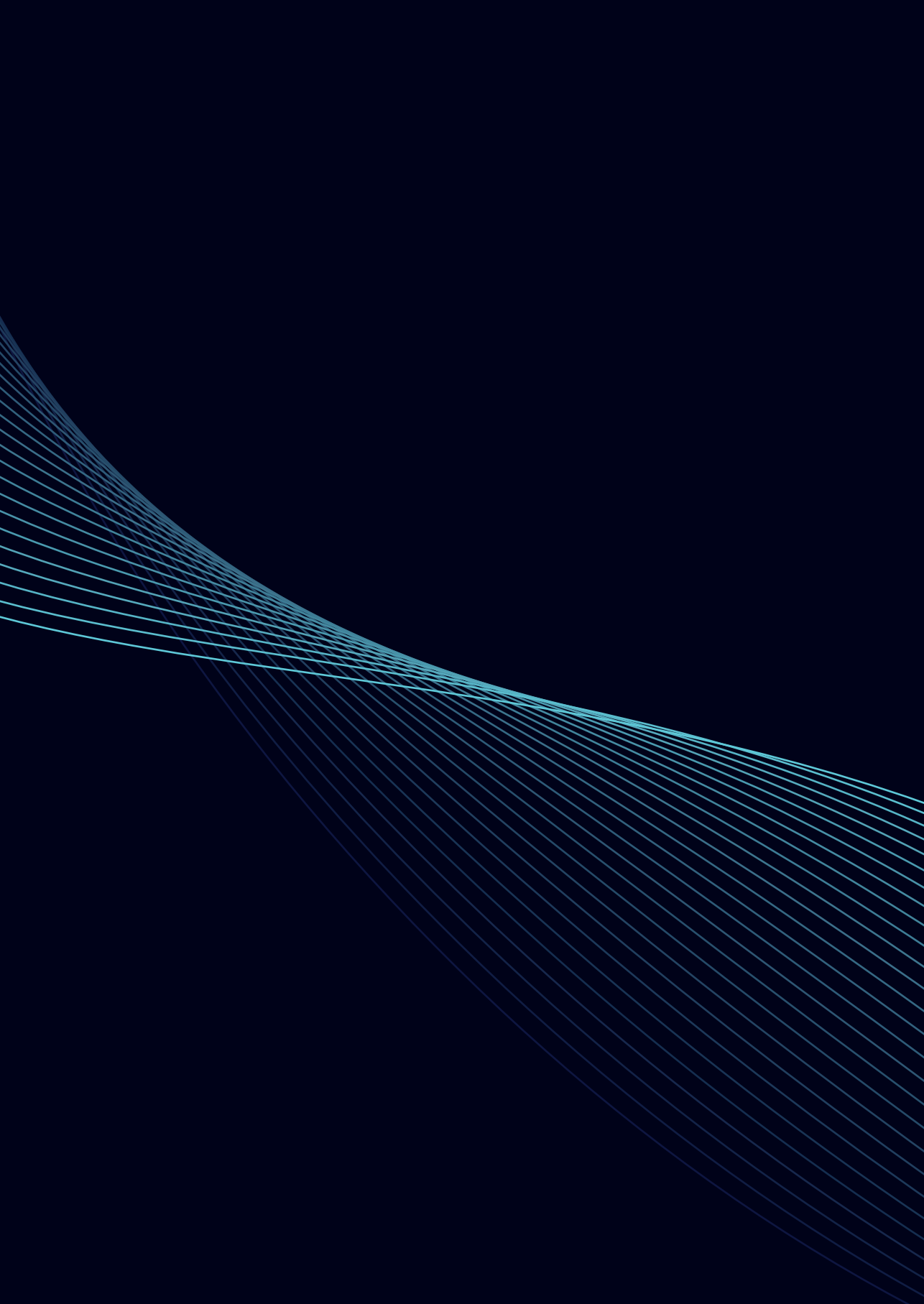
Some European countries, e.g., Sweden, Denmark, and the Netherlands have a more developed for supporting informal caregivers than others. Other European countries, however, have yet to implement comprehensive approaches to supporting unpaid caregivers, while other countries have only made modest progress. Therefore, it is critical that policymakers accompany policies intended to promote "aging in place" with careful consideration of how best to allocate responsibilities and funding across the formal and informal care sectors. Stronger support for informal caregiving is especially important to remediate the negative effects of caregiving, optimize care transitions and ultimately improve the lives and experiences of informal caregivers and the older adults they are caring for.

There are, however, challenges to enacting strong caregiver supporting policies related to social norms about gender, family, home, and personal responsibility. Traditional norms about family responsibility to provide care to family members when needed, can prevent informal caregivers from seeking support while concealing the need of supporting policies (Levitsky, 2014). Even if such policies are implemented, they can drift in a different direction depending on the context and stakeholders involved. The notion of policy drift explains that institutional changes constantly occur, and they can shift policy effects in directions not intended when originally adopted (Hacker, 2004). An example could be the introduction of a CfC scheme previously non-existing in the country, which presents a major formal revision of existing policy implemented with the aim to support informal caregivers. A CfC scheme has however the potential to over-incentivize informal care provision and reduce the need of formal care. This might discourage care institutions to develop and expand their home-based care services, which on the long-run might reduce the supply of formal home-based care and increase the burthen for informal care givers even though these effects have not been the policy intention. Furthermore, Rocco (2017) explains that political and policy barriers related to partisanship, institutional veto points, and the cost of policy updating may impact the broad patterns of policy drift that takes place, as well as the scope of policy change possible. The latter, in particular, suggests that minor and less costly legislative and administrative changes, like incremental adjustments in

existing support programs, are more likely to be promulgated than major expensive and significant changes, like adopting an entirely new caregiver support program. Additionally, context-specific changes in demography, technology or economic conditions may have implications for existing policies, and expose informal caregivers to economic and social risks such as unemployment or limited access to social benefits. Thus, it is important to adapt policies to changing environments (Hacker, 2004).

Future studies should focus on qualitative exploration of care provision aspects, specifically the impact of supporting informal caregivers, their education and their involvement in the care transitions of older adults. As indicated in the model proposed in Chapter 2, these care provision aspects might have an impact on care transitions. Thus, understanding the perspectives and opinions of different stakeholders is an essential step to developing policies that would improve not only the wellbeing of informal caregivers but could also lead to optimization of care transitions.

Finally, policymakers should keep in mind that informal care will not solve the issue of demand-supply imbalance in LTC. Even though countries may encourage informal care, the number of caregivers will continue to shrink due to declining birth rates, and will be insufficient due to the increasing age-dependency ratio. Formal care provision should be enhanced as well. Nevertheless, informal caregivers will continue to play an important role, and their health and wellbeing need to be protected, in part, by addressing disparities in the level of support provided across the EU.

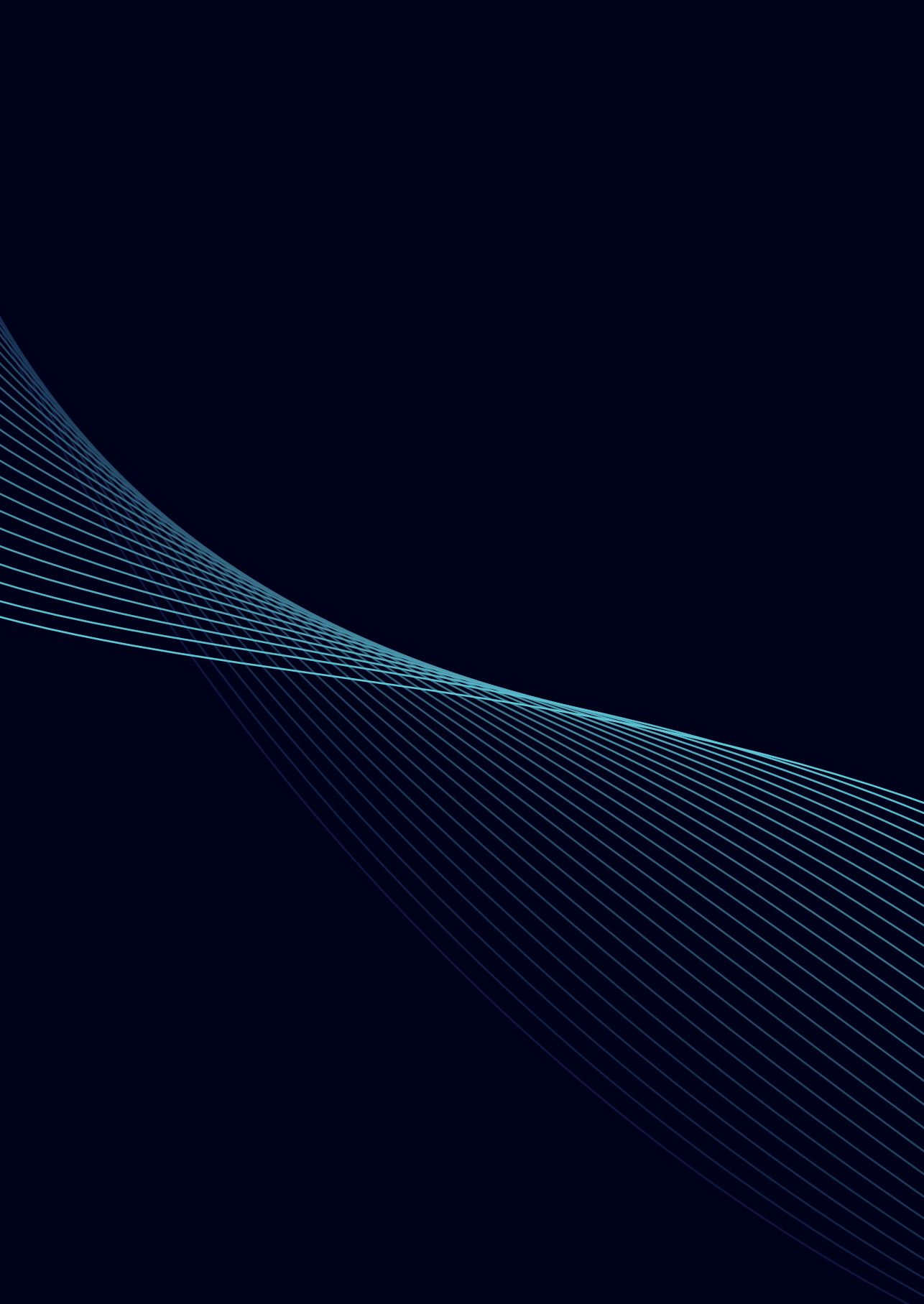


CHAPTER 5

Organizational and Financial Challenges Regarding Care Transitions in Long-Term Care Systems: A Qualitative Study in Germany, the Netherlands and Poland

The chapter draws upon:

Wieczorek E, Kocot E, Evers S, Sowada C, Pavlova M. Organizational and financial challenges regarding care transitions in long-term care systems? A qualitative study in Germany, the Netherlands and Poland. Submitted for publication



CHAPTER 6

Development of a Tool for Assessing the Performance of Long-Term Care Systems in Relation to Care Transition: Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC)

The chapter draws upon:

Wieczorek E, Kocot E, Evers S, Sowada C, Pavlova M. Development of a Tool for Assessing the Performance of Long-Term Care Systems in Relation to Care Transition: Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC). Accepted for publication at BMC Geriatrics

ABSTRACT

Background

Carrying out performance assessments is important step in improving the quality and safety of care transitions. Therefore, the main objective of this chapter is to present the development of an evaluation tool for assessing the performance of long-term care systems in relation to care transition, namely the Transitional Care Assessment Tool in Long-Term Care.

Methods

The development of the Transitional Care Assessment Tool in Long-Term Care involved three steps. First, a conceptual model based on Donabedian's quality framework and literature review was developed. Second, a thorough process of item pool generation using deductive (systematic literature review) and deductive-inductive methods (in-depth interviews) with experts in the field of long-term care was carried out. Third, preliminary validation of the tool was conducted by asking experts in research and practice to provide an opinion on a tool and to assess content validity. Future fourth step will involve a tool's pilot.

Results

By applying methodological triangulation, the Transitional Care Assessment Tool in Long-Term Care was developed. The tool consists of 2 themes, 12 categories and 63 items. Themes include organizational and financial aspects. Organizational aspects include categories such as communication, transfer of information, availability and coordination of resources, training and education of staff, education/support of the patient/informal caregiver, involvement of the patient/informal caregiver, telemedicine and e-Health, and social care. Financial aspects include categories such as primary care, hospital, and long-term care. In this chapter the instructions on the application of the Transitional Care Assessment Tool in Long-Term Care are also presented.

Conclusions

The Transitional Care Assessment Tool in Long-Term Care is the first tool to assess the performance of long-term care systems in relation to care transition. Assessments can be carried out at the national and international level and enable to monitor, evaluate, and compare performance of the long-term care systems in relation to care transition within and across countries.

6.1 BACKGROUND

Care transitions are vulnerable exchange points for older adults with complex care needs (Coleman et al., 2003; Oakes et al., 2011). Older persons often require care services from different practitioners in multiple settings, but practitioners tend to work in silos and are unaware of services delivered in previous settings (Davis et al., 2012). Lack of coordination, communication, and transfer of information between the settings may lead to poorly executed transitions (Kripalani et al., 2007), as also outlined in Chapter 2. Nonetheless, not only organizational aspects may affect the care transition of older adults. A study presented in Chapter 3 pinpointed the importance of financial aspects (provider payment mechanism, reward, and penalty) and their impact on care transition in long-term care systems. A growing body of evidence suggests that a high proportion of care transitions among older adults is far from optimal. Fragmented care transitions are often associated with preventable adverse events, rehospitalizations and compromised patient outcomes (Forster et al., 2003; van Walraven et al., 2011). Moreover, suboptimal care transitions may lead to unnecessarily high rates of health service use and health care spending in both, health and social care systems (Jencks, Williams & Coleman, 2009). The recommendation of the World Health Organization (2016) is to avoid, if possible, or to optimize transitions between the settings as they are high-risk scenarios for patient safety. Given the importance of this issue, improving the quality and safety of transitional care is an international priority, and efforts are being made by governments worldwide to optimize care transitions (The Community Care (Delayed Discharges, etc.) Act 2003; Patient Protection and Affordable Care Act 2010).

Nonetheless, to improve quality of decisions undertaken by different actors such as practitioners, managers, governments, policymakers, and payers/insurers, health system performance measurements are needed (Smith et al., 2008). Performance measurement instruments have two important goals, first, to promote accountability, and second, to improve the performance of the system. According to Donabedian (1966), there are three approaches to assessment. The first approach focuses on the "structure"; the second one focuses on the "process" and the last one on "outcomes". Assessments examining the "structure" study the settings and instrumentalities with which care is delivered. It might refer to the adequacy of facilities and equipment but also to the training and qualifications of the staff. At the same time, examining "process of care" allows us to answer the question: of whether health care (in this instance transitional care) is properly practiced. Process measures may be indicators of future success or failure (Donabedian, 1966). Process indicators are easy to measure, to interpret, provide clear pathways

for action, and capture aspects of care that are valued by patients (Mant, 2001). The last approach focuses on "outcomes" and has been widely used as an indicator of the quality of medical care. Outcome indicators reflect the impact of the health care service on the patient. Examples of outcome measures include mortality, survival, disease prevalence etc. Nevertheless, the use of outcome as the criterion for quality is questioned because many other factors other than medical care could affect the outcome (Mant, 2001).

Currently, to the best of our knowledge, there is no assessment tool dedicated to measuring the performance of long-term care systems in relation to care transition. Existing tools, such as Care Transition Measure (CTM) and Partners at Care Transitions Measure (PACT-M) do not assess care transition as part of the long-term care system. There are plenty of measures that assess only selected aspects related to care transition (e.g., discharge planning, patients' experience) or focus on care transition between specific settings such as the hospital, home etc. (Grimmer & Moss, 2001; Teale & Young, 2015; Uittenbroek et al., 2016). For instance, CTM is a tool used to assess the quality of the transition between hospital and home (Coleman, Mahoney & Parry, 2005). Similarly, PACT-M also focuses on care transition from hospital to home (Oikonomou et al., 2019). Existing tools, even though valued, have a narrow focus. According to Kohn, Corrigan and Donaldson (2000) and the report "To Err is Human" efforts to improve patient safety should be centered around the system rather than providers. Likewise, OECD report titled "Caring for Quality in Health" also emphasizes the importance of systemic changes and their impact on quality and efficiency of care (OECD, 2017). For the purpose of this study, we define long-term care system as all organizations, providers, individuals, and actions with the primary aim to promote, maintain and/or improve the wellbeing, health and functional ability for individuals with limitations in intrinsic capacity (WHO, 2022).

The main objective of this chapter is to present the development of an evaluation tool for assessing the performance of long-term care systems in relation to care transition. We provide details of the methods used to develop this tool, which was named Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC), as well as the tool itself and the guide on how to apply it. The results of the application of the tool will be reported elsewhere.

6.2 METHODS

The development of the TCAT-LTC involved three steps (see Figure 6.1). We followed guidelines on scale development by DeVellis (2003). First (1), we developed a conceptual model based on Donabedian's (1966) quality framework and literature review presented in Chapter 2 and Chapter 3. Second (2), we carried out a thorough process of item pool generation using deductive and inductive methods as recommended by DeVellis (2003) and Morgado et al's (2017). In this step, we performed a systematic literature review (deductive method) and semi-structured, in-depth interviews (deductive-inductive method) with experts in the field of long-term care. Third (3), we conducted preliminary validation of the tool by asking experts in research and practice to provide an opinion on the tool and to assess content validity. Future fourth step will involve a tool's pilot with country experts from Germany, the Netherlands and Poland.

Step 1. Development of a conceptual model

For the purpose of this study, we defined care transitions as "a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location. Representative locations include (but are not limited to) hospitals, sub-acute and post-acute nursing facilities, the patient's home, primary and specialty care offices, and long-term care facilities" (Coleman, Boult & American Geriatrics Society Health Care Systems Committee, 2003, p. 556). Thus, in this study, we focus on care transitions occurring in both, health care and social care sector, and between those sectors. We adopt this approach given the focus of our study on long-term care systems. World Health Organization (2022) suggests that long-term care system encompasses all organizations, providers, individuals, and actions that's objective is to promote, maintain or improve the wellbeing, health, and functional ability for persons with limitations in intrinsic capacity. Moreover, given that presented study is conducted along European TRANS-SENIOR project that focus on optimization of care transitions of older adults, the primary focus of this study is on older adults. This patient group is particularly often in need of long-term care services and therefore, at higher risk of care transitions. Even though, the focus of our study is on older adults, the results of this study could be used for other patient groups as well. However, it is crucial to consider the specific needs of studied groups that might differ from those of older patients. We built the assessment tool involving two approaches out of three proposed by Donabedian (1966), namely structure and process. By focusing on these two approaches, we want to provide the evaluators with a better understanding of the relative magnitude of associations between structure and process and their impact on quality of care (Donabedian,

1966). Through a literature review, we defined important core organizational and financial aspects that are relevant to care transition and decided that TCAT-LTC will focus on the following areas:

- ☐ How well is long-term care system performing when it comes to organizational aspects of care transition?
- ☐ How well is long-term care system performing when it comes to financial aspects of care transition?

Step 2. Item pool generation

Item pool generation had two phases. First, we used a combination of deductive and inductive methods to build on the item pool, namely, we conducted a systematic literature review and semi-structured in-depth interviews with experts in long-term care. Second, we carried out multiple meetings with the research team to discuss the relevance and clarity of items and to refine the item list.

☐ ***Literature review***

We used MEDLINE, EMBASE and CINAHL to search for relevant studies between 2005 and 2020 using three components to build the search terms: (1) old or geriatric or senior; (2) care transition or coordinated care or care continuity; (3) financing or organization. The search strategy was consulted with an academic health sciences librarian. The detail on the review methodology can be found in Chapter 2 and Chapter 3 and on the International Prospective Register of Systematic Reviews (PROSPERO) platform under identification number CRD42020162566. The review results from Chapter 2 and Chapter 3 were used to build on the item pool by identifying key core organizational and financial aspects that are relevant for care transition.

☐ ***Semi-structured, in-depth interviews with experts***

Design: We used a qualitative research design to understand what kind of organizational and financial aspects affect care transition in long-term care systems. Detailed information on the interviews is provided in Appendix C1 using the COnsolidated criteria for REporting Qualitative research (COREQ) checklist (Tong, Sainsbury & Craig, 2007). Below, some key methodology aspects are presented. More detailed information on the methods can be found in Chapter 5.

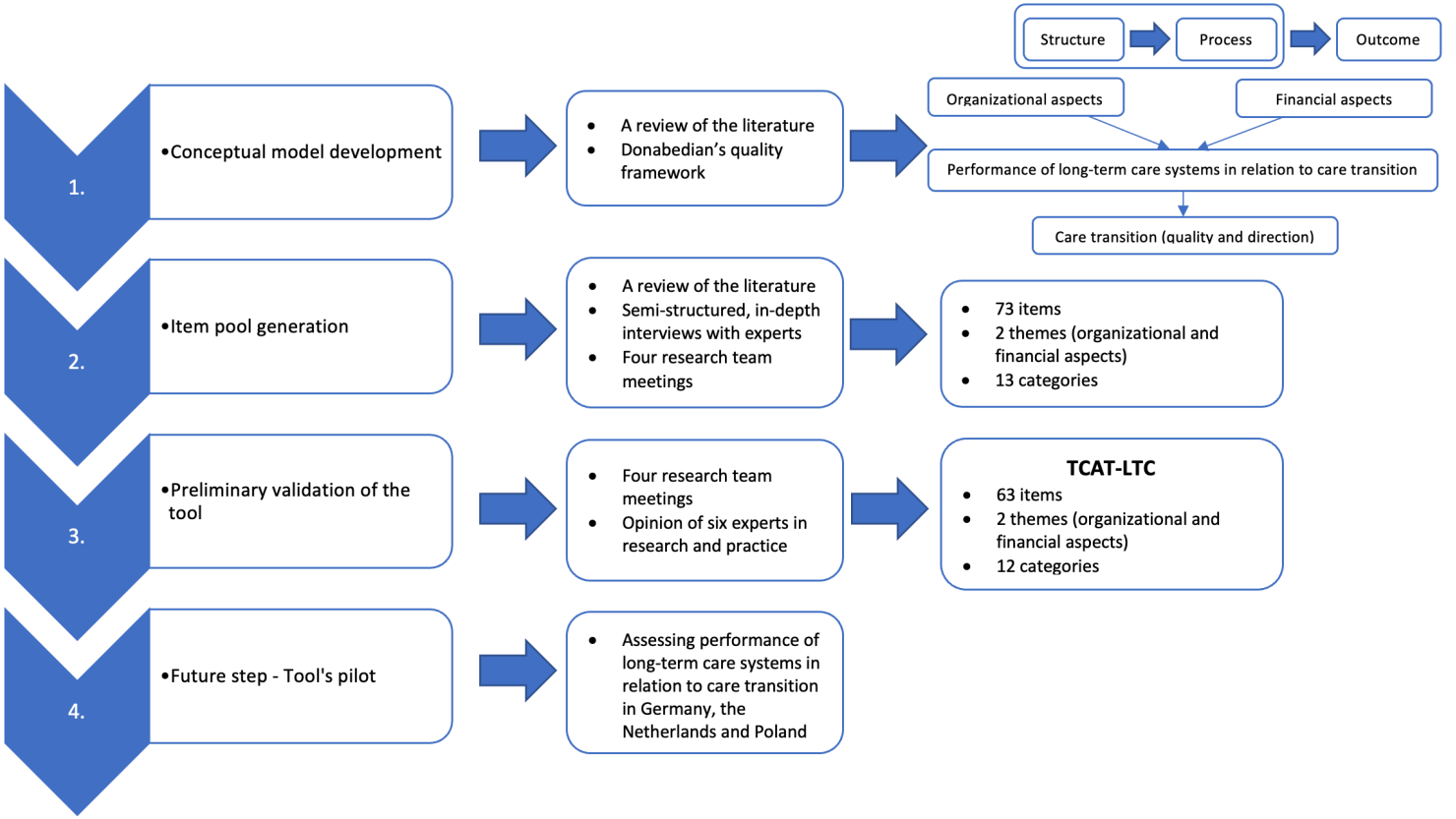


Figure 6.1 Flowchart of the tool development process

Participants: We used a purposive sampling method to identify country experts in long-term care and care transition in Germany, the Netherlands, and Poland. To be included in the study, participants had to (1) represent either providers from primary care, hospital, long-term care or payers/insurers. Also, they had to (2) have some experience with care transitions of older adults and (3) be familiar with one of the long-term care systems in Germany or the Netherlands or Poland. They also had to (4) speak English, German or Polish. We contacted by e-mail 23 potential participants and only one of the approached participants did not respond to the invitation to the study. We provided the respondents with detailed information about the study prior to the interview. All participants suggested the time and the mode/place for the interview. All the interviewees provided informed consent and voluntarily participated in the study. In total, 22 semi-structured interviews were conducted with country experts (8 experts from Germany, 7 experts from the Netherlands and 7 experts from Poland).

Data collection: Interviews were conducted by the main researcher Estera Wieczorek (EW) with the help of a second researcher Christoph Sowada (CS). At first, the interview guide was built based on the results from the literature review. The interview guide was discussed, modified, and accepted by the research team. The first three interviews confirmed that the guide was clear to participants and thus, no adjustments were needed. The interviews were scheduled in the place/mode and at the time suggested by the participant. Majority of the interviews (18 out of 22) were carried out online due to the COVID-19 pandemic. Three interviews were face-to-face and carried out in the workplace of the participants, and one respondent provided the answers through e-mail. All interviewees were carried out once (without repeated interviews) with only the participant and an interviewer/s being present. Each interview lasted, on average 52 minutes (range: 27-107 minutes) and was recorded. Field notes were also taken during the interview. We then transcribed the recordings using Verbatim method (word by word) and sent the transcripts for a member check. Only 2 respondents provided some minor changes to the transcripts. Ethical considerations regarding qualitative study are explained in more detail in Chapter 5.

Data analysis: All the data was downloaded, coded, and analyzed using the method of qualitative content analysis. The analysis was facilitated with the use of ATLAS.ti Version 22. All interviews were coded using a deductive-inductive approach, i.e. the initial set of codes (themes/categories) was informed by the priori literature review, while additional codes (sub-themes/sub-categories) emerged from the interviews. Interviews in English and Polish were coded by the main researcher EW, who is a native Polish speaker, and a fluent English speaker. Interviews in

German were coded by a second researcher CS, who is a native German speaker, fluent Polish, and English speaker; the main researcher EW was also involved to ensure uniformity of coded data. The results were used to challenge the categories coming from the literature review, refine categories, and develop items.

Step 3. Preliminary validation of the tool

The preliminary validation of the tool was performed in two stages. First, the tool was discussed at four separate research team meetings to check for the clarity of the items and to agree on the first draft of the final item pool. Second, we sent an invitation by e-mail to 6 experts in research and practice to preliminary validate the TCAT-LTC tool. Expert panel consisted of two professors and an associate professor in aging and long-term care, an associate professor and assistant professor in health system organization and financing. Experts received an online document and were requested to fill out the form regarding TCAT-LTC tool. The form included a definition of transitional care and short information about the study, the questions regarding the relevance and clarity of each indicators/items. Relevance of an item was rated using a rating scale with 3 response categories: "very relevant", "somehow relevant", "not relevant". Moreover, next to each indicator, experts were invited to provide comments and suggestions for improvement. At last, the form included optional fields where experts could provide general comments and suggestions regarding each category of indicators (e.g., communication), and propose items that should be added to each category. Respondents had 4 working days to provide responses and to send the filled form back by e-mail. All experts could contact the main researcher EW in case of questions. After receiving responses from the experts, the research team met again to analyze the responses. The results were used to review and refine items and categories, and to further improve the tool.

6.3 RESULTS

Step 1. Development of conceptual model

Based on Donabedian's (1966) three-components approach, structure measures may have an effect on process measures, and ultimately affect the outcome measures. Based on Donabedian's (1966) quality framework, organizational and financial aspects could be recognized as structure and process indicators. Systematic literature review that we performed in Chapter 2 and Chapter 3 served as a theoretical foundation and was conducted to identify care provision aspects that affect care transition (Figure 2.2). In line with Donabedian's model, these aspects may affect the outcome (e.g. quality of care transition).

Step 2. Item pool generation

The literature identified in the search pointed out to multiple organizational and financial aspects that may affect care transition in long-term care systems. Organizational aspects included: communication among involved professional groups, transfer of information and care responsibility of the patient, coordination of resources, education and involvement of the patient and family, training and education of staff, e-Health and social care. Financial aspects included: provider payment mechanism, rewards and penalties. More detailed information on the review findings can be found in Chapter 2 and Chapter 3. Findings from the systematic review provided us with a guiding framework for developing the qualitative study.

After developing the guiding framework for this qualitative study, 22 interviews with country experts from Germany, the Netherlands and Poland (8 experts from Germany, 7 experts from the Netherlands and 7 experts from Poland) were conducted. Of those, 18 participants represented providers (7 individuals represented long-term care, 6 primary care and 5 hospital), and four respondents represented payers/insurers. The analysis of the in-depth interviews revealed important organizational and financial aspects affecting care transition in their countries. Detailed information on the findings from the interviews can be found in Chapter 5. We used the responses from the experts to challenge the categories coming from the literature review, refine categories, and develop items. During interviews, experts were asked to discuss in detail all organizational and financial aspects that may affect care transition. There were also requested to indicate potential problems and solutions. Their responses enabled us to build a detailed and comprehensive item pool by developing items for each category. For instance, when discussing the category related to availability and coordination of resources, experts suggested a different type of resources relevant for care transition, among others – human resources. Moreover, country experts elaborated on communication in more detail and provided us with items that make communication effective (e.g., timely and direct communication between providers). At the same time, we also used responses from the interview to create new categories of items. For example, some respondents emphasized the importance of including patient and carer in decision-making process and considering their preferences. As a result, involvement of the patient/family/informal caregivers' category was added.

Step 3. Preliminary validation of the tool

Research team members met 4 times to analyze and refine each category and item included in the tool. After each session, adjustments to the tool have been made by unanimous decision of the team members. During the fourth meeting, the

research team agreed on the final version of the tool, which was sent to six experts for validation. All six experts in research and practice responded to our invitation to provide us with their opinion and feedback on the tool. Nonetheless, one of the experts could not provide the response due to time constraints. Five of the experts sent their responses via e-mail and provided us with the items' relevance rating, comments, and suggestions for improvement. Almost all experts recognized the relevance of the items included. Nevertheless, for a couple of items, the relevance and clarity were questioned. Experts also proposed to clarify and merge some items. After receiving filled forms from the experts, the research team met again to analyze each response. As a result, we adjusted the names of categories, combined, or removed items following the sumscore decision rule (defined as the total score for an item across all judges) (Morgado et al., 2017), and we changed the names of some items. Additionally, we added some more explanations to some items. During an online meeting research team unanimously agreed on the new version of the tool.

Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC)

By applying methodological triangulation based on the three steps presented above, we finalized the TCAT-LTC presented in Table 6.1.. The tool focuses on care transitions occurring in both, health care and social care sector, and between those sectors. TCAT-LTC consists of 2 themes, namely, organizational and financial aspects. Organizational aspects are divided into 8 categories, and there are 3 categories regarding financial aspects. Organizational aspects include categories: communication, transfer of information, availability and coordination of resources, training and education of staff, education/support of the patient/informal caregiver, involvement of the patient/informal caregiver, telemedicine and e-Health, social care. Financial aspects include following categories: primary care, hospital, long-term care. Each category entails dedicated items. In total, TCAT-LTC consists of 63 items. TCAT-LTC could be completed by hand or electronically. Optimally, the assessment should be carried out by at least 2 experts in the field of transitional care of older adults. Moreover, the experts should be aware of the functioning and financing of health and long-term care systems in the assessed country. Experts might make use of data previously collected for other reports and assessments, for instance, health system performance assessment framework of a given country. Nonetheless, some of the information will need to be generated anew. With all necessary information available, the completion of the assessment takes around 2-3 hours, depending on the level of expertise of evaluators. We recommend performing at least once a year an assessment of the performance of long-term care systems in relation to care transition using TCAT-LTC.

Table 6.1 Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC)

Category/sub-category	Indicator	Country 1/ Region 1	Country 2/ Region 2	Country 3/ Region 3
Organizational aspects				
1. Communication	1.1 The use of interprofessional meetings within one setting in specific complex cases			
	1.2 Direct communication between different providers			
	1.3 On time communication			
	1.4 Communication of providers and other health and social institutions (if needed)			
	1.5 Communication of 3 sides (sending-patient/ informal caregiver-receiving)			
2.Transfer of information	2.1 Standardized/structured discharge information			
	2.2 Completeness of transferred information			
	2.3 Timeliness of transferred information			
	2.4 Responsibility for transferring information			
	2.5 Transferring information regarding patients' and/or informal caregivers' preferences			
3. Availability & Coordination of resources	3.1 Number of beds in LTC facilities			
	3.2 Number of staff in LTC			
	3.3 Waiting time for LTC			
	3.4 Number of social care workers			
	3.5 Regular meetings of involved providers/institutions			
	3.6 Availability and involvement of care coordinator			
	3.7 Coordinated discharge process by sending - receiving party			
	3.8 Access to physiotherapists/rehabilitation			
	3.9 Involvement of primary care			
	3.10 Assessing informal caregivers' ability to provide appropriate care (if applicable)			

Table 6.1 Continued.

Category/sub-category	Indicator	Country 1/ Region 1	Country 2/ Region 2	Country 3/ Region 3
4. Training and education of staff	4.1 Availability of trainings regarding transitional care			
	4.2 Availability of trainings provided to case managers/care coordinators (if applicable)			
	4.3 Availability of trainings for care assistants (if applicable)			
	4.4 Obligation to uptake additional courses/trainings			
5. Education/support of the patient/informal caregivers	5.1 Access to education/advise/information for patient and/or informal caregivers (related mostly to medical & caring needs)			
	5.2 Access to information (related to administrative/organizational aspects)			
	5.3 Reimbursement of trainings/courses for informal caregivers			
	5.4 Access to coordinator guiding through the transition process			
	5.5 Access to instrumental support			
	5.6 Access to respite care services			
	5.7 Financial renumeration of informal caregivers			
6. Involvement of the patient/informal caregiver	6.1 Involving patient & informal caregiver in decision-making process			
	6.2 Considering patients' expressed preferences, if possible			
	6.3 Considering informal caregivers' expressed preferences, if possible			
7. Telemedicine and e-Health	7.1 Access to electronic patient record			
	7.2 The use of medical technologies, e-Health to monitor patients' health			
	7.3 Availability of telephone consultations			
	7.4 Availability of video consultations			
	7.5 Access to tele-information			
8. Social care	8.1 Involvement of social care workers to look after the patient			
	8.2 Social care worker involvement in discharge process (in hospital)			
	8.3 Social care worker prepares patient & informal caregiver			
	8.4 Social care worker prepares receiving setting			
	8.5 Social care worker competencies and responsibilities			

Table 6.1 Continued.

Category/sub-category	Indicator	Country 1/ Region 1	Country 2/ Region 2	Country 3/ Region 3
Financial aspects				
9. Primary care				
	9.1 Appropriateness of reimbursement level - sufficient reimbursement level to cover the costs?			
	9.2 Presence of incentives that stimulate cost-efficient care			
	9.3 Sufficient renumeration level of the staff			
	9.4 Compensation for care coordinator/coordination			
	9.5 Reimbursement for transitional care			
	9.6 Out-of-pocket payments			
10. Hospital				
	10.1 Appropriateness of reimbursement level - sufficient reimbursement level to cover the costs?			
	10.2 Presence of incentives that stimulate cost-efficient care			
	10.3 Sufficient renumeration level of the staff			
	10.4 Compensation for care coordinator/coordination			
	10.5 Reimbursement for transitional care			
	10.6 Out-of-pocket payments			
11. Long-term care				
	11.1 Appropriateness of reimbursement level - sufficient reimbursement level to cover the costs?			
	11.2 Presence of incentives that stimulate cost-efficient care			
	11.3 Sufficient renumeration level of the staff			
	11.4 Compensation for care coordinator/coordination			
	11.5 Reimbursement for transitional care			
	11.6 Out-of-pocket payments			
	11.7 Financial contribution by social care institutions to cover LTC costs			

Each question/item can be graded on a three-grade scale. Depending on the answer, countries can score 3, 2 or 1 points, where 3 points are the highest score, and 1 point is the lowest score. If the answer for an item was "not applicable" then the item is excluded from the assessment. Similarly, in case of missing data, there should be an annotation "missing data", and such item is excluded from the assessment. Nonetheless, respondents may use "not applicable" and "missing data" options only in justified cases. The exact instructions for the scoring of each question in the TCAT-LTC can be found in Table 6.2.

At the end of the questionnaire, the total score can be calculated. Evaluators should first sum up the scores from all items for which responses were provided, and then divide the total sum by the maximum number of points that could be scored for all items (excluding items with answer "not applicable", "missing data"). At last, the divided score should be multiplied by 100% to obtain score as a percentage.

For instance, a country scored 142 points in 61 items (2 items were excluded because there were not applicable), therefore, (142 / 183 * 100% = 77,6%). The score can be used as a rough indication on the performance of a country's long-term care system in relation to care transition. The higher the percentage, the more items considered important for care transition have been addressed by the long-term care system.

6.4 DISCUSSION

The objective of this chapter was to present the development of an evaluation tool for assessing the performance of long-term care systems in relation to care transition. We elaborated in detail on the methods used to develop the tool. The TCAT-LTC is, to our knowledge, the first tool that looks at the performance of long-term care systems in terms of organizational and financial aspects, and their relation to care transition.

The proposed TCAT-LTC assess long-term care performance in relation to care transition using a structure and process approach. The TCAT-LTC consists of 63 questions/items, grouped into 2 themes (organizational and financial) and 12 categories. Many of the items in the TCAT-LTC are related and may influence one another. For instance, the number of staff in LTC, number of beds in LTC facilities and appropriateness of reimbursement level may have an impact on waiting time for LTC. The TCAT-LTC shows the interrelation between organizational and financial aspects, and structure and process.

Table 6.2. Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC) Instruction

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
Organizational aspects					
1. Communication	1.1 The use of interprofessional meetings within one setting in specific complex cases	Are different professionals from one setting meeting (e.g., in the form of round-table meetings) to discuss patients' case in specific complex cases?	Yes, it is performed with nearly all complex cases	It is rarely performed, even in complex cases	No, it is almost never performed
	1.2 Direct communication between different providers	Are providers in personal contact regarding planned/ during care transition? (e.g., hospital – primary care, long-term care – hospital, long-term care - social care, ambulatory long-term care – stationary long-term care). Consider all forms of communication (e.g., verbal, written, digital)	Yes, it is performed with nearly all patients	It is rarely performed, only in specific cases	No, it is almost never performed
	1.3 On time communication	Is communication between providers on time and without delay?	Yes, communication between providers is on time	Communication is often delayed and affect continuity of care	Communication is always delayed and affect continuity of care
	1.4 Communication of providers and other health and social institutions (if needed)	Is there communication between providers and other health and social institutions (including payers/insurers/ organizers of long-term care) regarding patient's case?	Yes, it is performed with nearly all patients	It is rarely performed, only in specific cases	No, it is almost never performed
	1.5 Communication of 3 sides (sending-patient/ informal caregiver-receiving)	Is patient and/or informal caregiver involved in communication between sending and receiving setting?	Yes, it is performed with nearly all patients	It is rarely performed, only in specific cases	No, it is almost never performed

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
2.Transfer of information	2.1 Standardized/structured discharge information	Is discharge information standardized/structured?	Yes, there is standardized/structured discharge information provided for nearly all patients	Standardized/ structured discharge information is rarely provided	No, standardized/ structured discharge information is never performed
	2.2 Completeness of transferred information	Is transferred information complete and includes all essential information to provide high-quality care?	Yes, transferred information is always complete and includes all essential information	Transferred information is often incomplete and doesn't include all essential information	No, transferred information is always incomplete and doesn't include all essential information
	2.3 Timeliness of transferred information	Is transfer of information on time?	Yes, information is almost always transferred on time	Transferred information is rarely on time	No, transferred information is always delayed and never on time
	2.4 Responsibility for transferring information	Is there an individual responsible for transferring information? Is there a person who can be contacted in case of any issue?	Yes, there is a person responsible for transferring information that can be contacted in case of any issue	There is a person responsible for transferring information, but there is no one who could be contacted in case of any issue	No, there is no person responsible for transferring information and there is no person who could be contacted in case of any issue
	2.5 Transferring information regarding patients' and/ or informal caregivers' preferences	Are patients' and/or informal caregiver preferences included in the transferred information? (e.g., preferences concerning long-term care placement, medical treatment, activities of daily life living)	Yes, patients' and/or informal caregivers' preferences are always included in the transferred information	Patients' and/or informal caregivers' preferences are rarely included in the transferred information	No, patients' and/or informal caregivers' preferences are never included in the transferred information

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
3. Availability & Coordination of resources	3.1 Number of beds in LTC facilities	Is number of beds in different LTC facilities sufficient to address older population needs?	Yes, the number of beds in different LTC facilities is sufficient to address older population needs	The number of beds in different LTC facilitates is limited/ insufficient	No, the number of beds in different LTC facilities is very limited and very far from addressing older population needs
	3.2 Number of staff in LTC	Is number of staff sufficient in LTC to address older population needs?	Yes, the number of staff in LTC is sufficient to address older population needs	The number of staff in LTC is limited/insufficient to address older population needs	No, the number of staff in LTC is very limited and very far from addressing older population needs
	3.3 Waiting time for LTC	Are patients able to access LTC without waiting time?	Yes, nearly all patients can access LTC without any waiting time	Patients often experience long waiting time to access LTC	No, nearly all patients experience long waiting time to access LTC
	3.4 Number of social care workers	Is number of social care workers sufficient to address older population needs?	Yes, the number of social care workers is sufficient to address older population needs	The number of social care workers is limited/insufficient to address older population needs	No, the number of social care workers is very limited and very far from addressing older population needs
	3.5 Regular meetings of involved providers/institutions	Are there regular meetings of stakeholders - including all providers from health care and social system, organizers, payers, involved in the transition process?	Yes, there are regular meetings with different stakeholders	Meetings with different stakeholders are rarely performed	No, meetings with different stakeholders are almost never performed
	3.6 Availability and involvement of care coordinator	Is there a care coordinator available? Is care coordinator actively involved especially in complex cases?	Yes, there is a care coordinator, and he/she is actively involved in nearly all complex cases	There is no care coordinator but someone else performs a similar function, but he/she is rarely actively involved in complex cases	No, there is no care coordinator

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
	3.7 Coordinated discharge process by sending - receiving party	Is discharge process coordinated between sending – receiving party?	Yes, the entire discharge process is coordinated between sending – receiving party for nearly all patients	The discharge process is rarely coordinated between sending - receiving party	No, the discharge process is almost never coordinated between sending – receiving party for any patient
	3.8 Access to physiotherapists/rehabilitation 3.9 Involvement of primary care	Is there an access to physiotherapists/rehabilitation in a setting, for instance, primary care, hospital, long-term care?	Yes, nearly all patients can access physiotherapists/rehabilitation without any problem	Patients rarely have access to physiotherapists/rehabilitation	No, nearly all patients do not have access to physiotherapists/rehabilitation
	3.10 Assessing informal caregivers' ability to provide appropriate care (if applicable)	Is primary care involved in patients' care at all levels/in all settings?	Yes, primary care is involved in nearly all patients care at all levels/in all settings	Primary care is rarely involved in patients' care at all levels/in all settings, only in specific cases	No, primary care is almost never involved in patients' care at all levels/in all settings
4. Training and education of staff	4.1 Availability of trainings regarding transitional care	Is informal caregivers' ability to provide appropriate care required at home assessed?	Yes, it is performed with nearly all informal caregivers	It is rarely performed, only in specific cases	No, it is almost never performed
	4.2 Availability of trainings provided to case managers/ care coordinators (if applicable)	Are there specialized trainings for case managers/care coordinators available?	Yes, trainings are available	Trainings are rarely available	No, there is no trainings for the staff
	4.3 Availability of trainings for care assistants (if applicable)	Are there trainings on how to provide care to older patient available for care assistants?	Yes, trainings are available	Trainings are rarely available	No, there is no trainings for the staff
	4.4 Obligation to uptake additional courses/trainings	Is there an obligation for staff to uptake additional courses/trainings regarding transitional care?	Yes, there is an obligation	There is no obligation, but it is common for staff to uptake additional courses/trainings	No, there is no obligation

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
5. Education/support of the patient/informal caregivers	5.1 Access to education/advise/information for patient and/or informal caregivers (related mostly to medical & caring needs)	Is there availability of places to educate/advise/inform patient and/or informal caregivers? Consider education/advise/information relating mostly to medical & caring needs.	Yes, places to educate/advise/inform are widely available to nearly all patients and/or informal caregivers	Places to educate/advise/inform are rarely available to patients and/or informal caregivers	No, there is almost no places that educate/advise/inform patients and/or informal caregivers
	5.2 Access to information (related to administrative/organizational aspects)	Is there availability to essential information (including administrative/organizational information) provided to the patient and/or informal caregivers?	Yes, essential information (including administrative/organizational information) is widely available it is provided to nearly all patients and/or informal caregivers	It is rarely available, and it is rarely provided to patients and/or informal caregivers, only in specific cases	No, it is almost never available and provided to patients and/or informal caregivers
	5.3 Reimbursement of trainings/courses for informal caregivers	Are free trainings/courses for informal caregivers funded?	Yes, they are always funded	Trainings/courses for caregivers are funded only from time to time	No, trainings/courses are not funded
	5.4 Access to coordinator guiding through the transition process	Do patient and/or informal caregiver have access to coordinator that guide them through the transition process?	Yes, nearly all patients and/or informal caregivers have access to coordinator	Patients and/or informal caregivers rarely have access to coordinator	No, patients and/or informal caregivers almost never have access to coordinator
	5.5 Access to instrumental support	Do patient/informal caregiver have access to instrumental support (e.g. in form of material goods – wheelchairs, adjustable beds, services or task assistance) or at least support in finding these resources?	Yes, there is easy access to instrumental support to nearly all patients and/or informal caregivers	Access to instrumental support is limited, available only for some patients and/or informal caregivers but support in findings these resources is provided	No, nearly all patients and/or informal caregivers don't have access to instrumental support
	5.6 Access to respite care services	Is there an access to respite care services for informal caregivers?	Yes, there is an access to respite care services	There is an access, but it is rarely used	No, there is no access to respite care services

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
	5.7 Financial renumeration of informal caregivers	Are informal caregivers financially compensated for providing care?	Yes, informal caregivers receive financial compensation	Financial compensation is received by informal caregivers only in specific cases	No, informal caregivers do not receive financial compensation
6. Involvement of the patient/informal caregiver	6.1 Involving patient & informal caregiver in decision-making process	Can patient & informal caregiver choose between solutions offered by the provider/institutions?	Yes, nearly all patients and/or informal caregivers can choose between solutions offered by the provider/institutions	Patients and/or informal caregivers rarely can choose between solutions offered by the provider/institutions	No, patients and/or informal caregivers can almost never choose between solutions offered by the provider/institutions
	6.2 Considering patients' expressed preferences, if possible	Can patient express their preferences and are there any mechanisms that make providers liable to taken them into account? (e.g., financial incentives, legal obligations)	Yes, patients can express their preferences and there are mechanisms that make providers liable/encouraged to take them into account	Yes, patients can express their preferences, but there are no mechanisms that make providers liable/encouraged to take them into account	No, patients can't express their preferences and there are no mechanisms that make providers liable/encouraged to take them into account
	6.3 Considering informal caregivers' expressed preferences, if possible	Can informal caregivers express their preferences and are there any mechanisms that make providers liable/encouraged to taken them into account? (e.g., financial incentives, legal obligations)	Yes, informal caregivers can express their preferences and there are mechanisms that make providers liable/encouraged to take them into account	Yes, informal caregivers can express their preferences, but there are no mechanisms that make providers liable/encouraged to take them into account	No, informal caregivers can't express their preferences and there are no mechanisms that make providers liable/encouraged to take them into account

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
7. Telemedicine and e-Health	7.1 Access to electronic patient record	Is there an access to electronic patient record in all settings?	Yes, there is an access to electronic patient record in all settings	There is an access to electronic patient record, but only in some settings	No, there is no access to electronic patient record in almost any setting
	7.2 The use of medical technologies, e-Health to monitor patients' health	Are medical technologies used to monitor patients' health?	Yes, it is performed with nearly all patients	It is rarely performed, only in specific cases	No, it is almost never performed
	7.3 Availability of telephone consultations	Are telephone consultations available to patients and/or informal caregivers? (refers to the medical consultation)	Yes, telephone consultations are available	Telephone consultations are rarely available, only in specific cases	No, telephone consultations are unavailable
	7.4 Availability of video consultations	Are video consultations available to patients and/or informal caregivers?	Yes, video consultations are available	Video consultations are rarely available, only in specific cases	No, video consultations are unavailable
	7.5 Access to tele-information	Do patients/informal caregivers have access to tele-information?	Yes, nearly all patients/informal caregivers have access to tele-information	Patients/informal caregivers rarely have access to tele-information	No, nearly all patients/informal caregivers do not have access to tele-information
8. Social care	8.1 Involvement of social care workers to look after the patient	Are social care workers actively involved to look after the patient at home?	Yes, social care workers actively look after the patient at home in nearly all patients' cases	Social care workers rarely actively look after the patient at home	No, social care workers are almost never actively looking after the patient at home
	8.2 Social care worker involvement in discharge process (in hospital)	Are social care workers involved in discharge process? (In collaboration with health care worker)	Yes, social care workers are involved in nearly all discharge processes	Social care workers are rarely involved in discharge process	No, social care workers are almost never involved in any discharge process
	8.3 Social care worker prepares patient & informal caregiver	Does social care worker prepare patient & informal caregiver before the discharge? (In collaboration with health care worker)	Yes, social care worker prepares nearly all patients and informal caregivers before the discharge	Social care worker rarely prepares patients and informal caregivers, only in specific cases	No, social care worker almost never prepares patients and informal caregivers

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
	8.4 Social care worker prepares receiving setting	Does social care worker prepare receiving setting before the discharge? (In collaboration with health care worker)	Yes, social care worker prepares receiving setting for nearly all patients and informal caregivers	Social care worker rarely prepares receiving setting, only in specific cases	No, social care worker almost never prepares receiving setting
	8.5 Social care worker competencies and responsibilities	Do social care worker competencies and responsibilities allow for proactive engagement in care coordination?	Yes, social care workers have a lot of competencies and responsibilities that allow for proactive engagement in coordination	Social care workers have limited competencies and responsibilities	No, social care worker competencies and responsibilities are very limited and do not allow in proactive engagement in coordination
Financial aspects					
9. Primary care	9.1 Appropriateness of reimbursement level - sufficient reimbursement level to cover the costs?	Is the reimbursement level sufficient to cover the incurred costs?	Yes, the reimbursement level is sufficient to cover the costs incurred	The reimbursement level is lower than costs incurred but it does not have an impact on quality of care/services provided	No, the reimbursement level is lower than costs incurred, and it has an impact on quality of care/ services provided
	9.2 Presence of incentives that stimulate cost-efficient care	Are there any incentives (e.g. Pay for Performance, Pay for Quality etc.) in place to stimulate cost-efficient care?	Yes, there are incentives in place	There are incentives, but only in some settings	No, there are no incentives in place
	9.3 Sufficient renumeration level of the staff	Is the renumeration for staff sufficient (according to the staff) to ensure the retention of staff?	Yes, the renumeration is sufficient	The renumeration is insufficient, but it has no impact on staff retention	No, the renumeration is insufficient and it has an impact on staff retention
	9.4 Compensation for care coordinator/coordination	Is there a compensation for care coordinator/coordination?	Yes, there is a compensation for care coordinator/coordination	There is a compensation for care coordination/coordination, but it is very low	No, there is no compensation for care coordinator/ coordination

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
	9.5 Reimbursement for transitional care	Is there a reimbursement for transitional care?	Yes, there is a reimbursement for transitional care	There is a reimbursement for transitional care, but it is very low	No, there is no reimbursement for transitional care
	9.6 Out-of-pocket payments	Are out-of-pocket payments level low and do not affect patients & informal caregiver decision/possibility to access primary care?	Yes, the out-of-pocket payments are low and do not affect patients and informal caregiver decision/possibility to access primary care	Out-of-pocket payments are high but do not affect patients and informal caregiver decision/possibility to access primary care	No, the out-of-pocket payments are high and affect patients and informal caregiver decision/possibility to access primary care
10. Hospital	10.1 Appropriateness of reimbursement level - sufficient reimbursement level to cover the costs?	Is the reimbursement level sufficient to cover the incurred costs?	Yes, the reimbursement level is sufficient to cover the costs incurred	The reimbursement level is lower than costs incurred but it does not have an impact on quality of care/services provided	No, the reimbursement level is lower than costs incurred, and it has an impact on quality of care/services provided
	10.2 Presence of incentives that stimulate cost-efficient care	Are there any incentives (e.g. Pay for Performance, Pay for Quality etc.) in place to stimulate cost-efficient care?	Yes, there are incentives in place	There are incentives, but only in some settings	No, there are no incentives in place
	10.3 Sufficient renumeration level of the staff	Is the renumeration for staff sufficient (according to the staff) to ensure the retention of staff?	Yes, the renumeration is sufficient	The renumeration is insufficient, but it has no impact on staff retention	No, the renumeration is insufficient and it has an impact on staff retention
	10.4 Compensation for care coordinator/coordination	Is there a compensation for care coordinator/coordination?	Yes, there is a compensation for care coordinator/coordination	There is a compensation for care coordination/coordination, but it is very low	No, there is no compensation for care coordinator/coordination

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
	10.5 Reimbursement for transitional care	Is there a reimbursement for transitional care?	Yes, there is a reimbursement for transitional care	There is a reimbursement for transitional care, but it is very low	No, there is no reimbursement for transitional care
	10.6 Out-of-pocket payments	Are out-of-pocket payments level low and do not affect patients & informal caregiver decision/possibility to access hospital?	Yes, the out-of-pocket payments are low and do not affect patients and informal caregiver decision/possibility to access hospital	Out-of-pocket payments are high but do not affect patients and informal caregiver decision/possibility to access hospital	No, the out-of-pocket payments are high and affect patients and informal caregiver decision/possibility to access hospital
11. Long-term care	11.1 Appropriateness of reimbursement level - sufficient reimbursement level to cover the costs?	Is the reimbursement level sufficient to cover the incurred costs?	Yes, the reimbursement level is sufficient to cover the costs incurred	The reimbursement level is lower than costs incurred but it does not have an impact on quality of care/services provided	No, the reimbursement level is lower than costs incurred, and it has an impact on quality of care/services provided
	11.2 Presence of incentives that stimulate cost-efficient care	Are there any incentives (e.g. Pay for Performance, Pay for Quality etc.) in place to stimulate cost-efficient care?	Yes, there are incentives in place	There are incentives, but only in some settings	No, there are no incentives in place
	11.3 Sufficient renumeration level of the staff	Is the renumeration for staff sufficient (according to the staff) to ensure the retention of staff?	Yes, the renumeration is sufficient	The renumeration is insufficient, but it has no impact on staff retention	No, the renumeration is insufficient and it has an impact on staff retention
	11.4 Compensation for care coordinator/coordination	Is there a compensation for care coordinator/coordination?	Yes, there is a compensation for care coordinator/coordination	There is a compensation for care coordination/coordination, but it is very low	No, there is no compensation for care coordinator/coordination
	11.5 Reimbursement for transitional care	Is there a reimbursement for transitional care?	Yes, there is a reimbursement for transitional care	There is a reimbursement for transitional care, but it is very low	No, there is no reimbursement for transitional care

Table 6.2. Continued.

Category/sub-category	Indicator	Explanation	Score 3	Score 2	Score 1
	11.6 Out-of-pocket payments	Are out-of-pocket payments level low and do not affect patients & c informal caregiver decision/possibility to access LTC?	Yes, the out-of-pocket payments are low and do not affect patients and informal caregiver decision/possibility to access LTC	Out-of-pocket payments are high but do not affect patients and informal caregiver decision/possibility to access LTC	No, the out-of-pocket payments are high and affect patients and informal caregiver decision/possibility to access LTC
	11.7 Financial contribution by social care institutions to cover LTC costs	Do social care institutions contribute to cover LTC costs for patients & informal caregiver that have financial problems to pay for LTC?	Yes, social care institutions help to cover LTC costs for nearly all patients and informal caregivers that need it	Social care institutions rarely cover LTC costs for patients and informal caregivers	No, social care institutions almost never cover LTC costs for patients and informal caregivers

*Some of the items in the TCAT-LTC tool might appear to be conceptual and aspirational. Therefore, they will need to be operationalized by the evaluators of a given LTC system considering the specificities of that LTC system and its context. Please see the changes in Table 2.

As confirmed by the experts' validation, the TCAT-LTC is a helpful tool that separates the long-term care system into manageable parts by identifying organizational and financial aspects that are relevant to care transition. Assessments using the tool can be carried out at the national and international level to help to monitor, evaluate, and compare performance of the long-term care systems in relation to care transition within and across countries. Moreover, the TCAT-LTC aims to inform decision-makers and thus, improve the quality of the decisions undertaken by different stakeholders regarding care transition. Applying the TCAT-LTC enables us to shed light on high-performing countries when it comes to care transition in the long-term care systems. As a result, countries may use this knowledge to learn from pioneers by adapting strategies and solutions that proved to be effective.

Evaluation of long-term care (LTC) systems is very important but understudied subject. Monitoring the performance of long-term care systems is necessary for the identification of current issues and for informing evidence-based policy-making. Reforms cannot take place without a sound understanding of how long-term care system is performing. There are a few existing frameworks for LTC system performance assessment that originated in different parts of the world (Health Quality Ontario, 2015; Kim & Jeon, 2020; Mot & Bíró, 2012; Reinhard et al., 2014). Their common goal is to better understand the LTC system. One of the tools measures Long-Term Services and Supports across five dimensions, including effective transitions. Nonetheless, this tool uses an outcome approach to performance instead of structure and process (Reinhard et al., 2014). Such approach has certain limitations and should be used with discrimination as suggested by Donabedian (1966).

We acknowledge that the completion of this tool might have the unintentional effect of diverting resources. Nevertheless, the completion of the tool by staff that is familiar with long-term care systems and transitional of older adults should not take longer than 2-3 hours. Performing assessment with the TCAT-LTC is essential step in promoting accountability and improving the performance of the system.

Limitations and strengths of the study

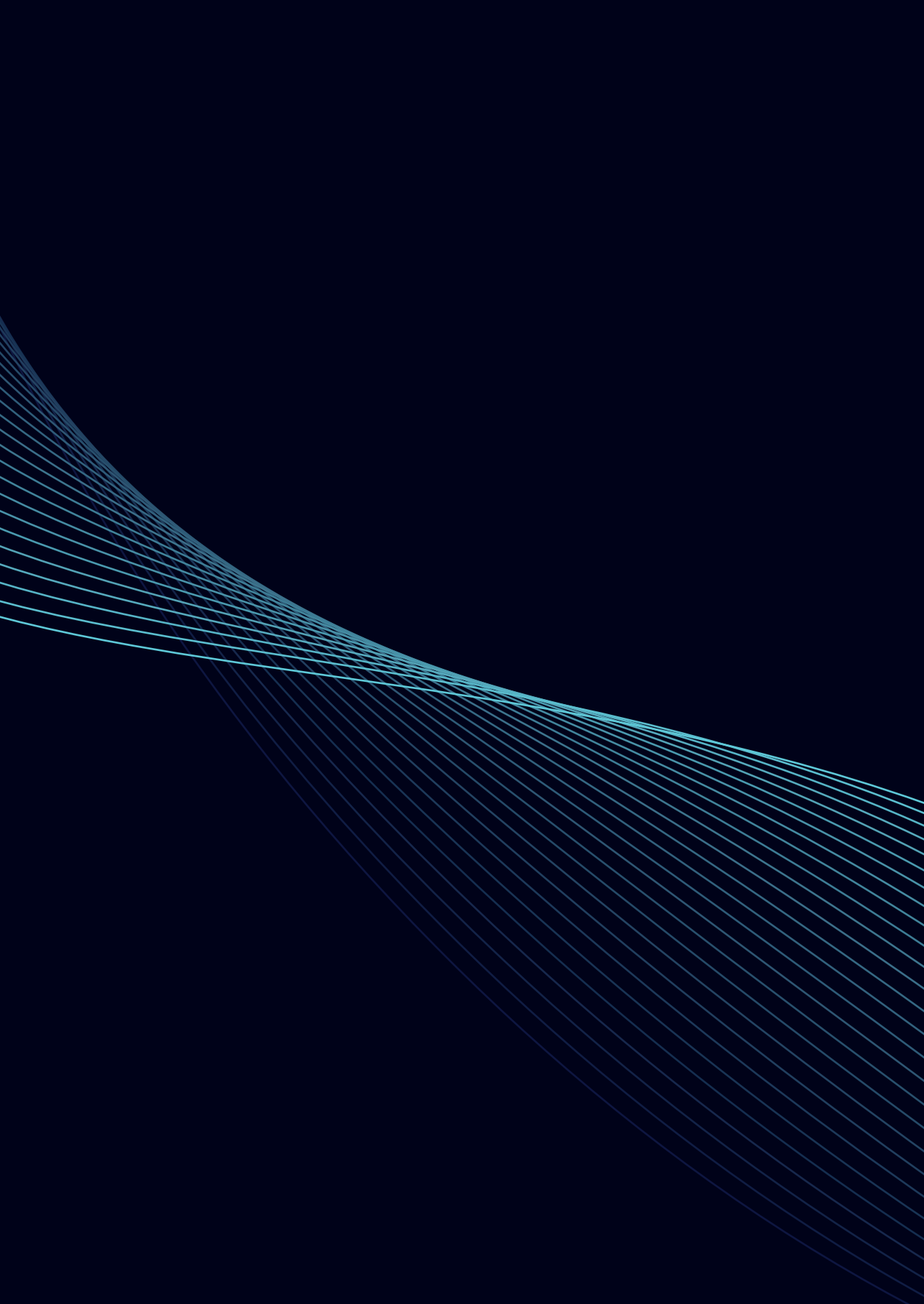
Although we performed an exhaustive process of tool development, this study has some limitations. First, we are aware that the literature review that we performed may not have identified all relevant literature due to heterogeneity of terminology for transitional care. Moreover, qualitative interviews were carried out by two interviewers and in three different languages. Therefore, there may have been some discrepancies between the interviewers and between the languages in which the interviews were carried out. Furthermore, for the theoretical analysis, we did

not use target population opinion to theoretically refine the items and to analyze the tools' content validity. Instead, we only used expert judges. Future studies are recommended to involve target population groups as it enables to identify and eliminate potential problems in the scale (to test the language and level of comprehension). Another limitation in our study is the absence of direct input from patients and their informal caregivers. We acknowledge that involving their opinions and perspectives is important in future research and policymaking. We are also aware that some of the items in the tool might not be specific enough, and this may cause an ambiguous understanding of the items. Few non-specific items in the tool are due to the variability and complexity of long-term care systems that could be assessed with this tool. Given, there is still a need for thorough validation of the tool. Future validation might further refine items and enable us to provide more detailed and clear explanations on the scoring system. Tools' pilot test is the next step. We plan to test the TCAT-LTC in Germany, the Netherlands and Poland.

This study had some strengths as well. Item generation process is one of the most important steps in the scale development process. For this purpose, we used a combination of both deductive and inductive approaches for item generation to strengthen the validity of the tool. Twenty-five different experts in the field of long-term care and transitional care from three different countries – Germany, the Netherlands and Poland were involved at different stages in this study. This comprehensive approach helped us to ensure that key items are included in the tool.

6.5 CONCLUSION

In this chapter, we presented the development of the TCAT-LTC evaluation tool for assessing the performance of long-term care systems in relation to care transition. We also presented the instructions on the application of the TCAT-LTC. The TCAT-LTC is the first tool to assess the performance of long-term care systems in relation to care transition. Assessments using the TCAT-LTC can be carried out at the national and international level, which can help to monitor, evaluate, and compare the performance of the long-term care systems (in relation to care transition) within and across different countries. Performing assessment with the TCAT-LTC can be an important first step toward optimizing care transitions for older adults and their informal caregivers. This is particularly important due to aging population and thus, increased proportion of individuals with complex health and social care needs. Feedback on the application of the tool is welcomed as it will help us to further refine the TCAT-LTC.



CHAPTER 7

General discussion

7.1 INTRODUCTION

This dissertation contributes to our knowledge on care transitions of older adults in LTC systems. At present, suboptimal care transitions of older adults are common and often result in compromised patient safety, outcomes and rehospitalizations (Forster et al., 2003; Jasinarachchi et al., 2009; van Walraven et al., 2011;). Therefore, optimization of care transitions has become a global priority (WHO, 2016). As outlined in Chapter 1 of this dissertation, organizational and financial aspects might influence care transitions. Thus, the motivation of the dissertation is to obtain in-depth knowledge on these aspects. Understanding barriers and facilitators that influence care transitions in LTC systems is essential to develop tailored strategies and, thus, optimizing care transitions.

Specifically, this dissertation aims to identify which organizational and financial aspects affect care transitions and to inform the improvement of care transitions by identifying good practices as well as challenges that need to be addressed, in particular, in the LTC systems of Germany, the Netherlands and Poland. Moreover, this dissertation aims to develop an assessment tool for assessing the performance of LTC systems in relation to care transition. To achieve these aims, Chapter 2 and Chapter 3 have reviewed the existing evidence on key care provision and financial aspects that influence care transition of older adults in LTC systems. Chapter 4 has studied different policies encouraging informal care in European LTC systems and their influence on care transitions. Furthermore, in Chapter 5, in-depth interviews were conducted among key informants in Germany, the Netherlands and Poland to understand what kind of organizational and financial aspects affect care transition in LTC system in those countries. Based on the findings from the previous chapters, in Chapter 6, the development of an evaluation tool for assessing the performance of LTC systems in relation to care transition has been presented.

This dissertation enhances the understanding of organizational and financial aspects related to care transitions in LTC systems. The evidence generated in the dissertation chapters is an important starting point as it might help health care managers, providers, insurers and policymakers to develop strategies aiming at optimization of care transitions. Chapter 7 outlines and discusses key findings from the perspectives of policy and research.

7.2 SUMMARY AND DISCUSSION OF MAIN FINDINGS

To address the aim of this dissertation, five research questions have been formulated. The main findings are summarized and discussed below in relation to those questions with references to the dissertation chapters, where the findings are presented in detail.

Question 1 "What is current knowledge regarding care provision aspects affecting care transition in LTC systems?"

The results in Chapter 2 show that care provision aspects and especially organizational and financial aspects can influence care transitions. The preliminary review findings enabled us to systematize the knowledge regarding organizational and financial aspects influencing care transitions of older adults. As a result, a model of care provision aspects that affect care transition has been proposed. Rogers, Huddle and White (2000) argued that presenting concepts in the form of a model improves the understanding of the topic. This is particularly important since the study is the first to provide an overview of organizational and financial aspects that influence care transitions. In the model, organizational aspects include communication among involved professional groups, transfer of information and care responsibility of the patient, coordination of resources, training and education of staff, education and involvement of the patient and family, e-Health and social care. Financial aspects include provider payment mechanisms, rewards and penalties.

Organizational aspects and their influence on care transitions have also been widely acknowledged by other researchers worldwide (Coleman & Berenson, 2004; Coleman, 2003; Curran, Brenol & Vine,2020; Hillis et al., 2016; Kripalani et al., 2007). For instance, study by Curran, Brenol & Vine (2020) on care transitions of children with complex care needs found that availability of resources and adequate support are important factors and might affect the quality of care transitions. Another study on care transitions of children with complex needs carried out by Hillis et al.'s (2016) suggested a crucial role of care coordinators.

Besides that, financial aspects and their influence on the integration of care and care transitions are also debated by researchers (Glasziou et al., 2012; Stokes et al., 2018; Tsiachristas et al., 2013). For instance, Tsiachristas (2016) argued that financial incentives should be taken into consideration by policymakers as they might stimulate the integration of care. Nevertheless, the implementation of new payment mechanisms for integrated care that would target the entire population is rather uncommon (Stokes et al., 2018).

The findings also suggest that majority of publications included in this systematic review (213 publications, 93%) refer to organizational aspects and particularly the coordination of resources, followed by transfer of information. On the other hand, some other themes, such as e-Health are less researched.

Moreover, we found in Chapter 2 that the number of studies on care provision aspects and specific organizational and financial aspects has been steadily increasing since 2005 with the majority of publications (165 publications; 72%) being published between 2011 and 2018. This might indicate an increased interest in the topic of care transitions. Besides that, the result also demonstrates that the topic of care transition is widely researched in the United States (95 publications, 41%), followed by the United Kingdom (20 publications) and Australia (18 publications). Similarly to results presented in this chapter, a review by Stokes et al.'s (2018) found that the highest number of articles describing different payments aiming to improve integrated care was also conducted in the United States and the United Kingdom. On the other hand, in some regions, the topic is underresearched, e.g., Africa and South America.

Question 2 "What are the financial aspects that affect care transition of older adults in LTC systems, and what is their influence on care coordination?"

The findings in Chapter 3 indicate that financial aspects, particularly financial incentives, might play an important role in the care transitions of older adults in LTC systems. Specifically, financial incentives were found to either promote or hamper care transitions. The results indicate that three types of financial incentives are relevant for care transition and care coordination: reimbursement mechanism, reward, and penalty. Many researchers worldwide seem to agree that financial incentives might affect not only the nature but also the quality of services provided, as explained in more detail in Chapter 3.

Other researchers also investigate the relationship between financial incentives and care coordination (Busse & Mays, 2008; Glasziou et al., 2012; Stokes et al., 2018; Tsiachristas et al., 2013). For example, Tsichristas (2016) debated that financial incentives can affect the delivery of social and care services, improve their performance both in the short and long term and even improve care coordination. Moreover, they are argued to motivate or reinforce behavior change of different stakeholders, e.g. users or providers (Busse & Mays, 2008). All these assumptions are based on economic theories, including microeconomic theory (Arrow, 1963), the theory of principal-agent behavior (Jensen & Mechling, 1976), and behavioral economics (Kahneman & Tversky, 1979). For instance, according to the theory

of principal-agent behavior, care providers might not always act in patients' best interests. Jensen & Mechling (1976) argued that in an agency relationship, both parties want to maximize their utility and that to limit divergencies between their interests, appropriate incentives should be applied. On the other hand, if inappropriately designed, they might lead to market failure, inefficiencies, and distributional issues (equity). For instance, fee-for-service is an activity-based payment method that incentives the provision of more services since the payment is dependent on quantity and not quality of care. Such payment methods do not encourage coordination across providers and do not incentivize the provision of high-quality care to patients with chronic diseases (Tsiachristas, 2016). Therefore, alternative payment methods that encourage collaboration between providers, e.g. pay-for-coordination, might be more favored for older adults and patients with chronic diseases (Struckmann et al., 2017).

Further, the results in Chapter 3 suggest also that financial incentives in primary care settings were of particular interest to the researchers as reflected by the highest number of publications on financial incentives in primary care. As stated by the researchers, primary care plays a significant role in coordinating care. It is argued that primary care physicians are not only patients' first point of contact but also often coordinate services delivered by other providers (Starfield, Shi & Macinko, 2005; Starfield, 1992; WHO, 2016). In fact, primary care has a leading role in optimizing care transitions as it aims to prevent unnecessary or inappropriate care transitions (WHO, 2016). Primary care plays an important role not only in optimizing care transitions for patients at home but also those in residential aged care facilities, as explained in more detail in Chapter 3. Given the reasons above, rewarding primary care doctors for their efforts in coordinating care is becoming increasingly common, as also reflected in the results.

In addition, most of the publications included in the study measured the impact or influence of reported financial incentives on predetermined indicators. However, due to the heterogeneity of the studies, financial incentives, settings and indicators, it is impossible to draw firm conclusions on their impact on care coordination and care transition. Moreover, it is questionable whether financial incentives that improve care coordination and care transition in one country would be as effective in another context (Struckmann et al., 2017). It is important to emphasize that the measurement of outcomes in LTC is challenging, as discussed in Chapter 3.

Question 3 "What are the different policies encouraging informal care in European LTC systems and what is their influence on care transitions?"

The results in Chapter 4 indicate that the are many arguments in favor of encouraging the provision of informal care in LTC systems. These arguments relate, but are not limited, to cost containment, positive impact on caregivers, and preferences of older adults to "age in place" as explained more in detail in Chapter 4 (Krabbe-Alkemade et al., 2020; Plöthner et al., 2019). For instance, a literature review of 59 studies found that people with moderate needs prefer to receive LTC in their known environment (Lehnert et al., 2019). Similarly, findings of the study conducted by Kasper, Wolff and Skehan (2019) using nationally representative data on persons aged 65 and over indicated that majority of respondents prefer to receive LTC at home provided either formally or informally. Considering the individual preferences of those in need of LTC care is crucial for the delivery of person-centered care (Morgan & Yoder, 2012).

On the other hand, findings indicate that there are also many arguments against encouraging the provision of informal care in LTC systems. These arguments include, among others, negative effects on caregivers in terms of worsening physical and mental health (Kaschowitz & Brandt, 2017; Bevans & Sternberg, 2012). Moreover, the study suggests that opportunity costs associated with the provision of informal care and lack of competencies of the caregivers might also pose a challenge. For instance, Given, Sherwood & Given (2008) indicated that informal caregivers often lack qualifications or training, and this might impact their competencies to provide care for older adults with complex conditions.

Findings in Chapter 4 suggest that there are various strategies supporting informal caregivers. Providing support to informal caregivers is essential not only to remediate the negative effects of caregiving but also to improve quality of care provided and to optimize care transitions (Sokas et al., 2021; Allen et al., 2022). We classified strategies supporting informal caregivers into three areas: carer compensation and recognition, labor market policy, and carers' physical and mental wellbeing. According to Spasova et al.'s (2018) strategies should target labor market policy, social rights of informal caregivers, training, upskilling and recognition of skills. Further, as observed in the study, some countries in Europe seem to have more developed structures for supporting informal caregivers than others. These countries included, among others, Sweden, Denmark, and the Netherlands. Unsurprisingly, those countries are also one of the highest spenders on LTC in Europe (OECD, 2021). Home and community-based services are the most developed in those countries (Spasova et al., 2018).

Moreover, findings in Chapter 4 suggest that supporting informal caregivers is also essential in order to optimize care transitions. This is particularly reflected in the

number of studies that emphasize the importance of supporting, involving and training informal caregivers (Hoffman et al., 2019; Sokas et al., 2021; Tomlinson et al., 2020). A more detailed description of these studies can be found in Chapter 4.

Question 4 "What are the organizational and financial aspects that affect care transitions in the LTC systems in Germany, the Netherlands and Poland?".

The analysis of in-depth semi-structured interviews with key country informants from Germany, the Netherlands and Poland in Chapter 5 demonstrated that, at present, care transitions in these countries are suboptimal. The fact that even the Dutch LTC system fails to deliver optimal care transitions to older adults is particularly intriguing, given that the country has one of the highest LTC expenditures in Europe (OECD, 2021). Moreover, in the Netherlands, there is high availability of LTC workers - 8 per 100 people aged 65 and over (OECD, 2021). In addition, the Dutch LTC system has one of the most developed home and community-based services in Europe (Spasova et al., 2018). On the contrary, the Polish LTC system is ill-equipped regarding staff, facilities, and beds. At present, infrastructure is inadequate to address the LTC needs of the older population (OECD, 2021; Szweda-Lewandowska, 2022; Szweda-Lewandowska, 2015). More detailed information on German, Dutch and Polish LTC systems can be found in Chapters 1 and 5.

Findings in Chapter 5 indicate that there are some common organizational challenges/problems experienced by all three countries. These challenges include problems with communication, transfer of information and coordination of resources. For instance, nearly all country informants agreed that good transfer of information is essential for optimal care transitions and that there is still room for improvement. Problems with the transfer of information in German, Dutch and Polish LTC systems are also acknowledged in the literature and are described in Chapter 5 (Daliri et al., 2019; Möller and Makoski, 2015; Poldervaart et al., 2019; Rzecznik Praw Pacjenta, 2022). Daliri et al. (2019), in their qualitative study, carried out in the Netherlands, found that insufficient information transfer between the providers is one of the problems during the transition from hospital to home. According to some of the participants, the availability of electronic health records could potentially improve communication and transfer of information between the providers. At the same time, key country informants acknowledge challenges that could limit their adoption. Also, the literature pinpoints various challenges related to the adoption of electronic health records, as explained in more detail in Chapter 5. Implementation barriers include, among others, security and privacy issues, documentation standards, interoperability, and political structure (Keshta & Odeh,

2021; Pohlmann et al., 2020).

Further, the results in Chapter 5 suggest that among financial challenges particularly, reimbursement plays a crucial role when it comes to care transitions in Germany, the Netherlands and Poland. Nevertheless, there are also some key differences between the factors affecting care transitions in those countries. These differences are not surprising given the variations in the provision and financing of care. Ariaans, Linden and Wendt (2021) argued that LTC systems in Germany, the Netherlands and Poland belong to different typologies. According to her study, Germany, together with Finland, belong to private supply systems characterized by medium public LTC expenditure, medium to high supply, and low access restrictions with no means-testing (Ariaans, Linden & Wendt, 2021). However, the Netherlands and other countries such as Belgium, Switzerland and Luxembourg belong to the need-based supply system. This LTC system type is characterized by medium public expenditure on LTC system, high supply and restricted access connected to a high level of means-testing (Ariaans, Linden & Wendt, 2021). The Polish LTC system was classified as the residual public system together with the Czech and Latvian systems. LTC systems in those countries have one of the lowest overall expenditure and number of beds and are characterized by low supply and access barriers, given the lack of means-testing (Ariaans, Linden & Wendt, 2021).

Further, the results of this study suggest that regulative aspects, previously not considered in other studies and frameworks, might also affect care transition and thus, should be taken into consideration, as explained in Chapter 5.

Question 5 "How to assess the performance of LTC systems in relation to care transition?"

As outlined in Chapter 6, the Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC) has been developed in three steps. These steps were according to the guidelines on scale development proposed by DeVellis (2003). The first step involved the development of a conceptual model that was informed by Donabedian's three-components approach and systematic literature review presented in Chapters 2 and 3. Donabedian (1966) in his work presented three different approaches to assessment. Those approaches focus on the outcome, the structure, and the process and are described in more detail in Chapter 6.

The second step involved item pool generation with two phases. Both deductive (systematic literature review) and deductive-inductive methods (semi-structured in-depth interviews with experts in LTC) were used to generate the item pool. The

full results of the systematic literature review can be found in Chapters 2 and 3, while the detailed findings from the qualitative interviews are presented in Chapter 5. Combining the results from deductive and inductive methods is a recommended strategy for the creation of new measures (DeVellis, 2003). In addition, Morgado et al.'s (2017) argued that item generation might be one of the most important steps of the scale development process, and therefore, a combination of both methods should be applied. After the preliminary item pool has been created, the relevance and clarity of each item have been discussed among research team members during multiple meetings. The third step was focused on preliminary validation of the tool.

The preliminary validation was performed in two phases. The first phase included meetings of the research team members to analyze and refine each category and item included in the tool. After each meeting, adjustments to the tool have been made by unanimous decision of the team members. The final version of the tool was accepted after the fourth meeting. Subsequently, the second phase involved the validation of the tool by five experts. Hardesty and Bearden (2004) argued that involving experts to analyze the item pool is crucial. Experts' feedback was used to further refine the item pool. Then, the research team met again to analyze the feedback from experts, and the final item pool was created following the sum score decision rule. DeVellis (2003) indicated that the sum score decision rule should be used by the researchers to determine whether an item should be included.

Ultimately, TCAT-LTC consists of 63 items divided into two themes, namely, organizational and financial aspects. Organizational aspects are divided into eight categories, and there are three categories regarding financial aspects. Organizational aspects include categories: communication, transfer of information, availability and coordination of resources, training and education of staff, education/support of the patient/informal caregiver, involvement of the patient/informal caregiver, telemedicine and e-Health, and social care. Financial aspects include the following categories: primary care, hospital, LTC. Each question/item can be graded and the total score can be calculated. The score might indicate the performance of a country's LTC system in relation to care transition.

7.3 METHODOLOGICAL REFLECTIONS

It is important to acknowledge the novelty of the studies included in this dissertation. The topic of organizational and financial aspects affecting care transitions is still under-researched. Therefore, this dissertation is the first attempt to synthesize knowledge on aspects that affect care transitions in LTC systems. This particularly

holds for Poland, where studies presented in this dissertation are first ever to study what affects the care transitions of older adults.

At the same time, this dissertation has certain limitations that should be mentioned. First, one of the shortcomings of studies included in this dissertation is the lack of inclusion of patients and informal caregivers. This is particularly a limitation of qualitative semi-structured interviews presented in Chapter 5, where only providers and payers/insurers were included. A systematic literature review by Greenhalgh et al.'s (2019) found that many frameworks consider patient and public involvement in research as crucial. Therefore, we argue that patients' and caregivers' voices should be taken into consideration not only in future research but also in future policymaking. Patients and their caregivers are important sources of information as they hold a lived-experience perspective. This is especially important when the researchers aim to improve the relevance of their research (Greenhalgh et al., 2019).

Second, only qualitative methods were applied in this dissertation. It is partially attributed to the novelty, the nature of the topic studied, and limited access to numerical data. Qualitative studies are especially useful for understanding reasons for observed patterns on topics that are not well understood. As mentioned in the previous chapters, the topic of organizational and financial aspects affecting care transitions is under-researched, and therefore, qualitative methods seemed to be the most feasible to gain in-depth insights. Nonetheless, future studies should focus on deploying quantitative and mixed methods.

7.4 RECOMMENDATIONS FOR POLICY AND FUTURE RESEARCH

As explored in this dissertation in Chapter 2 and 3, there are various organizational and financial aspects that might affect care transitions in LTC systems. This dissertation provides policymakers with important information about the aspects that should be taken into consideration in future policymaking. Addressing organizational and financial aspects is crucial to change the way in which care is provided, to optimize care transitions and thus, to improve patient safety and quality of care. Moreover, the results of this dissertation are of high relevance for other researchers that want to carry out research on the topic of care transition. Findings provide the base for future studies in this area. Researchers might use the results of this dissertation to develop qualitative and quantitative studies to broaden knowledge on organizational and financial aspects in their countries.

Future research should consider a detailed analysis of a broader range of service aspects covering both provider and patient aspects of care.

As outlined in Chapter 3, financial incentives, including reimbursement mechanisms, rewards and penalties, play an important role in care transitions and might stimulate care coordination. It is important not only to analyze how current financial incentives affect care transitions but also to implement new financial mechanisms that would promote care coordination. However, it is essential to continuously evaluate the impact of new policies to inform future policies.

As explored in Chapter 5, care transitions of older adults in the German, Dutch and Polish LTC systems are suboptimal. Among organizational aspects, communication, transfer of information and coordination of resources are argued to have immense importance in care transitions and need urgent attention. Thus, there is a need for further in-depth analysis of what works and what the challenges are regarding these aspects in those countries. Policymakers should focus on developing solutions that would improve communications between different stakeholders in the LTC system. In addition, attention should be paid to issues in the transfer of information. It is apparent that the current transfer of information is not optimal and therefore, policies that would promote information exchange among those involved in care transitions are required. Besides, there is a need to address the coordination of resources that proved to affect care transitions in all three countries. Financial aspects, particularly reimbursement, require attention. Policymakers should look closer at the role of out-of-pocket (OOP) payments in LTC systems, as it became evident in this dissertation that OOP payments influence the care transitions of older adults. Therefore, there is a need to improve access to LTC by reducing the level of OOP payment. Findings indicate that OOP payments often limit access to LTC services. Thus, future research should focus on studying the magnitude of this phenomenon in order to bring it to the attention of policymakers.

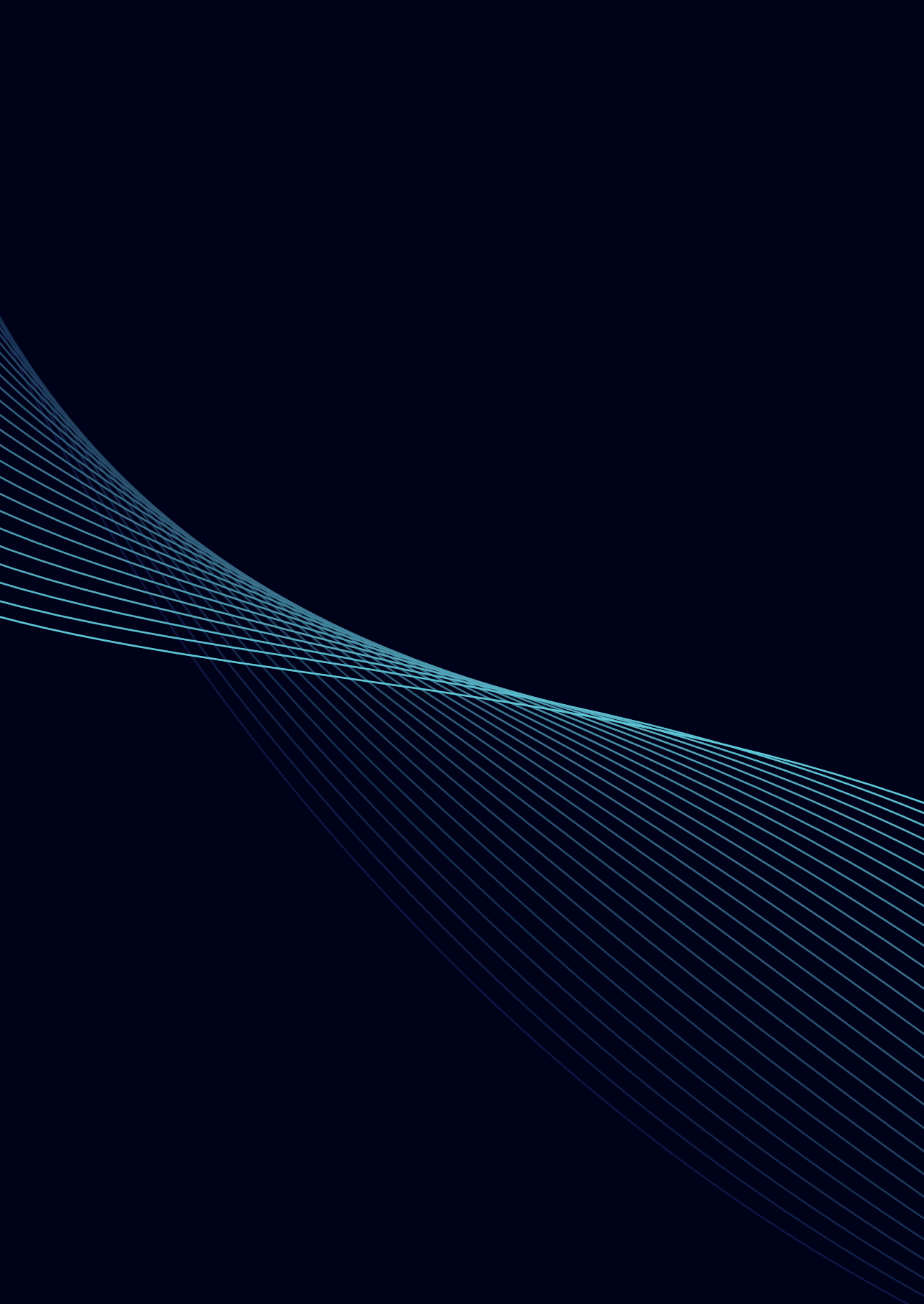
The assessment tool presented in Chapter 6 is of high relevance not only to policymakers but also to researchers. Specifically, Transitional Care Assessment Tool in Long-Term Care is the first tool for assessing the performance of LTC systems in relation to care transition. It might help policymakers to assess the performance and identify current issues in the LTC system. Monitoring the performance of LTC systems is an important step in evidence-based policymaking as it provides information on areas that need special attention. Besides, it is crucial to understand the performance of the LTC system before reforms take place (Mot & Bíró, 2012; Sunwood et al., 2016). Researchers might also benefit from this assessment tool as it provides them with guidance on organizational and financial aspects that were

considered important for the care transitions of older adults. This knowledge might serve as an important source of information for more detailed studies on selected aspects. Moreover, they can build on the assessment tool and further refine it.

7.5 FINAL CONCLUSION

This dissertation identified organizational and financial aspects that affect care transitions of older adults in LTC systems. Understanding which organizational and financial aspects influence care transitions in LTC systems is crucial for the development of tailored strategies and for the optimization of care transitions. As evidenced in this dissertation, organizational aspects that affect care transition include: coordination of resources, communication among involved professional groups, transfer of information and care responsibility of the patient, training and education of staff, e-health, education and involvement of the patient and family, and social care. Financial aspects include provider payment mechanisms, rewards and penalties. Further, findings of this dissertation suggest that, at present, care transitions of older adults in Germany, the Netherlands and Poland are suboptimal and that a lot has to be done if these countries are to deliver safe and seamless care transitions. This dissertation identified current challenges and opportunities for improvement in German, Dutch and Polish LTC systems from the perspectives of various providers and payers/insurers. Findings indicate that key country informants from Germany, the Netherlands and Poland consider organizational challenges such as communication, transfer of information, and coordination of resources to have an immense impact on care transitions. In their view, these challenges need urgent attention. Among financial challenges particularly, reimbursement plays a crucial role when it comes to care transitions in the three countries.

In this dissertation, we also present an assessment tool for assessing the performance of LTC systems in relation to care transition. The TCAT-LTC tool is developed in three steps based on guidelines on scale development proposed by DeVellis. The assessment tool is an important step in promoting accountability and improving the performance of the LTC system.



References

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1. Aase, K., Laugaland, K. A., Dyrstad, D. N., & Storm, M. (2013). Quality and safety in transitional care of the elderly: the study protocol of a case study research design (phase 1). *BMJ Open*, *3*(8), e003506. https://doi.org/10.1136/bmjopen-2013-003506
2. Alders, P., & Schut, F. (2018). Trends in ageing and ageing-in-place and the future market for institutional care: scenarios and policy implications. *Health Economics, Policy and Law*, *14*(1), 82-100. doi: 10.1017/s1744133118000129
3. Allen, J., Hutchinson, A. M., Brown, R., & Livingston, P. M. (2020). Evaluation of the TRANSITION tool to improve communication during older patients' care transitions: Healthcare practitioners' perspectives. *Journal of Clinical Nursing*, *29*(13-14), 2275-2284. https://doi.org/10.1111/jocn.15236
4. Allen, J., Lobchuk, M., Livingston, P. M., Layton, N., & Hutchinson, A. M. (2022). Informal carers' support needs, facilitators and barriers in the transitional care of older adults: A qualitative study. *Health Expectations*, *25*(6), 2876–2892. https://doi.org/10.1111/hex.13596.
5. Amelung, V. E., Stein, V., Goodwin, N., Balicer, R., Nolte, E., & Suter, E. (2017). *Handbook Integrated Care*. Springer.
6. Anell, A., & Glenngård, A. H. (2014). The use of outcome and process indicators to incentivize integrated care for frail older people: a case study of primary care services in Sweden. *International Journal of Integrated Care*, *14*, e038. https://doi.org/10.5334/ijic.1680
7. Arbaje, A. I., Newcomer, A. R., Maynor, K. A., Duhaney, R. L., Eubank, K. J., & Carrese, J. A. (2014). Excellence in Transitional Care of Older Adults and Pay-for-Performance: Perspectives of Health Care Professionals. *Joint Commission Journal on Quality and Patient Safety*, *40*(12), 550–551. https://doi.org/10.1016/s1553-7250(14)40071-0
8. Ariaans, M., Linden, P., & Wendt, C. (2021). Worlds of long-term care: A typology of OECD countries. *Health Policy (Amsterdam, Netherlands)*, *125*(5), 609–617. https://doi.org/10.1016/j.healthpol.2021.02.009
9. Armitage, G. D., Suter, E., Oelke, N. D., & Adair, C. E. (2009). Health Systems Integration: State of the evidence. *International Journal of Integrated Care*, *9*(2). https://doi.org/10.5334/ijic.316
10. Arrow, K. (1963). Uncertainty and The Welfare Economics of Medical Care. *The American Economic Review,* 63(5), 941–73
11. Barker, I., Steventon, A., & Deeny, S. R. (2017). Association between continuity of care in general practice and hospital admissions for Ambulatory Care Sensitive Conditions: Cross sectional study of routinely collected, person level data. *BMJ*, 356. https://doi.org/10.1136/bmj.j84
12. Baumann, M., Evans, S., Perkins, M., Curtis, L., Netten, A., Fernandez, J. L., & Huxley, P. (2007). Organisation and features of hospital, intermediate care and social services in English sites with low rates of delayed discharge. *Health & Social Care in the Community*, *15*(4), 295–305. https://doi.org/10.1111/j.1365-2524.2007.00697.x
13. Baxter, R., Shannon, R., Murray, J., O'Hara, J. K., Sheard, L., Cracknell, A., & Lawton, R. (2020). Delivering exceptionally safe transitions of care to older people: a qualitative study of multidisciplinary staff perspectives. *BMC Health Services Research*, *20*(1), 780. https://doi.org/10.1186/s12913-020-05641-4

14. Bevans, M., & Sternberg, E. M. (2012). Caregiving burden, stress, and health effects among family caregivers of adult cancer patients. *JAMA*, *307*(4), 398–403. https://doi.org/10.1001/jama.2012.29
15. Birkmeyer, J. D., Gust, C., Baser, O., Dimick, J. B., Sutherland, J. M., & Skinner, J. S. (2010). Medicare payments for common inpatient procedures: implications for episode-based payment bundling. *Health Services Research*, *45*(6 Pt 1), 1783–1795. https://doi.org/10.1111/j.1475-6773.2010.01150.x
16. Bland, M., Stevens, A., Nellis, P., Mueggenburg, K., Yau, T., & ChenJustin, C. (2021). Interprofessional education and transitions of care: a case-based educational pilot experience. *Journal of Interprofessional Care*, *35*(3), 482–486. https://doi.org/10.1080/13561820.2020.1769041
17. Błędowski, P., Bakalarczyk, R., Jurek, Ł., Kubicki, P., Łuczak, P., & Szweda-Lewandowska, Z. (2021). *Deinstytucjonalizacja opieki długoterminowej w Polsce - cele i wyzwania*. Koalicja na pomoc niesamodzielnym. Warszawa
18. Bom, J., Bakx, P., Schut, F., & van Doorslaer, E. (2018). The impact of informal caregiving for older adults on the health of various types of caregivers: a systematic review. *The Gerontologist*. *59*(5), e629-e642. doi: 10.1093/geront/gny137
19. Bonsang, E. (2009). Does informal care from children to their elderly parents substitute for formal care in Europe?. *Journal of Health Economics*, *28*(1), 143-154. doi: 10.1016/j.jhealeco.2008.09.002
20. Börsch-Supan, A. (2022). Survey of Health, Ageing and Retirement in Europe (SHARE) Wave 8. Release version: 8.0.0. SHARE-ERIC. Data set. DOI: 10.6103/SHARE.w8.800
21. Briggs, A. M., & Araujo de Carvalho, I. (2018). Actions required to implement integrated care for older people in the community using the World Health Organization's ICOPE approach: a global Delphi consensus study. *PLoS One*, *13*(10), e0205533.
22. Britton, M. C., Ouellet, G. M., Minges, K. E., Gawel, M., Hodshon, B., & Chaudhry, S. I. (2017). Care Transitions Between Hospitals and Skilled Nursing Facilities: Perspectives of Sending and Receiving Providers. *The Joint Commission Journal on Quality and Patient Safety*, *43*(11), 565-572. https://doi.org/10.1016/j.jcjq.2017.06.004
23. Broese van Groenou, M., & De Boer, A. (2016). Providing informal care in a changing society. *European Journal of Ageing, 13*(3), 271-279. http://dx.doi.org/10.1007/s10433-016-0370-7
24. Burke, R. E., Kripalani, S., Vasilevskis, E. E., & Schnipper, J. L. (2012). Moving beyond readmission penalties: Creating an ideal process to improve transitional care. *Journal of Hospital Medicine*, *8*(2), 102–109. https://doi.org/10.1002/jhm.1990
25. Burt, C.W., & McCaig, L.F. (2001). Trends in hospital emergency department utilization: United States, 1992-99. *Vital and Health Statistics 13, 150, 1-34.*
26. Busetto, L., Kiselev, J., Luijkx, K. G., Steinhagen-Thiessen, E., & Vrijhoef, H. J. M. (2017). Implementation of integrated geriatric care at a German hospital: a case study to understand when and why beneficial outcomes can be achieved. *BMC Health Services Research*, *17*(1), 1-14
27. Busse, R., & Mays, N. (2008). Paying for chronic disease care. In: Nolte, E., McKee, M. (eds.) Caring for people with chronic conditions: a health system perspective. Open University Press, Maidenhead, p. 195-221. https://researchonline.lshtm.ac.uk/id/eprint/6696
28. Cameron, A., Lart, R., Bostock, L., & Coomber, C. (2013). Factors that promote and hinder joint and

integrated working between Health and Social Care Services: A review of research literature. *Health & Social Care in the Community*, *22*(3), 225–233. https://doi.org/10.1111/hsc.12057

29. Carman, E. M., Fray, M., & Waterson, P. (2021). Facilitators and barriers of care transitions - Comparing the perspectives of hospital and community healthcare staff. *Applied Ergonomics*, *93*, 103339. https://doi.org/10.1016/j.apergo.2020.103339
30. Carnahan, J. L., Unroe, K. T., & Torke, A. M. (2016). Hospital Readmission Penalties: Coming Soon to a Nursing Home Near You!. *Journal of the American Geriatrics Society*, *64*(3), 614–618. https://doi.org/10.1111/jgs.14021
31. Chaix-Couturier, C., Durand-Zaleski, I., Jolly, D., & Durieux, P. (2000). Effects of financial incentives on medical practice: results from a systematic review of the literature and methodological issues. *International Journal for Quality in Health Care*, *12*(2), 133–142. https://doi.org/10.1093/intqhc/12.2.133
32. Chen, C. C., & Cheng, S. H. (2016). Does pay-for-performance benefit patients with multiple chronic conditions? Evidence from a universal coverage health care system. *Health Policy and Planning*, *31*(1), 83-90.
33. Chen, T. T., Oldenburg, B., & Hsueh, Y. S. (2021). Chronic care model in the diabetes pay-for-performance program in Taiwan: Benefits, challenges and future directions. *World Journal of Diabetes*, *12*(5), 578–589. https://doi.org/10.4239/wjd.v12.i5.578
34. Cheng, S. H., Lee, T. T., & Chen, C. C. (2012). A longitudinal examination of a pay-for-performance program for diabetes care: evidence from a natural experiment. *Medical Care*, 109-116.
35. Christensen, K., Doblhammer, G., Rau, R., & Vaupel, J. W. (2009). Ageing populations: The challenges ahead. The Lancet, 374(9696), 1196–1208. https://doi.org/10.1016/s0140-6736(09)61460-4
36. Codde, J., Frankel, J., Arendts, G., & Babich, P. (2010). Quantification of the proportion of transfers from residential aged care facilities to the emergency department that could be avoided through improved primary care services. *Australasian Journal on Ageing*, *29*(4), 167–171. https://doi.org/10.1111/j.1741-6612.2010.00496.x
37. Coleman E. A. (2003). Falling through the cracks: challenges and opportunities for improving transitional care for persons with continuous complex care needs. *Journal of the American Geriatrics Society*, *51*(4), 549–555. https://doi.org/10.1046/j.1532-5415.2003.51185.x
38. Coleman, E. A., & Berenson, R. A. (2004). Lost in transition: Challenges and opportunities for improving the quality of transitional care. *Annals of Internal Medicine*, *141*(7), 533–536. https://doi.org/10.7326/0003-4819-141-7-200410050-00009
39. Coleman, E. A., Boult, C., & American Geriatrics Society Health Care Systems Committee. (2003). Improving the quality of transitional care for persons with complex care needs. *Journal of the American Geriatrics Society*, *51*(4), 556–557. https://doi.org/10.1046/j.1532-5415.2003.51186.x
40. Coleman, E. A., Mahoney, E., & Parry, C. (2005). Assessing the quality of preparation for posthospital care from the patient's perspective: the care transitions measure. *Medical Care*, *43*(3), 246-255.
41. Coleman, E. A., Min, S. J., Chomiak, A., & Kramer, A. M. (2004). Posthospital care transitions: patterns, complications, and risk identification. *Health Services Research*, *39*(5), 1449–1465. https://doi.org/10.1111/j.1475-6773.2004.00298.x

42. Coleman, E. A., Parry, C., Chalmers, S., & Min, SJ. (2006). The Care Transitions Intervention Results of a Randomized Controlled Trial. *Archives of Internal Medicine*, *166*(17), 1822. https://doi.org/10.1001/archinte.166.17.1822
43. Coleman, E. A., Smith, J. D., Raha, D., & Min, S. J. (2005). Posthospital medication discrepancies: prevalence and contributing factors. *Archives of Internal Medicine*, *165*(16), 1842–1847. https://doi.org/10.1001/archinte.165.16.1842
44. Colombo, F., Llena-Nozal, A., Mercier, J., & Tjadens, F. (2011). *Help wanted? Providing and paying for long-term care*. OECD Publishing. www.oecd.org/health/longtermcare/helpwanted
45. Conrad, D. A., & Perry, L. (2009). Quality-based financial incentives in health care: can we improve quality by paying for it?. *Annual Review of Public Health*, *30*, 357-371.
46. Council of the European Union. (2014). *Adequate social protection for long-term care needs in an ageing society*. Brussels: Social Protection Committee.
47. Courtin, E., Jemiai, N., & Mossialos, E. (2014). Mapping support policies for informal carers across the European Union. *Health Policy*, *118*(1), 84-94. doi: 10.1016/j.healthpol.2014.07.013
48. Curran, J. A., Breneol, S., & Vine, J. (2020). Improving transitions in care for children with complex and medically fragile needs: a mixed methods study. *BMC Pediatrics*, *20*(1), 219. https://doi.org/10.1186/s12887-020-02117-6
49. Critical Appraisal Skills Programme. CASP qualitative checklist, https://casp-uk.net/wp-content/uploads/2018/01/CASP-Qualitative-Checklist-2018.pdf (accessed 14 June 2021).
50. Da Roit, B., & Le Bihan, B. (2010). Similar and yet so different: Cash-for-Care in six European countries' long-term care policies. *Milbank Quarterly*, *88*(3), 286-309. doi: 10.1111/j.1468-0009.2010.00601.x
51. Daliri, S., Bekker, C. L., Buurman, B. M., Scholte Op Reimer, W. J. M., van den Bemt, B. J. F., & Karapinar-Çarkit, F. (2019). Barriers and facilitators with medication use during the transition from hospital to home: a qualitative study among patients. *BMC Health Services Research*, *19*(1), 204. https://doi.org/10.1186/s12913-019-4028-y
52. Davis, M. M., Devoe, M., Kansagara, D., Nicolaidis, C., & Englander, H. (2012). "Did I do as best as the system would let me?" Healthcare professional views on hospital to home care transitions. *Journal of General Internal Medicine*, *27*(12), 1649–1656. https://doi.org/10.1007/s11606-012-2169-3
53. DeVellis, R. F. (2003). Scale Development: Theory and Applications (2nd ed., Vol. 26). Thousand Oaks, CA: Sage Publications.
54. Di Novi, C., Jacobs, R., & Migheli, M. (2015). The quality of life of female informal caregivers: from Scandinavia to the Mediterranean sea. *European Journal of Population*, *31*(3), 309-333. doi: 10.1007/s10680-014-9336-7
55. Dickinson, D. (2001). The Carrot vs. the Stick in Work Team Motivation. *Experimental Economics,* 4, 107–24.
56. Donabedian, A. (1966). Evaluating the Quality of Medical Care. *The Milbank Memorial Fund Quarterly*, *44*(3), 166–206. https://doi.org/10.2307/3348969
57. Effective Public Health Practice Project. (1998). Quality assessment tool for quantitative studies. *National Collaborating Centre for Methods and Tools, McMaster University, Hamilton,*

Ontario.

58. Ekdahl, A. W. (2014). The organisation of hospitals and the remuneration systems are not adapted to frail old patients giving them bad quality of care and the staff feelings of guilt and frustration. *European Geriatric Medicine*, *5*(1), 35-38.
59. Elder, N. C., & Hickner, J. (2005). Missing clinical information: the system is down. *JAMA*, *293*(5), 617–619. https://doi.org/10.1001/jama.293.5.617
60. European Commission – Directorate General for Economic and Financial Affairs and Economic Policy Committee – Ageing Working Group (2012). *The 2012 Ageing Report: Economic and budgetary projections for the 27 EU Member States (2010- 2060)*. European Economy, No. 2, Brussels.
61. European Commission & the Social Protection Committee. (2021). Long-term care report: trends, challenges and opportunities in an ageing society, 1, ISBN 978-92-76-38351-2
62. European Commission. (2012). *European economy. Long-term care: need, use and expenditure in the EU-27*. Brussels: Publications Office of the European Union.
63. European Commission. (2016). *ESPN Thematic Report on work-life balance measures for persons of working age with dependent relatives, Belgium*. Brussels: European Commission.
64. European Commission. (2018). *Informal care in Europe. Exploring formalisation, availability and quality.* Luxembourg: Publications Office of the European Union.
65. European Commission. (2019). *Joint report on health care and long-term care systems and fiscal sustainability - country documents*. Luxembourg: Publication Office of the European Union.
66. Eurostat. (2023a). *People having a long-standing illness or health problem, by sex, age and income quintile*. [Data set]. European Commission. http://data.europa.eu/88u/dataset/cildgmrwhxiss5w7jzgmlq (Original work published 2023)
67. Eurostat. (2023b). *Self-perceived long-standing limitations in usual activities due to health problem by sex, age and income quintile*. [Data set]. European Commission. http://data.europa.eu/88u/dataset/ajfk0zem50ytmftbmlpvw (Original work published 2023)
68. Eurostat. (2023c). *Total fertility rate*. (2023c). [Data set]. European Commission, Eurostat. http://data.europa.eu/88u/dataset/byj3ffio44yxkjxqitfwa (Original work published 2023)
69. Fagan, P. J., Schuster, A. B., Boyd, C., Marsteller, J. A., Griswold, M., Murphy, S. M., ...& Forrest, C. B. (2010). Chronic care improvement in primary care: evaluation of an integrated pay-for-performance and practice-based care coordination program among elderly patients with diabetes. *Health Services Research*, *45*(6p1), 1763-1782.
70. Fakha, A., Groenvynck, L., de Boer, B., van Achterberg, T., Hamers, J., & Verbeek, H. (2021). A myriad of factors influencing the implementation of transitional care innovations: a scoping review. *Implementation Science*, *16*(1), 21. https://doi.org/10.1186/s13012-021-01087-2
71. Fakha, A., Groenvynck, L., de Boer, B., van Achterberg, T., Hamers, J., & Verbeek, H. (2021). A myriad of factors influencing the implementation of transitional care innovations: a scoping review. *Implement Science*, *16*(1), 21. https://doi.org/10.1186/s13012-021-01087-2
72. Fitzpatrick, J. M., & Tzouvara, V. (2019). Facilitators and inhibitors of transition for older people who have relocated to a long-term care facility: A systematic review. *Health & Social Care in the Community*, *27*(3), e57–e81. https://doi.org/10.1111/hsc.12647

73. Flierman, I., van Seben, R., van Rijn, M., Poels, M., Buurman, B. M., & Willems, D. L. (2020). Health Care Providers' Views on the Transition Between Hospital and Primary Care in Patients in the Palliative Phase: A Qualitative Description Study. *Journal of Pain and Symptom Management*, *60*(2), 372-380. https://doi.org/10.1016/j.jpainsymman.2020.02.018
74. Fong, J. H. (2019). Disability incidence and functional decline among older adults with major chronic diseases. *BMC Geriatrics*, *19*. https://doi.org/10.1186/s12877-0191348-z
75. Forster, A. J., Murff, H. J., Peterson, J. F., Gandhi, T. K., & Bates, D. W. (2003). The incidence and severity of adverse events affecting patients after discharge from the hospital. *Annals of Internal Medicine*, *138*(3), 161–167. https://doi.org/10.7326/0003-4819-138-3-200302040-00007
76. Given, B., Sherwood, P. R., & Given, C. W. (2008). What knowledge and skills do caregivers need?. *The American journal of nursing*, *108*(9), 28–34. https://doi.org/10.1097/01.NAJ.0000336408.52872.d2
77. Glasziou, P. P., Buchan, H., Del Mar, C., Doust, J., Harris, M., Knight, R., Scott, A., Scott, I. A., & Stockwell, A. (2012). When financial incentives do more good than harm: a checklist. *BMJ*, *345*. https://doi.org/10.1136/bmj.e5047
78. Goodwin, N. (2016). Understanding integrated care. *International Journal of Integrated Care*, *16*(4). https://doi.org/10.5334/ijic.2530
79. Greenhalgh, T., Hinton, L., Finlay, T., Macfarlane, A., Fahy, N., Clyde, B., & Chant, A. (2019). Frameworks for supporting patient and public involvement in research: Systematic review and co-design pilot. *Health expectations: An International Journal of Public Participation in Health Care and Health Policy*, *22*(4), 785–801. https://doi.org/10.1111/hex.12888
80. Grimmer, K., & Moss, J. (2001). The development, validity and application of a new instrument to assess the quality of discharge planning activities from the community perspective. *International Journal for Quality in Health Care*, *13*(2), 109-116.
81. Groenvynck, L., de Boer, B., Beaulen, A., de Vries, E., Hamers, J. P. H., van Achterberg, T., van Rossum, E., Khemai, C., Meijers, J. M. M., & Verbeek, H. (2022). The paradoxes experienced by informal caregivers of people with dementia during the transition from home to a nursing home. *Age and Ageing*, *51*(2). https://doi.org/10.1093/ageing/afab241
82. Gruber, E. M., Zeiser, S., Schroder, D., & Buscher, A. (2021). Workforce issues in home- and community-based long-term care in Germany. *Health & Social Care in the Community*, *29*(3), 746-755. https://doi.org/10.1111/hsc.13324
83. Hacker, J. (2004). Privatizing risk without privatizing the welfare state: the hidden politics of social policy retrenchment in the United States. *American Political Science Review*, *98*(2), 243-260. doi: 10.1017/s0003055404001121
84. Hahn-Goldberg, S., Jeffs, L., Troup, A., Kubba, R., & Okrainec, K. (2018). "we are doing it together"; the integral role of caregivers in a patients' transition home from the medicine unit. *PLoS ONE*, *13*(5). https://doi.org/10.1371/journal.pone.0197831
85. Hamine, S., Gerth-Guyette, E., Faulx, D., Green, B. B., & Ginsburg, A. S. (2015). Impact of mHealth chronic disease management on treatment adherence and patient outcomes: a systematic review. *Journal of Medical Internet Research*, *17*(2), e52. https://doi.org/10.2196/jmir.3951

86. Hanlon, P., Daines, L., Campbell, C., McKinstry, B., Weller, D., & Pinnock, H. (2017). Telehealth Interventions to Support Self-Management of Long-Term Conditions: A Systematic Metareview of Diabetes, Heart Failure, Asthma, Chronic Obstructive Pulmonary Disease, and Cancer. *Journal of Medical Internet Research*, *19*(5), e172. https://doi.org/10.2196/jmir.6688
87. Hardesty, D. M., & Bearden, W. O. (2004). The use of expert judges in scale development: Implications for improving face validity of measures of unobservable constructs. *Journal of Business Research, 57*(2), 98–107. https://doi.org/10.1016/S0148-2963(01)00295-8
88. Hastings, S. N., & Heflin, M. T. (2005). A systematic review of interventions to improve outcomes for elders discharged from the emergency department. *Academic Emergency Medicine*, *12*(10), 978–986. https://doi.org/10.1197/j.aem.2005.05.032
89. He, D., & McHenry, P. (2013). Does labor force participation reduce informal caregiving?. *SSRN Electronic Journal*. doi: 10.2139/ssrn.2292700
90. Health Quality Ontario. (2015). LTC Indicator Review Report: The Review and Selection of Indicators for Long-term Care Public Reporting. Health Quality Ontario. https://www.hqontario.ca/Portals/0/documents/system-performance/ltc-indicator-review-report-november-2015.pdf. (Accessed 19 October 2022)
91. Hillis, R., Brenner, M., Larkin, P. J., Cawley, D., & Connolly, M. (2016). The Role of Care Coordinator for Children with Complex Care Needs: A Systematic Review. *International Journal of Integrated Care*, *16*(2), 12. https://doi.org/10.5334/ijic.2250
92. Hirose, K., & Czepulis-Rutkowska, Z. (2016). *Challenges in long-term care of the elderly in Central and Eastern Europe*. Geneva: International Labour Organization.
93. Hoffman, G. J., Shuman, C. J., Montie, M., Anderson, C. A., & Titler, M. G. (2019). Caregivers' views of older adult fall risk and prevention during hospital-to-home transitions. *Applied Nursing Research*, *47*, 10–15. https://doi.org/10.1016/j.apnr.2019.03.006
94. Hollander, M. J., & Kadlec, H. (2015). Incentive-based primary care: cost and utilization analysis. *The Permanente Journal*, *19*(4), 46.
95. Houle, S. K., McAlister, F. A., Jackevicius, C. A., Chuck, A. W., & Tsuyuki, R. T. (2012). Does performance-based remuneration for individual health care practitioners affect patient care?: a systematic review. *Annals of Internal Medicine*, *157*(12), 889–899. https://doi.org/10.7326/0003-4819-157-12-201212180-00009
96. Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277-1288.
97. Hultberg, E. L., Glendinning, C., Allebeck, P., & Lönnroth, K. (2005). Using pooled budgets to integrate health and welfare services: a comparison of experiments in England and Sweden. *Health and Social Care in the Community*, *13*(6), 531-541.
98. Inouye, S. K., Studenski, S., Tinetti, M. E., & Kuchel, G. A. (2007). Geriatric syndromes: Clinical, research, and policy implications of a core geriatric concept. *Journal of the American Geriatrics Society*, *55*(5), 780–791. https://doi.org/10.1111/j.1532-5415.2007.01156.x
99. Institute for Health Metrics and Evaluation (IHME). (2019). GBD Compare. Seattle, WA: IHME, University of Washington, 2023. Available from http://vizhub.healthdata.org/gbd-compare.

(Accessed 10 April 2023)

100. Institute of Medicine (US) Committee on Quality of Health Care in America. (2001). *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington (DC). National Academies Press (US).
101. Ionescu-Ittu, R., McCusker, J., Ciampi, A., Vadeboncoeur, A.-M., Roberge, D., Larouche, D., Verdon, J., & Pineault, R. (2007). Continuity of Primary Care and emergency department utilization among elderly people. *Canadian Medical Association Journal*, *177*(11), 1362–1368. https://doi.org/10.1503/cmaj.061615
102. Jasinarachchi, K. H., Ibrahim, I. R., Keegan, B. C., Mathialagan, R., McGourty, J. C., Phillips, J. R., & Myint, P. K. (2009). Delayed transfer of care from NHS secondary care to primary care in England: its determinants, effect on hospital bed days, prevalence of acute medical conditions and deaths during delay, in older adults aged 65 years and over. *BMC Geriatrics*, *9*, 4. https://doi.org/10.1186/1471-2318-9-4
103. Jaul, E., & Barron, J. (2017). Age-related diseases and clinical and public health implications for the 85 years old and over population. *Frontiers in Public Health*, *5*. https://doi.org/10.3389/fpubh.2017.00335
104. Jeffs, L., Lyons, R. F., Merkley, J., & Bell, C. M. (2013). Clinicians' views on improving inter-organizational care transitions. *BMC Health Services Research*, *13*, 289. https://doi.org/10.1186/1472-6963-13-289
105. Jencks, S. F., Williams, M. V., & Coleman, E. A. (2009). Rehospitalizations among patients in the Medicare fee-for-service program. *The New England Journal of Medicine*, *360*(14), 1418–1428. https://doi.org/10.1056/NEJMsa0803563
106. Jensen, M.C., Meckling, W.H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Journal of Financial Economics, 3*(4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X
107. Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, *47*(2), 263–291. https://doi.org/10.2307/1914185
108. Kapoor, A., Field, T., Handler, S., Fisher, K., Saphirak, C., Crawford, S., Fouayzi, H., Johnson, F., Spenard, A., Zhang, N., & Gurwitz, J. H. (2019). Adverse Events in Long-term Care Residents Transitioning From Hospital Back to Nursing Home. *JAMA Internal Medicine*, *179*(9), 1254–1261. https://doi.org/10.1001/jamainternmed.2019.2005
109. Kaschowitz, J., & Brandt, M. (2017). Health effects of informal caregiving across Europe: A longitudinal approach. *Social Science & Medicine*, *173*, 72-80. doi: 10.1016/j.socscimed.2016.11.036
110. Kasdorf, A., Dust, G., Vennedey, V., Rietz, C., Polidori, M., Voltz, R., & Strupp, J. (2021). What are the risk factors for avoidable transitions in the last year of life? A qualitative exploration of professionals' perspectives for improving care in Germany. *BMC Health Services Research*, *21*(147). https://doi.org/doi.org/10.1186/s12913-021-06138-4
111. Kasper, J. D., Wolff, J. L., & Skehan, M. (2019). Care Arrangements of Older Adults: What They Prefer, What They Have, and Implications for Quality of Life. *The Gerontologist*, *59*(5), 845–855. https://doi.org/10.1093/geront/gny127

112. Kasteridis, P., Mason, A., Goddard, M., Jacobs, R., Santos, R., Rodriguez-Sanchez, B., & McGonigal, G. (2016). Risk of care home placement following acute hospital admission: Effects of a pay-for-performance scheme for dementia. *PLoS One*, *11*(5), e0155850.
113. Kehusmaa, S., Autti-Rämö, I., Helenius, H., & Rissanen, P. (2013). Does informal care reduce public care expenditure on elderly care? Estimates based on Finland's Age Study. *BMC Health Services Research*, *13*(1). doi: 10.1186/1472-6963-13-317.
114. Kern, L. M., Reshetnyak, E., Colantonio, L. D., Muntner, P. M., Rhodes, J. D., Casalino, L. P., Rajan, M., Pesko, M., Pinheiro, L. C., & Safford, M. M. (2020). Association between patients' self-reported gaps in care coordination and preventable adverse outcomes: A cross-sectional survey. *Journal of General Internal Medicine*, *35*(12), 3517–3524. https://doi.org/10.1007/s11606-020-06047-y
115. Keshta, I., & Odeh, A. (2021). Security and privacy of Electronic Health Records: Concerns and challenges. *Egyptian Informatics Journal*, *22*(2), 177–183. https://doi.org/10.1016/j.eij.2020.07.003
116. Kim, H., & Jeon, B. (2020). Developing a framework for performance assessment of the public long-term care system in Korea: methodological and policy lessons. *Health Research Policy and Systems*, *18*, 27. https://doi.org/10.1186/s12961-020-0529-8
117. Kim, Y. S., Kleerup, E. C., Ganz, P. A., Ponce, N. A., Lorenz, K. A., & Needleman, J. (2015). Medicare payment policy creates incentives for long-term care hospitals to time discharges for maximum reimbursement. *Health Affairs*, *34*(6), 907-915.
118. Kingston, A., Wohland, P., Wittenberg, R., Robinson, L., Brayne, C., & Matthews, F. et al. (2017). Is late-life dependency increasing or not? A comparison of the Cognitive Function and Ageing Studies (CFAS). *The Lancet*, *390*(10103), 1676-1684. doi: 10.1016/s0140-6736(17)31575-1
119. Klauber, J., Kuhlmey, A., Schwinger, A., Jacobs, K., & Greß, S. (2017). *Pflege-Report 2017: Schwerpunkt: Die Versorgung der Pflegebedürftigen*. S. Verlag.
120. Kohn, K. T., Corrigan, J. M., & Donaldson, M. S. (2000). *To Err is Human: Building a Safer Health System Building a Safer Health System*. Committee on Quality of Health Care in America, Institute of Medicine: National Academy Press
121. Konieczna, A. (2021). Can Elderly People Afford Long-Term Care? Financing Long-Term Care in Poland and the Financial Resources Available to Beneficiaries. *European Research Studies Journal*, *24*(2B), 1041-1054.
122. Krabbe-Alkemade, Y., Makai, P., Shestalova, V., & Voesenek, T. (2020). Containing or shifting? Health expenditure decomposition for the aging Dutch population after a major reform. *Health Policy (Amsterdam, Netherlands)*, *124*(3), 268-274. doi: 10.1016/j.healthpol.2019.12.016
123. Kripalani, S., Jackson, A. T., Schnipper, J. L., & Coleman, E. A. (2007). Promoting effective transitions of care at hospital discharge: a review of key issues for hospitalists. *Journal of Hospital Medicine*, *2*(5), 314–323. https://doi.org/10.1002/jhm.228
124. Kripalani, S., LeFevre, F., Phillips, C. O., Williams, M. V., Basaviah, P., & Baker, D. W. (2007). Deficits in communication and information transfer between hospital-based and primary care physicians: implications for patient safety and continuity of care. *JAMA*, *297*(8), 831–841. https://doi.org/10.1001/jama.297.8.831

125. Kripalani, S., Theobald, C. N., Anctil, B., & Vasilevskis, E. E. (2014). Reducing hospital readmission rates: current strategies and future directions. *Annual Review of Medicine*, *65*, 471–485. https://doi.org/10.1146/annurev-med-022613-090415
126. Kukulski, K., Cadel, L., Marcinow, M., Sandercock, J., & Guilcher, S. J. T. (2022). Expanding our understanding of factors impacting delayed hospital discharge: Insights from patients, caregivers, providers and organizational leaders in Ontario, Canada. *Health Policy*, *126*(4), 310-317. https://doi.org/10.1016/j.healthpol.2022.02.001
127. LaMantia, M. A., Scheunemann, L. P., Viera, A. J., Busby-Whitehead, J., & Hanson, L. C. (2010). Interventions to improve transitional care between nursing homes and hospitals: a systematic review. *Journal of the American Geriatrics Society*, *58*(4), 777-782.
128. Landeiro, F., Roberts, K., Gray, A. M., & Leal, J. (2019). Delayed Hospital Discharges of Older Patients: A Systematic Review on Prevalence and Costs. *Gerontologist*, *59*(2), e86-e97. https://doi.org/10.1093/geront/gnx028
129. Langdown, C., & Peckham, S. (2014). The use of financial incentives to help improve health outcomes: is the quality and outcomes framework fit for purpose? A systematic review. *Journal of Public Health (Oxford, England)*, *36*(2), 251–258. https://doi.org/10.1093/pubmed/fdt077
130. Laugaland, K., Aase, K., & Waring, J. (2014). Hospital discharge of the elderly-an observational case study of functions, variability and performance-shaping factors. *BMC Health Services Research*, *14*(1), 1-15.
131. Lehnert, T., Heuchert, M., Hussain, K., & Konig, H. (2019). Stated preferences for long-term care: a literature review. *Ageing and Society*, 39(9), 1873-1913. doi: 10.1017/s0144686x18000314
132. Lethin, C., Leino-Kilpi, H., Roe, B., Soto, M., Saks, K., & Stephan, A. et al. (2016). Formal support for informal caregivers to older persons with dementia through the course of the disease: an exploratory, cross-sectional study. *BMC Geriatrics*, *16*(1). doi: 10.1186/s12877-016-0210-9
133. Levinson, D. R., & General, I. (2014). Adverse events in skilled nursing facilities: National incidence among Medicare beneficiaries. *Washington DC: Department of Health and Human Services*.
134. Levitsky, S. (2014). *Caring for our own: Why there is no political demand for new American social welfare rights.* (1st ed.). New York: Oxford University Press.
135. Li, J., Young, R., & Williams, M. V. (2014). Optimizing transitions of care to reduce rehospitalizations. *Cleveland Clinical Journal of Medicine*, *81*(5), 312–320. https://doi.org/10.3949/ccjm.81a.13106
136. Lilly, M., Laporte, A., & Coyte, P. (2007). Labor market work and home care's unpaid caregivers: a systematic review of labor force participation rates, predictors of labor market withdrawal, and hours of work. *Milbank Quarterly*, *85*(4), 641-690. doi: 10.1111/j.1468-0009.2007.00504.x
137. Mant, J. (2001). Process versus outcome indicators in the assessment of quality of health care. *International Journal for Quality in Health Care*, *13*(6), 475–480. https://doi.org/10.1093/intqhc/13.6.475
138. Meador, R., Chen, E., Schultz, L., Norton, A., Henderson, C., Jr, & Pillemer, K. (2011). Going home: identifying and overcoming barriers to nursing home discharge. *Care Management Journals*, *12*(1), 2–11. https://doi.org/10.1891/1521-0987.12.1.2

139. Medicare Payment Advisory Commission. (2007). June 2007 report to the Congress: *promoting greater efficiency in medicare.*
140. Mendelson, A., Kondo, K., Damberg, C., Low, A., Motúapuaka, M., Freeman, M., O'Neil, M., Relevo, R., & Kansagara, D. (2017). The Effects of Pay-for-Performance Programs on Health, Health Care Use, and Processes of Care: A Systematic Review. *Annals of Internal Medicine*, *166*(5), 341–353. https://doi.org/10.7326/M16-1881
141. MISSOC (2019). *MISSOC Comparative Tables*, MISSOC database, https://www.missoc.org/missoc-database/comparative-tables/results/
142. Mitchell, S. E., Laurens, V., Weigel, G. M., Hirschman, K. B., Scott, A. M., Nguyen, H. Q., Howard, J. M., Laird, L., Levine, C., Davis, T. C., Gass, B., Shaid, E., Li, J., Williams, M. V., & Jack, B. W. (2018). Care Transitions From Patient and Caregiver Perspectives. *Annals of Family Medicine*, *16*(3), 225–231. https://doi.org/10.1370/afm.2222
143. Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group*, T. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of internal medicine*, *151*(4), 264-269.
144. Möller, K.H., & Makoski, K. (2015). Der Arztbrief – Rechtliche Rahmenbedingungen. *KrV Kranken- und Pflegeversicherung*, 5. DOI: https://doi.org/10.37307/j.2193-5661.2015.05.05
145. Morgado, F. F., Meireles, J. F., Neves, C. M., Amaral, A. C., & Ferreira, M. E. (2017). Scale development: Ten main limitations and recommendations to improve future research practices. *Psicologia: Reflexão e Crítica*, *30*(1). https://doi.org/10.1186/s41155-016-0057-1
146. Morgan, S., & Yoder, L. H. (2012). A concept analysis of person-centered care. *Journal of holistic nursing : official journal of the American Holistic Nurses' Association*, *30*(1), 6–15. https://doi.org/10.1177/0898010111412189
147. Morton, S., Berg, A., Levit, L., & Eden, J. (Eds.). (2011). Finding what works in health care: standards for systematic reviews.
148. Mosca, I., van der Wees, P. J., Mot, E. S., Wammes, J. J. G., & Jeurissen, P. P. T. (2017). Sustainability of Long-term Care: Puzzling Tasks Ahead for Policy-Makers. *International Journal of Health Policy and Management*, *6*(4), 195–205. https://doi.org/10.15171/ijhpm.2016.109
149. Mot, E., & Bíró, A. (2012). Performance of Long-term Care Systems in Europe. ENEPRI Policy Brief No. 13, December http://aei.pitt.edu/38962/1/ENEPRI_PB_No_13_Performance_of_LTC_systems_in_Europe%5B1%5D.pdf. Accessed 10 April 2023.
150. Munshi, M. N., Florez, H., Huang, E. S., Kalyani, R. R., Mupanomunda, M., Pandya, N., Swift, C. S., Taveira, T. H., & Haas, L. B. (2016). Management of Diabetes in Long-term Care and Skilled Nursing Facilities: A Position Statement of the American Diabetes Association. *Diabetes Care*, *39*(2), 308–318. https://doi.org/10.2337/dc15-2512
151. Murman, D. (2015). The impact of age on cognition. *Seminars in Hearing*, *36*(03), 111–121. https://doi.org/10.1055/s-0035-1555115
152. Naylor, M. D., Brooten, D. A., Campbell, R. L., Maislin, G., McCauley, K. M., & Schwartz, J. S. (2004). Transitional care of older adults hospitalized with heart failure: A randomized, controlled trial. *Journal of the American Geriatrics Society*, *52*(5), 675–684. https://doi.org/10.1111/j.1532-

5415.2004.52202.x

153. Naylor, M. D., Shaid, E. C., Carpenter, D., Gass, B., Levine, C., Li, J., Malley, A., McCauley, K., Nguyen, H. Q., Watson, H., Brock, J., Mittman, B., Jack, B., Mitchell, S., Callicoatte, B., Schall, J., & Williams, M. V. (2017). Components of Comprehensive and Effective Transitional Care. *Journal of the American Geriatrics Society*, *65*(6), 1119–1125. https://doi.org/10.1111/jgs.14782
154. Naylor, M., & Keating, S. A. (2008). Transitional care. *American Journal of Nursing*, *108*(9), 58–63. https://doi.org/10.1097/01.naj.0000336420.34946.3a
155. Neubert, A., Baji, P., Tambor, M., Groot, W., Gulácsi, L., & Pavlova, M. (2019). Long-Term Care Financing in Europe: An overview. *Zdrowie Publiczne i Zarządzanie*, *17*(3), 131–145. https://doi.org/10.4467/20842627oz.19.015.11972
156. Nishi, T., Maeda, T., & Babazono, A. (2017). Impact of financial incentives for inter-provider care coordination on health-care resource utilization among elderly acute stroke patients. *International Journal for Quality in Health Care*, *29*(4), 490–498. https://doi.org/10.1093/intqhc/mzx053
157. Nolan A. (2011). An extension in eligibility for free primary care and avoidable hospitalisations: a natural experiment. *Social Science & Medicine*, *73*(7), 978–985. https://doi.org/10.1016/j.socscimed.2011.06.057
158. Nolte, E. & McKee, M. (eds.). (2008). Caring for people with chronic conditions: a health system perspective. Open University Press, Maidenhead, p. 195-221. https://researchonline.lshtm.ac.uk/id/eprint/6696
159. Oakes, S. L., Gillespie, S. M., Ye, Y., Finley, M., Russell, M., Patel, N. K., & Espino, D. (2011). Transitional care of the long-term care patient. *Clinics in Geriatric Medicine*, *27*(2), 259–271. https://doi.org/10.1016/j.cger.2011.02.004
160. OECD (2021). *Health at a Glance 2021: OECD Indicators.* OECD Publishing, Paris. https://doi.org/10.1787/ae3016b9-en
161. OECD. (2020). *Who cares? Attracting and retaining care workers for the elderly*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/92c0ef68-en.
162. OECD. (2019). *Health at a Glance 2019: OECD Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/4dd50c09-en
163. OECD. (2017). *Caring for Quality in Health: Lessons Learnt from 15 Reviews of Health Care Quality*. OECD Reviews of Health Care Quality. OECD Publishing. Paris. https://doi.org/10.1787/9789264267787-en.
164. OECD. (2017). *Health at a Glance 2017: OECD Indicators*, OECD Publishing, Paris. http://dx.doi.org/10.1787/health_glance-2017-e
165. OECD. (2015). *Health at a Glance 2015*: *OECD Indicators.* OECD Publishing, Paris. http://dx.doi.org/10.1787/health_glance-2015-en
166. OECD/European Commission. (2013). A Good Life in Old Age? Monitoring and Improving Quality in Long-term Care: OECD Health Policy Studies, OECD Publishing, https://doi.org/10.1787/9789264194564-en.
167. Oikonomou, E., Chatburn, E., Higham, H., Murray, J., Lawton, R., & Vincent, C. (2019). Developing a measure to assess the quality of care transitions for older people. *BMC Health Services*

Research, *19*(1), 505. https://doi.org/10.1186/s12913-019-4306-8

168. Oliva-Moreno, J., Peña-Longobardo, L., Mar, J., Masjuan, J., Soulard, S., & Gonzalez-Rojas, N. et al. (2018). Determinants of informal care, burden, and risk of burnout in caregivers of stroke survivors. *Stroke*, *49*(1), 140-146. doi: 10.1161/strokeaha.117.017575
169. Pan, C. C., Kung, P. T., Chiu, L. T., Liao, Y. P., & Tsai, W. C. (2017). Patients with diabetes in pay-for-performance programs have better physician continuity of care and survival. *The American Journal of Managed Care*, *23*(2), 57-66.
170. Parry, C., Mahoney, E., Chalmers, S. A., & Coleman, E. A. (2008). Assessing the quality of transitional care: further applications of the care transitions measure. *Medical Care*, *46*(3), 317–322. https://doi.org/10.1097/MLR.0b013e3181589bdc
171. Patient Protection and Affordable Care Act 2010. Pub. L. No. 111–148, 124 Stat. 408 (2010).
172. Phillipson, L., Magee, C., & Jones, S. (2013). Why carers of people with dementia do not utilize out-of-home respite services. *Health & Social Care in the Community,* 21(4), 411-422. doi: 10.1111/hsc.12030
173. Pickard, L. (2011). *The supply of informal care in Europe, ENEPRI Research Report No. 94*. Available at: www.ceps.be/book/supply-informal-care-europe.
174. Pickard, L., King, D., Brimblecombe, N., & Knapp, M. (2017). Public expenditure costs of carers leaving employment in England, 2015/2016. *Health & Social Care in the Community,* 26(1), 132-142. doi: 10.1111/hsc.12486
175. Pires, G., Lopes, A., Correia, P., Almeida, L., Oliveira, L., Panda, R., Jorge, D., Mendes, D., Dias, P., Gomes, N., & Pereira, T. (2023). Usability of a telehealth solution based on TV interaction for the elderly: the VITASENIOR-MT case study. *Universal Access in the Information Society*, *22*(2), 525–536. https://doi.org/10.1007/s10209-021-00859-3
176. Pizer, S. D., & Gardner, J. A. (2011). Is fragmented financing bad for your health?. *Journal of Medical Care Organization, Provision and Financing*, *48*(2), 109–122. https://doi.org/10.5034/inquiryjrnl_48.02.02
177. Plöthner, M., Schmidt, K., de Jong, L., Zeidler, J., & Damm, K. (2019). Needs and preferences of informal caregivers regarding outpatient care for the elderly: a systematic literature review. *BMC Geriatrics*, 19(1). doi: 10.1186/s12877-019-1068-4
178. Pohlmann, S., Kunz, A., Ose, D., Winkler, E. C., Brandner, A., Poss-Doering, R., Szecsenyi, J., & Wensing, M. (2020). Digitalizing Health Services by Implementing a Personal Electronic Health Record in Germany: Qualitative Analysis of Fundamental Prerequisites From the Perspective of Selected Experts. *Journal of Medical Internet Research*, *22*(1), e15102. https://doi.org/10.2196/15102
179. Poldervaart, J. M., van Melle, M. A., Reijnders, L. J., de Wit, N. J., & Zwart, D. L. (2019). Transitional safety incidents as reported by patients and healthcare professionals in the Netherlands: A descriptive study. *European Journal of General Practice*, *25*(2), 77-84. https://doi.org/10.1080/13814788.2018.1543396
180. Reed, J., Cook, G., Childs, S., & McCormack, B. (2005). A literature review to explore integrated care for older people. *International Journal of Integrated Care*, *5*(1). https://doi.org/10.5334/ijic.119
181. Reinhard, S. C., Kassner, E., Houser, A., Ujvari, K., Mollica, R., Hendrickson, L. (2014). Raising

Expectations: A State Scorecard on Long-Term Services and Supports for Older Adults, People with Physical Disabilities, and Family Caregivers. AARP, The Commonwealth Fund and The SCAN Foundation. https://www.aarp.org/content/dam/aarp/research/public_policy_institute/ltc/2014/raising-expectations-2014-AARP-ppi-ltc.pdf. Accessed 19 October 2022.

182. Riedel, M., & Kraus, M. (2016). Differences and similarities in monetary benefits for informal care in old and new EU member states. *International Journal of Social Welfare*, *25*(1), 7-17. doi: 10.1111/ijsw.12157
183. Rocco, P. (2017). Informal caregiving and the politics of policy drift in the United States. *Journal of Aging & Social Policy*, *29*(5), 413-432. doi: 10.1080/08959420.2017.1280748
184. Rogers, F., Huddle, P. A., & White, M. D. (2000). Using a teaching model to correct known misconceptions in electrochemistry. *Journal of Chemical Education*, *77*(1), 104.
185. Roth, D., Fredman, L., & Haley, W. (2015). informal caregiving and its impact on health: a reappraisal from population-based studies. *The Gerontologist*, *55*(2), 309-319. doi: 10.1093/geront/gnu177
186. Rzecznik Praw Pacjenta. (2022). Sprawozdanie Rzecznika Praw Pacjenta z przestrzegania praw pacjenta w 2021 r. Warszawa: Rzecznik Praw Pacjenta
187. Sanford, A. M., Morley, J. E., Berg-Weger, M., Lundy, J., Little, M. O., Leonard, K., & Malmstrom, T. K. (2020). High prevalence of geriatric syndromes in older adults. *PLoS ONE*, *15*(6). https://doi.org/10.1371/journal.pone.0233857
188. Schmidt, A., Fuchs, M., Rodrigues, R. (2016). *Policy Brief September 2016: Juggling family and work – Leaves from work to care informally for frail or sick family members – an international perspective*. European Centre for Social Welfare Policy and Research.
189. Schmitz, H., & Westphal, M. (2017). Informal care and long-term labor market outcomes. *Journal of Health Economics*, *56*, 1-18. doi: 10.1016/j.jhealeco.2017.09.002
190. Schoen, C., Osborn, R., Huynh, P. T., Doty, M., Peugh, J., & Zapert, K. (2006). On the front lines of care: primary care doctors' office systems, experiences, and views in seven countries. *Health Affairs (Project Hope)*, *25*(6), w555–571. https://doi.org/10.1377/hlthaff.25.w555
191. Shaw, S., Rosen, R., & Rumbold, B. (2011). (rep.). *An overview of integrated care in the NHS. What is integrated care?* London: Nuffield Trust.
192. Simonazzi, A. (2008). Care regimes and national employment models. *Cambridge Journal of Economics, 33*(2), 211-232. http://dx.doi.org/10.1093/cje/ben043
193. Smith, P., Mossialos, E., Papanicolas, I., & Leatherman, S. (Eds.). (2010). *Performance Measurement for Health System Improvement: Experiences, Challenges and Prospects* (Health Economics, Policy and Management). Cambridge: Cambridge University Press. Doi:10.1017/CB09780511711800
194. Snow, K., Galaviz, K., & Turbow, S. (2020). Patient Outcomes Following Interhospital Care Fragmentation: A Systematic Review. *Journal of General Internal Medicine*, *35*(5), 1550-1558. https://doi.org/10.1007/s11606-019-05366-z
195. Snow, V., Beck, D., Budnitz, T., Miller, D. C., Potter, J., Wears, R. L., Weiss, K. B., Williams, M. V., American College of Physicians, Society of General Internal Medicine, Society of Hospital Medicine, American Geriatrics Society, American College of Emergency Physicians, & Society of Academic Emergency Medicine (2009). Transitions of Care Consensus Policy Statement American College of Physicians-

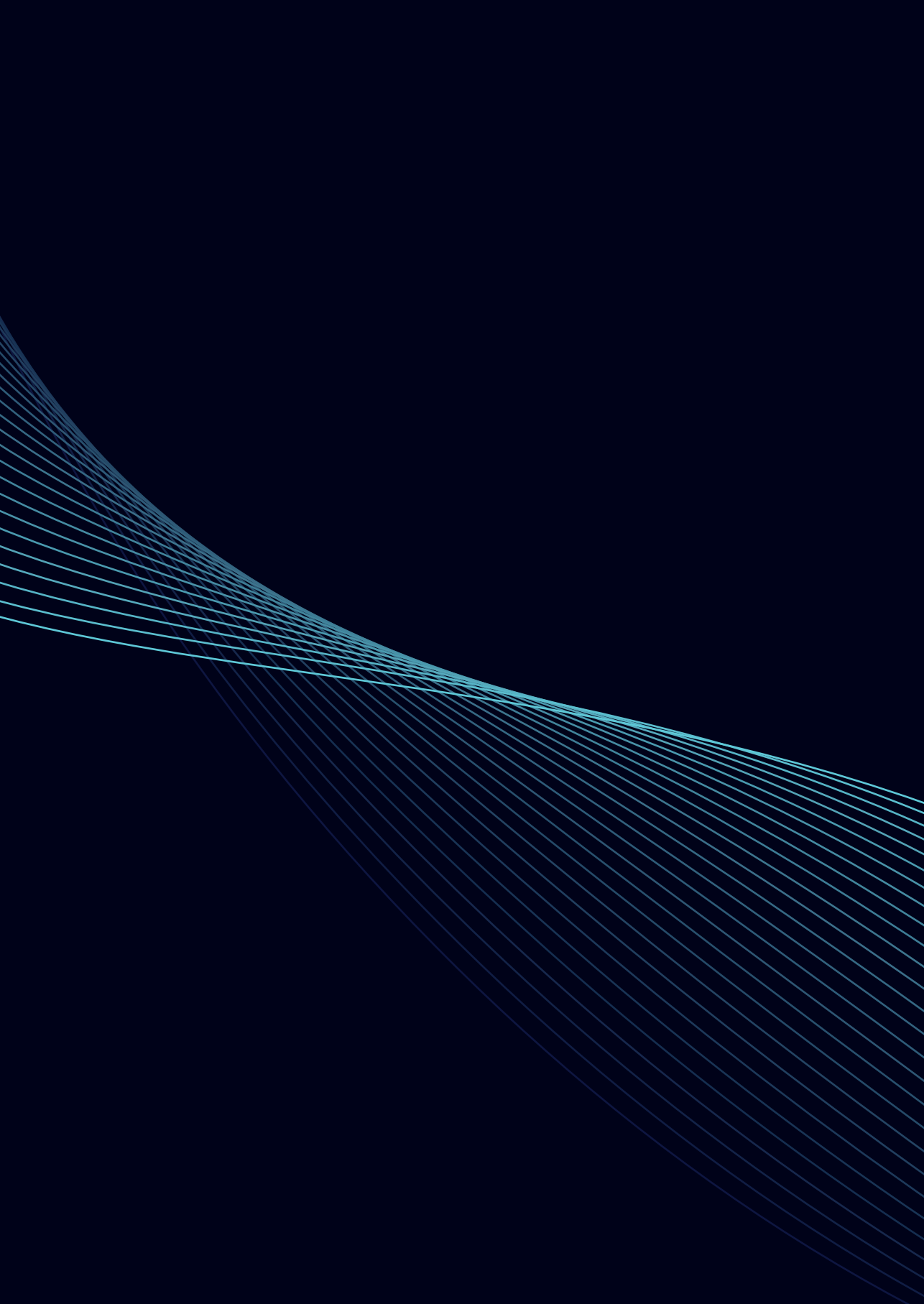
Society of General Internal Medicine-Society of Hospital Medicine-American Geriatrics Society-American College of Emergency Physicians-Society of Academic Emergency Medicine. *Journal of General Internal Medicine*, *24*(8), 971–976. https://doi.org/10.1007/s11606-009-0969-x

196. Sokas, C. M., Hu, F. Y., Dalton, M. K., Jarman, M. P., Bernacki, R. E., Bader, A., Rosenthal, R. A., & Cooper, Z. (2021). Understanding the role of informal caregivers in postoperative care transitions for older patients. *Journal of the American Geriatrics Society*, *70*(1), 208–217. https://doi.org/10.1111/jgs.17507
197. Sokas, C., Yeh, I. M., Bernacki, R. E., Rangel, E. L., Kaafarani, H., Mitchell, S. L., Bader, A. M., Ladin, K., Palmer, J. A., Tulsky, J. A., & Cooper, Z. (2021). Older adults' perspectives 3 months after emergency general surgery highlight opportunities to improve care. *Journal of the American Geriatrics Society*, *69*(7), 2023–2025. https://doi.org/10.1111/jgs.17152
198. Spasova, S., Baeten, R., Coster, S., Ghailani, D., Peña-Casas, R. and Vanhercke, B. (2018). *Challenges in long-term care in Europe. A study of national policies.* European Social Policy Network (ESPN), Brussels: European Commission
199. Starfield, B. (1992). *Primary care: Concept, evaluation, and policy*. Oxford University Press Inc.
200. Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of primary care to health systems and health. *The Milbank Quarterly*, *83*(3), 457–502. https://doi.org/10.1111/j.1468-0009.2005.00409.x
201. Stokes, J., Struckmann, V., Kristensen, S. R., Fuchs, S., van Ginneken, E., Tsiachristas, A., Rutten van Mölken, M., & Sutton, M. (2018). Towards incentivising integration: A typology of payments for integrated care. *Health Policy (Amsterdam, Netherlands)*, *122*(9), 963–969. https://doi.org/10.1016/j.healthpol.2018.07.003
202. Storm, M., Siemsen, I. M., Laugaland, K. A., Dyrstad, D. N., & Aase, K. (2014). Quality in transitional care of the elderly: Key challenges and relevant improvement measures. *International Journal of Integrated Care*, *14*(2). https://doi.org/10.5334/ijic.1194
203. Struckmann, V., Quentin, W., Busse, R., van Ginneken, E. (2017) How to strengthen financing mechanisms to promote care for people with multimorbidity in Europe?. (Policy Brief, No. 24). Retrieved from https://www.euro.who.int/en/about-us/partners/observatory-old/publications/policy-briefs-and-summaries/how-to-strengthen-financing-mechanisms-to-promote-care-for-people-with-multimorbidity-in-europe
204. Struijs, J. N., Van Til, J. T., & Baan, C. A. (2010). Experimenting with a bundled payment system for diabetes care in the Netherlands: The first tangible effects. *RIVM rapport 260224002*
205. Suhonen, R., Stolt, M., Koskenniemi, J., & Leino-Kilpi, H. (2015). Right for knowledge – the perspective of significant others of persons with memory disorders. *Scandinavian Journal of Caring Sciences*, *29*(1), 83-92
206. Swinkels, J., Van Tilburg, T., Verbakel, E., & Van Groenou, M. (2019). Explaining the gender gap in the caregiving burden of partner caregivers. *Journal of Gerontology. Series B, Psychological Sciences and Social Sciences*, *74*(2), 309-317.
207. Szweda-Lewandowska, Z. (2015). Niesamodzielni A.D. 2035 – w poszukiwaniu sposobów i źródeł wsparcie. *Acta Universitatis Lodziensis, Folia Oeconomica*, *4*(315), 173-182. https://doi.org/10.18778/0208-6018.315.12

208. Szweda-Lewandowska, Z. (2022). The role of health and social care workers in long-term care for elders in Poland, Czechia, Hungary and Slovakia: The transition from institutional to community care. *International Social Security Review*, *75*(3-4), 145-166. https://doi.org/doi.org/10.1111/issr.12311
209. Tambor, M., & Pavlova, M. (2020). *Can people afford to pay for health care? New evidence on financial protection in Poland*. WHO Regional Office for Europe, Copenhagen.
210. Teale, E. A., & Young, J. B. (2015). A patient reported experience measure (PREM) for use by older people in community services. *Age and Ageing*, *44*(4), 667-672.
211. The Community Care (Delayed Discharges, etc.) Act 2003. HSC 2003/009: LAC. (2003).
212. Thorpe, K. E., & Howard, D. H. (2006). The rise in spending among Medicare beneficiaries: the role of chronic disease prevalence and changes in treatment intensity. *Health Affairs (Project Hope)*, *25*(5), w378–388. https://doi.org/10.1377/hlthaff.25.w378
213. Tomlinson, J., Cheong, V. L., Fylan, B., Silcock, J., Smith, H., Karban, K., & Blenkinsopp, A. (2020). Successful care transitions for older people: a systematic review and meta-analysis of the effects of interventions that support medication continuity. *Age and Ageing*, *49*(4), 558–569. https://doi.org/10.1093/ageing/afaa002
214. Tomlinson, J., Silcock, J., Smith, H., Karban, K., & Fylan, B. (2020). Post-Discharge medicines management: The experiences, perceptions and roles of older people and their family carers. *Health Expectations*, *23*(6), 1603–1613. https://doi.org/10.1111/hex.13145
215. Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, *19*(6), 349-357. https://doi.org/10.1093/intqhc/mzm042
216. Toscan, J., Mairs, K., Hinton, S., Stolee, P., & Info Rehab Research Team (2012). Integrated transitional care: patient, informal caregiver and health care provider perspectives on care transitions for older persons with hip fracture. *International Journal of Integrated Care*, *12*, e13. https://doi.org/10.5334/ijic.797
217. TRANS-SENIOR. (n.d.). Main page. https://www.trans-senior.eu/. Accessed 18 August 2021.
218. Triantafillou, J. et al. (2010). *Informal care in the long-term care system.* European Overview paper. Athens/Vienna: Interlinks.
219. Tsiachristas, A. (2016). Financial incentives to stimulate integration of care. *International Journal of Integrated Care*, *16*(4). https://doi.org/10.5334/ijic.2532
220. Tsiachristas, A., Dikkers, C., Boland, M. R., & Rutten-van Mölken, M. P. (2013). Exploring payment schemes used to promote integrated chronic care in Europe. *Health Policy (Amsterdam, Netherlands)*, *113*(3), 296–304. https://doi.org/10.1016/j.healthpol.2013.07.007
221. Uittenbroek, R. J., Reijneveld, S. A., Stewart, R. E., Spoorenberg, S. L., Kremer, H. P., & Wynia, K. (2016). Development and psychometric evaluation of a measure to evaluate the quality of integrated care: the Patient Assessment of Integrated Elderly Care. *Health Expectations*, *19*(4), 962-972.
222. United Nations Department of Economic and Social Affairs, Population Division (2022). *World Population Prospects 2022: Summary of Results*. UN DESA/POP/2022/TR/NO. 3.
223. Van den Berg, B., & Hassink, W. (2008). Cash benefits in long-term home care. *Health Policy*, *88*(2-

3), 209-221. doi: 10.1016/j.healthpol.2008.03.010

224. Van Herck, P., De Smedt, D., Annemans, L., Remmen, R., Rosenthal, M. B., & Sermeus, W. (2010). Systematic review: Effects, design choices, and context of pay-for-performance in health care. *BMC Health Services Research*, *10*, 247. https://doi.org/10.1186/1472-6963-10-247
225. van Walraven, C., Bennett, C., Jennings, A., Austin, P. C., & Forster, A. J. (2011). Proportion of hospital readmissions deemed avoidable: a systematic review. *Canadian Medical Association Journal*, *183*(7), 391-402. https://doi.org/10.1503/cmaj.101860
226. van Walraven, C., Oake, N., Jennings, A., & Forster, A. J. (2010). The association between continuity of care and outcomes: a systematic and critical review. *Journal of Evaluation in Clinical Practice*, *16*(5), 947-956
227. Vandepitte, S., Van Den Noortgate, N., Putman, K., Verhaeghe, S., Verdonck, C., & Annemans, L. (2016). Effectiveness of respite care in supporting informal caregivers of persons with dementia: a systematic review. *International Journal of Geriatric Psychiatry*, 31(12), 1277-1288. doi: 10.1002/gps.4504
228. Verbeek-Oudijk, D., Woittiez, I. B., Eggink, E., & Putman, L. S. (2014). *Who cares in Europe?: A comparison of long-term care for the over-50s in sixteen European countries*. Den Haag: Sociaal en Cultureel Planbureau.
229. Weaver, F. M., Perloff, L., & Waters, T. (1999). Patients' and caregivers' transition from hospital to home: Needs and recommendations. *Home Health Care Services Quarterly*, *17*(3), 27–48. https://doi.org/10.1300/j027v17n03_03
230. World Health Organization. (2022, December 1). *Long-Term Care*. World Health Organization. https://www.who.int/europe/news-room/questions-and-answers/item/long-term-care
231. World Health Organization. (2018). Continuity and coordination of care: a practice brief to support implementation of the WHO Framework on integrated people-centred health services. World Health Organization. https://apps.who.int/iris/bitstream/handle/10665/274628/9789241514033-eng.pdf?ua=1
232. World Health Organization. (2016). *Transitions of Care: Technical Series on Safer Primary Care.* World Health Organization. https://apps.who.int/iris/handle/10665/252272
233. Yu, H. C., Tsai, W. C., & Kung, P. T. (2014). Does the pay-for-performance programme reduce the emergency department visits for hypoglycaemia in type 2 diabetic patients?. *Health Policy and Planning*, *29*(6), 732–741. https://doi.org/10.1093/heapol/czt056
234. Zarit, S., Bangerter, L., Liu, Y., & Rovine, M. (2017). Exploring the benefits of respite services to family caregivers: methodological issues and current findings. *Aging & Mental Health*, *21*(3), 224-231. doi: 10.1080/13607863.2015.1128881
235. Zurlo, A., & Zuliani, G. (2018). Management of care transition and hospital discharge. *Aging Clinical and Experimental Research*, *30*(3), 263-270. https://doi.org/10.1007/s40520-017-0885-6



APPENDICES

A

Appendices A
Appendices B
Appendices C

APPENDICES A
ADDITIONAL INFORMATION FOR CHAPTER 2

APPENDIX A1: Review Protocol

The review protocol is registered in the International Prospective Register of Systematic Reviews (PROSPERO) under identification number CRD42020162566. The objective of the systematic review was to identify all studies that address the financial and/or organizational aspects of care transition in the LTC systems. We perform the search in a systematic way to minimize the potential bias. Specifically, the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines were followed to design the search strategy.

Search strategy

The search was conducted in MEDLINE, EMBASE and CINAHL. The search strategy was developed in consultation with an academic health sciences librarian. Given the search objective, three components were used to build the search terms for the identification of key financial and organizational aspects affecting care transition in LTC systems. These components included: (1) old or geriatric or senior; (2) care transition or coordinated care or care continuity; (3) financing or organization. Moreover, different forms of the above words as well as relevant synonyms and subject heading terms appropriate for each database, were taken into account. All search terms can be found in Table S1.

Table S1. Search terms

Category 1	Category 2	Category 3
Elderly	Patient*	Financ*
Aged	Care*	Organi*
Aging	Clinical handover	Purchas*
Old	Coordinated care	Funding
Senior	Coordination of care	Provision
Geriatric	Continuity of care	Reimbursement
	Integrated care	

The exact chain of keywords for different databases is presented below.

A

EMBASE

"aged"/exp OR aged:ab, ti OR aging:ab, ti OR elderly:ab, ti OR old:ab, ti OR senior*:ab, ti OR geriatric:ab, ti AND "patient handoff" OR "patient handover" OR "hospital discharge"/exp OR "patient transfer" OR "transitional care"/exp OR "clinical handover"/exp OR "coordinated care"/exp OR "coordination of care" OR "care

coordination" OR "integrated care" OR "patient care"/exp OR "care continuum" AND "financial management"/exp OR "organization"/exp OR "provision" OR "purchasing"/exp OR "reimbursement"/exp

MEDLINE

("aged" [MeSH Terms] OR "aged" [Title/Abstract] OR "aging" [Title/Abstract] OR "elderly" [Title/Abstract] OR "old" [Title/Abstract] OR "senior*" [Title/Abstract] OR "geriatric" [Title/Abstract]) AND ("patient handoff" [MeSH Terms] or "patient handoff" [All Fields] OR "patient handover" [All Fields] OR "patient discharge" [MeSH Terms] OR "patient discharge" [All Fields] OR "patient transfer" [MeSH Terms] OR "Patient transfer" [All Fields] OR "transitional care" [MeSH Terms] OR "transitional care" [All Fields] OR "clinical handover" [All Fields] OR "coordinated care" [All Fields] OR "coordination of care" [All Fields] OR "care coordination" [All Fields] OR "integrated care" [All Fields] OR "care continuity" [All Fields] OR "continuity of care" [All Fields] OR "care continuum" [All Fields]) AND ("financing" [All Fields] OR "financ*" [All Fields] OR "funding" [All Fields] OR "organised" [All Fields] OR "organized" [All Fields] OR "organisational" [All Fields] OR "organizational" [All Fields] OR "organizing" [All Fields] OR "organising" [All Fields] OR "organization" [All Fields] OR "organisation" [All Fields] OR "provision" [All Fields] OR purchasing [All Fields] OR purchase* [All Fields] OR "reimbursement" [All Fields])

CINNAHL

((MM "aged") OR (TI "aged") OR (AB "aged") OR (TI "aging") OR (AB "aging") OR (TI "elderly") (AB "elderly") OR (TI "old") OR (AB "old") OR (TI "senior*") OR (AB "senior*") OR (TI "geriatric") OR (AB "geriatric")) AND ((MM "hand off") OR (TX "hand off") OR (TX "patient handover") OR (MM "patient discharge") OR (TX "patient discharge") OR (TX "patient transfer") OR (MM "transitional care") OR (TX "transitional care") OR (TX "clinical handover") OR (TX "coordinated care") OR (TX "coordination of care") OR (TX "care coordination") OR (TX "integrated care") OR (MM "continuity of patient care") OR (TX "continuity of patient care") OR (TX "care continuum")) AND ((MM "financing, organized") OR (TX "financing") OR (TX "financ*") OR (TX "organi*ed") OR (TX "organi*ational") OR (TX "organi*ing") OR (TX "organi*ation") OR (TX "provision") OR (TX "purchasing") OR (TX "purchase*") OR (MM "reimbursement mechanism") OR (MM "reimbursement mechanism") OR (TX "reimbursement mechanism") OR (TX "reimbursement"))

The search was limited to literature published between March 2005 and March 2020 (the last 15 years). No geographical or language restrictions were implied.

Eligibility criteria

The overall search included studies that focus on transitional care between the settings among older adults 60+. Sixty years of age was selected as an age describing "older adult" as suggested by the World Health Organization. No restrictions were placed on participants' gender or other demographic characteristics. All primary epidemiological observational study designs (i.e., cross-sectional, cohort, case-control studies), ecological studies and experimental studies were eligible. Reviews, commentaries, editorials and other non-primary research articles were excluded. Inclusion and exclusion criteria applied in the overall search are described below. Studies were included if (a) they reported on financial and organizational aspects of care transition in the LTC systems, (b) reported on financial and organizational aspects of care transition at the macro-level, mainly focusing on transitions between different settings and not within the setting (c) and their focus was on older adults (60 years or older). Studies were also included if data stratification was performed for individuals aged 60+. Studies were excluded if (a) they reported on financial and organizational aspects of care transition at the micro-level, care transition within the setting, (b) focus of the study was on individuals younger than 60 years of age, (c) focus was on palliative, hospice or end-of-life care.

Study selection

The selection process, based on the above inclusion and exclusion criteria, had three phases. First, a screening based on title and abstract was performed to identify potentially relevant studies, where 10% of the excluded papers were independently reviewed by a second reviewer (one of the co-authors). This was followed by a second screening based on full text to confirm the relevance of the studies. Third, the reference lists of the selected studies were screened to check for additional studies. Any disagreement about the eligibility of studies was resolved through discussion and consensus among all co-authors.

Quality assessment

The methodological quality and risk of bias of studies included in the review will be rigorously appraised with the use of Quality Assessment Tool for Quantitative Studies developed by Effective Public Health Practice Project and Critical Appraisal Skills Programme for qualitative studies. These tools enable the researcher to rank each study according to the guidelines provided along with the tools. Based on the score, each study will be classified either as low, average or high-quality study.

Data synthesis and analysis

The method of directed (relational) content analysis by Hsieh and Shannon will be applied to perform analysis of the publications. Within this approach, we will

identify the categories (themes) relevant to the review objective. The preliminary literature results provided us with the guidance for initial codes.

Thus, for the purpose of the review following themes will be used (see also Figure 2.2):

Themes for the review on organizational aspects of care transition:

- General organizational aspects that affect care transition
- Disease-specific organizational aspects that affect care transition

Themes for the review on financial aspects of care transition (see also Figure 2.2):

- Provider payment mechanisms
- Rewards
- Penalties

Based on these themes, the data extraction will be performed. Review results will be presented per themes in a narrative manner. Additionally, the results will be presented in the form of descriptive tables.

APPENDIX A2: Publications per year per category*

	Year																
Category	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
Organizational - General																	**270**
Coordination of resources	2	3	7	2	2	2	3	7	7	9	6	7	10	14	9*	*	**90**
Transfer of information and care responsibility	1	1	0	1	1	0	2	3	1	2	1	2	3	4	2*	*	**51**
Communication of health professionals	2	2	2	1	2	1	4	1	7	2	3	2	4	2	1*	*	**36**
Training and education of staff	3	2	2	4	3	3	5	4	4	3	1	4	6	6	0*	*	**24**
Opinions health professionals	1	1	1	0	1	0	3	2	2	2	1	4	1	1	2*	*	**22**
Education and involvement of the patient and family	0	0	1	0	1	2	3	1	2	2	2	1	0	2	1*	*	**18**
Opinions patients and family	1	0	1	1	0	0	1	2	3	0	2	1	2	2	1*	*	**17**
E-health	0	1	1	0	0	1	1	2	1	1	1	1	2	0	0*	*	**12**
Organizational – Disease/Condition Specific																	**33****
Coordination of resources	1	0	0	1	0	1	1	0	1	4	2	1	0	1	0*	*	**12**
Education and involvement of the patient and family	0	0	0	0	0	1	1	0	1	1	0	1	0	0	0*	*	**5**
Opinions health professionals	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0*	*	**4**
Opinions patients and family	0	2	0	0	0	0	0	0	1	0	0	0	1	0	0*	*	**4**
Communication of health professionals	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0*	*	**3**
Training and education of staff	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0*	*	**2**
E-health	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0*	*	**2**

Continued.

	Year																
Category	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
Transfer of information and care responsibility	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0*	*	**1**
Financial aspects																	
Provider payment mechanisms/ rewards/ / penalties	1	0	1	0	0	1	2	0	1	2	2	2	3	1	*	*	**16**
Social aspects																	
Social aspects	2	3	1	1	0	0	1	2	0	0	0	3	2	3	2*	*	**18**

APPENDIX B1: Financial mechanisms – outcomes and recommendations

Article	Financial mechanism	Measurement	Results	Recommendation	Impact on measured indicators
Anell & Glenngard (2014)	P4P	Utilization of hospital care, number of bed-days	There are certain problems associated with the process and outcome indicators in the primary care. Rewards may be random and do not reflect the actual engagement.	Authors suggestion is to use indicators for diagnostic purposes. Moreover, the use of indicators are most effective when integrated into a system of continuous monitoring and improvements.	Information not provided
Baumann et al., (2007)	Penalties for delayed discharge for responsible party	Information not provided	The efficiency of social services had improved. It also lead to early discharge schemes, increased use of nurse-led discharge and integrated discharge planning teams.	Authors suggest further research in 'high performing' sites as it should seek to examine the experiences of discharges patients.	+
Birkmeyer et al., (2010)	Episode-based payment bundling, single payment to all providers for care around surgical episode	Average total payments around inpatient surgery (hospital, physician, post-acute care) 30 days readmission	Average total payments for inpatient surgery episodes varied. Hospital payments accounted for the largest share of total payments. No evidence regarding savings achieved by episode-based bundled payments for inpatient surgery. Among specific types of payments, those associated with 30-day readmissions and postacute care varied most substantially across hospitals.	Fully bundled payments for inpatient surgical episodes would need to be dispersed among many different types of providers. There is a need for safeguards against unintended consequences of bundled payments. Bundled payments may provide incentives for hospitals and providers to skimp on necessary care. Hospitals should implement better systems for monitoring, benchmarking, and improving their quality and cost-efficiency with inpatient surgery.	+/-
Busetto et al., (2017)	Early complex geriatric rehabilitation	Effectiveness, efficiency, patient-centeredness, satisfaction, safety	Overuse of services by some patients, and under- and misuse of services by others, regardless of outcome. Revolving door effect. GFK contributed to unnecessary incurrence of costs (efficiency), an increased likelihood of adverse events or medical mistakes (safety), and frustration among staff (satisfaction).	Authors recommend and increased focus on trying to understand how intervention components interact with context factors and/ combined, lead to positive and/or negative outcomes.	-

APPENDIX B1. Continued.

Article	Financial mechanism	Measurement	Results	Recommendation	Impact on measured indicators
Briggs & Araujo de Carvalho (2018)	Information not provided	Information not provided	Information not provided	Information not provided	Information not provided
Chen & Cheng (2016)	P4P	The number of essential examinations/tests, continuity of care, health care outcomes	P4P program led to increase in the number of necessary examinations/tests and improved continuity of care between patients and their physicians, reduced likelihood of hospital admissions or ED visits.	Health authorities could develop policies to increase participation in P4P program and encourage continued improvement in health care outcomes. Moreover, it is recommended to investigate the reasons for inconsistent findings concerning the impact of P4P program in different health care systems for future studies.	+
Cheng, Lee & Chen (2012)	P4P	Long-term effects of P4P program, health care utilization - Essential examinations/tests performed at diabetes-related physician visits, Diabetes-related hospitalizations, Diabetes-related health care expenses Impact on overall health care expenses, including both diabetes-related and nondiabetic-related conditions.	P4P patients had significantly more diabetes specific examinations and tests. They also had a significantly higher number of diabetes-related physician visits (1st year) and had fewer diabetes-related hospitalization in the follow-up period. Health care expenses were higher for intervention group in the first year but spent significantly less than their counterparts in the subsequent years.	Authors suggest that this program could provide long-term cost savings for continual enrollees. Additional research is required to evaluate the cost-effectiveness of similar P4P programs.	+
Pan et al., (2017)	P4P	Mortality, patients' physician continuity	Diabetes P4P participants have higher physician continuity and lower HR of mortality. P4P could increase survival or improve treatment outcomes.	Health policy makers should evaluate the possibility of P4P programs in treating other chronic diseases, such as hypertension or kidney kidney disease.	+

APPENDIX B1. Continued.

Article	Financial mechanism	Measurement	Results	Recommendation	Impact on measured indicators
Ekdahl (2013)	Information not provided	Information not provided	Information not provided	It is essential to have remuneration system with incentives for continuity of care and which measures health outcomes other than those used for usual care e.g. quality of life and independence.	Information not provided
Fagan et al., (2010)	P4P	Quality of care for the incentivized care indicators, quality of care for the nonincentivized care indicators, utilization and medical costs incurred	This study did not generate evidence that P4P improved quality of care or resource use.	Authors suggest that perhaps further research involving interventions with clearer coordinator roles and/or larger financial incentives for physicians may demonstrate an improved intervention effect.	+/-
Hollander & Kadiec (2015)	P4P	Total annual costs of health care, number of indicators of hospital utilization	Incentive payments can and do avoid costs for the health care system (of course it depends which costs and which chronic conditions are looked at) and in general reduce patients' utilization of more costly hospital services.	Information not provided	+

APPENDIX B1. Continued.

Article	Financial mechanism	Measurement	Results	Recommendation	Impact on measured indicators
Cheng, Lee & Chen (2012)	P4P	Long-term effects of P4P program, health care utilization - Essential examinations/tests performed at diabetes-related physician visits, Diabetes-related hospitalizations, Diabetes-related health care expenses Impact on overall health care expenses, including both diabetes-related and nondiabetic-related conditions.	P4P patients had significantly more diabetes specific examinations and tests. They also had a significantly higher number of diabetes-related physician visits (1st year) and had fewer diabetes-related hospitalization in the follow-up period. Health care expenses were higher for intervention group in the first year but spent significantly less than their counterparts in the subsequent years.	Authors suggest that this program could provide long-term cost savings for continual enrollees. Additional research is required to evaluate the cost-effectiveness of similar P4P programs.	+
Hultberg et al., (2005)	Pooled budgets to integrate health and welfare services	Coordination Cost-effectiveness Experiences of service users	Limited evidence on the impact of pooled budgets on cost-effectiveness, behavior of front-line professionals, experiences of service users in England and Sweden. Creating and managing pooled budgets proved costly.	Additional work may also be required to help specific groups of professionals to break down their traditional differences in culture and ways of working. Need for major change management processes. Pooled budgets may be necessary, but not sufficient, factor in promoting service integration.	+/-
Kateridis et al., (2016)	P4P	Likelihood of care home placement following acute hospital admission	The review may reduce the probability of institutionalized care in those with dementia.	Information not provided	+
Kim et al., (2015)	DRG-specific short-stay threshold	Information not provided	Short-stay payment policy creates strong incentives for the hospitals to delay discharges until the threshold has been met.	There is urgent need to reexamine and restructure the payment system for long-term care hospitals and to clarify their expected and actual roles in care continuum, with the goal that incentives are properly aligned.	-

APPENDIX B1. Continued.

Article	Financial mechanism	Measurement	Results	Recommendation	Impact on measured indicators
Laugaland, Aase & Waring (2014)	Penalties for delayed discharge	Information not provided	Some discharges have to be rushed or transferred directly to home, even if short-term nursing home stay was recommended – implications for the patients' outcomes.	Given the interdependence among the functions, there is a need for corresponding multi-factorial interventions. Future research should focus on understanding the relationships between various functions and PSFs and their impact on hospital discharge practices and outcomes.	-
Nishi, Maeda & Babazono (2017)	Regional inter-provider care-planning fee	LOS, total charge	With the coordinated care group in the present study, we did not observe lower indices of health care resource utilization other than LOS in acute care. A payment system for care coordination is inappropriate.	Health care system reform is necessary to improve care continuity across multiple health care institutions in Japan. Payments should not be made separately to individual institutions and without an evaluation system.	+/-
Nolan (2011)	Eligibility for free primary care	Avoidable hospitalizations	Avoidable hospitalizations for the over 70s did declined but it also declined for the under 70s, meaning that a significant difference-in-difference effect could not be identified.	Information not provided	+/-
Pizer & Gardner (2011)	Fragmented financing	Hospitalizations for ambulatory care sensitive conditions	Fragmented financing has a statistically significant effect on the probability of ACSC hospitalization, the magnitude of this effect is relatively large.	Policy initiatives to reduce fragmented financing are warranted.	+
Yu, Tsai & Kung (2014)	P4P	Emergency department visits	The risk of emergency departments visits for diabetic hypoglycemia was higher in P4P-enroled patients. Emergency visits due to diabetic hypoglycemia after P4P were significantly higher than those before P4P.	Efforts should be made to increase health education or to improve monitoring of patients when caring for P4P patients.	+/-

APPENDICES C.
ADDITIONAL INFORMATION FOR CHAPTER 5

APPENDIX C1: COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

No. Item, topic	Guide Questions/Description	Reported on Page #
Domain 1: Research team and reflexivity		
Personal Characteristics		
1. Interviewer/facilitator	Which author/s conducted the interview or focus group?	5
2. Credentials	What were the researcher's credentials? E.g. PhD, MD	5
3. Occupation	What was their occupation at the time of the study?	5
4. Gender	Was the researcher male or female?	5
5. Experience and training	What experience or training did the researcher have?	5
Relationship with participants		
6. Relationship established	Was a relationship established prior to study commencement?	5
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	5
8. Interviewer characteristics	What characteristics were reported about the inter viewer/ facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	5
Domain 2: Study design		
Theoretical framework		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	4
Participant selection		
10. Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball	4
11. Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email	4
12. Sample size	How many participants were in the study?	5,6
13. Non-participation	How many people refused to participate or dropped out? Reasons?	4
Setting		
14. Setting of data collection	Where was the data collected? e.g. home, clinic, workplace	5
15. Presence of non-participants	Was anyone else present besides the participants and researchers?	5
16. Description of sample	What are the important characteristics of the sample? e.g. demographic data, date	5
Data collection		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	5
18. Repeat interviews	Were repeat inter views carried out? If yes, how many?	5

Continued.

No. Item, topic	Guide Questions/Description	Reported on Page #
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	6
20. Field notes	Were field notes made during and/or after the inter view or focus group?	6
21. Duration	What was the duration of the inter views or focus group?	6
22. Data saturation	Was data saturation discussed?	6
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	6
Domain 3: Analysis and findings		
Data analysis		
24. Number of data coders	How many data coders coded the data?	6
25. Description of the coding tree	Did authors provide a description of the coding tree?	Appendix
26. Derivation of themes	Were themes identified in advance or derived from the data?	6
27. Software	What software, if applicable, was used to manage the data?	6
28. Participant checking	Did participants provide feedback on the findings?	6
Reporting		
29. Quotations presented	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	7-15
30. Data and findings consistent	Was there consistency between the data presented and the findings?	6-15
31. Clarity of major themes	Were major themes clearly presented in the findings?	6-15
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	6-15

APPENDIX C2: Interview guide – German

Leistungsgeber/Zahler/Versicherer/Politiker
Alter
Beschäftigungsort
Land
Erfahrung mit der „temporären Pflege“

ORGANISATORISCHE ASPEKTE

Sind Sie der Meinung, dass es einen Zusammenhang zwischen der Art und Weise der Organisation der langfristigen Pflege und der Übergangsrichtung des Patienten gibt?

- Was für ein Zusammenhang ist das?
- Ist es so, dass ältere Personen mehr zu der Institutionalisierung neigen?

Sind Sie der Meinung, dass einen Zusammenhang zwischen den organisatorischen Aspekten und der Übergangspflege zwischen den Pflegestellen gibt?

- Können Sie organisatorische Aspekte nennen, welche einen Einfluss auf die Übergangspflege zwischen den Pflegestellen haben?
  - Haben Sie Erfahrungen gemacht, dass die Kommunikation zwischen den beanspruchten Berufsgruppen einen Einfluss auf die Übergangspflege zwischen den Pflegestellen hat?
    - Welchen Einfluss?
  - Haben Sie Erfahrungen gemacht, dass die Übermittlung von Informationen und Verantwortung für die Pflege einen Einfluss auf die Übergangspflege zwischen den Pflegestellen hat?
    - Welchen Einfluss?
  - Haben Sie Erfahrungen gemacht, dass die Koordinierung der Ressourcen (mit Beteiligung der Krankenschwester, Pharmazeuten, Leiter der Übergangspflege bzw. des Übergangsprogramms) einen Einfluss auf die Übergangspflege zwischen den Pflegestellen haben?
    - Welchen Einfluss?
  - Haben Sie Erfahrungen gemacht, dass die Schulung und Ausbildung des Personals einen Einfluss auf die Übergangspflege zwischen den Pflegestellen haben?
    - Welchen Einfluss?
  - Haben Sie Erfahrungen gemacht, dass E-Gesundheit, e-Health einen Einfluss auf die Übergangspflege zwischen den Pflegestellen hat?

- Welchen Einfluss?

- Haben Sie Erfahrungen gemacht, dass die Unterrichtung und Beteiligung des Patienten und seiner Familie einen Einfluss auf die Übergangspflege zwischen den Pflegestellen hat?
  - Welchen Einfluss?

  Bekommt Ihrer Meinung nach ein informeller Betreuer ausreichende (externe) Unterstützung beim Übergang des Patienten aus einer Pflegestelle in die andere (z.B. Krankenhaus-Haus)?

  Wer gewährleistet solche Unterstützung?
  Welche Unterstützung? (finanzielle Leistungen, Arbeitsmarktpolitik, Schulungen und psychologische Unterstützung)

- Haben Sie Erfahrungen gemacht, dass soziale Aspekte, wie Zugang zu den Mitarbeitern der Sozialbetreuung einen Einfluss auf die Übergangspflege zwischen den Pflegestellen haben?
  - Welchen Einfluss?

Können Sie andere wichtige organisatorische Aspekte nennen, die einen Einfluss auf die Übergangspolitik haben?

Sind Sie der Meinung, dass einige dieser organisatorischen Aspekte wichtiger als andere sind? Welche sind das?

- Warum sind Sie der Meinung, dass diese wichtiger sind als andere?

FINANZIELLE ASPEKTE

Sind Sie der Meinung, dass es einen Zusammenhang zwischen der Art und Weise der Finanzierung der langfristigen Pflege und der Übergangsrichtung des Patienten gibt?

- Was für ein Zusammenhang ist das?
- Ist es so, dass ältere Personen mehr zu der Institutionalisierung neigen?

Sind Sie der Meinung, dass einen Zusammenhang zwischen den finanziellen Aspekten und der Übergangspflege zwischen den Pflegestellen gibt?

- Können Sie finanzielle Aspekte bzw. Mechanismen nennen, welche einen Einfluss auf die Übergangspflege zwischen den Pflegestellen haben?

Können Sie aus Ihrer Erfahrung/Ihrer Meinung nach sagen, welchen Zusammenhang es zwischen der Art und Weise der Vergütung der Leistungsgeber und der Übergangspflege gibt?

- Welchen?
    - Sind Sie der Meinung, dass die Methoden der Vergütung der Leistungsgeber, denen die Aktivität zugrunde liegt, einen Einfluss auf die Übergangspflege haben können?
        - Wenn ja, welchen?

    - Sind Sie der Meinung, dass die Methoden der Vergütung der Leistungsgeber, denen die Qualität zugrunde liegt, einen Einfluss auf die Übergangspflege haben können?
        - Wenn ja, welchen?

Können Sie aus Ihrer Erfahrung/Ihrer Meinung nach sagen, welchen Zusammenhang es zwischen der Erhältlichkeit der finanziellen Prämien und der Übergangspflege gibt?

- Kannst du mehr dazu sagen?

Können Sie aus Ihrer Erfahrung/Ihrer Meinung nach sagen, welchen Zusammenhang es zwischen den Finanzstrafen und der Übergangspflege gibt?

- Kannst du mehr dazu sagen?

Können Sie andere wichtige finanzielle Aspekte nennen, die einen Einfluss auf die Übergangspflege haben?

Sind Sie der Meinung, dass einige dieser finanziellen Aspekte wichtiger als andere sind? Welche?

- Warum sind Sie der Meinung, dass diese wichtiger sind als andere?

Wie ist Ihrer Meinung nach optimale Übergangspflege? Ist die Übergangspflege älterer Patienten optimal nach dieser Definition?

Was sollte man Ihrer Meinung nach machen, um die Übergangspflege zwischen den Pflegestellen verbessern?

- Kennen Sie Lösungen, welche die Übergangspflege effizienter machen/machen könnten?

Möchten Sie noch etwas hinzufügen?

APPENDIX C3: Interview guide – English

Provider / Payer, insurer / Policymaker
Age
Workplace
Country
Experience with "care transitions"

ORGANIZATIONAL ASPECTS

Do you think that there is relation between how long-term care is organized and the direction of the transition?

- What kind of relation is there?
- Is there relation that older adults are more likely to be institutionalized?

Do you think that there is a relation between the organizational aspects and care transitions between the settings?

- Can you name any organizational aspects that have an impact on care transitions between the settings?
  - In your opinion/experience does the communication among involved professional groups have an impact on care transitions between the settings?
    - How does it impact?
  - In your opinion/experience does the transfer of information and care responsibility of the patients have an impact on care transitions between the settings?
    - How does it impact?
  - In your opinion/experience does the coordination of resources (involving nurses, pharmacists, transition care manager or program) have an impact on care transitions between the settings?
    - How does it impact?
  - In your opinion/experience does the training and education of staff have an impact on care transitions between the settings?
    - How does it impact?
  - In your opinion/experience does the e-health have an impact on care transitions between the settings?
    - How does it impact?
  - In your opinion/experience does the education and involvement of the patient and family have an impact on care transitions between the

settings?

- How does it impact?

  In your opinion does informal caregiver receive sufficient support during the care transition? (e.g. from hospital to home)

  Who provides the support?

  What kind of support? (compensation, labor market policy, provision of trainings and psychological support)

- In your opinion/experience does the social aspects (social care) (availability of social care worker) have an impact on care transitions between the settings?
  - How?

Can you think of any other important aspects that affect care transition?

Do you think that some of these organizational aspects are more important than others? Could you name any?

- Could you tell why do you think they are more important than others?

FINANCIAL ASPECTS

Do you think that there is relation between how long-term care is financed and the direction of the transition?

- What kind of relation is there?
- Is there relation that older adults are more likely to be institutionalized?

Do you think that there is a relation between the financial aspects and care transitions between the settings?

- Do you think there is an impact of financial aspects on care transitions between the settings?
- Can you name any of the financial aspects or mechanisms that have an impact on care transition?

In your opinion/experience does the way providers are reimbursed have an impact on care transitions?

- How?
  - Do you think that activity-based payment methods could have an impact on care transitions?
    - If yes, how?
  - Do you think that value-based payments methods could have an impact on care transitions?
    - If yes, how?

In your opinion/experience what is the relation between the availability of financial rewards and care transitions?

- Can you say more about it?

In your opinion/experience what is the relation between the availability of financial penalties and care transitions?

- Can you say more about it?

Do you think that some of these financial aspects are more important than others? Could you name any?

- Why do you think they are more important?

What is in your opinion optimal care transition? Do you think that care transition of older patients is optimal according to that definition?

In your opinion what should be done in order to improve care transition between the settings?

- Can you think of any solutions to optimize care transitions?

Is there anything more you would like to add?

APPENDIX C4: Interview guide – Polish

Świadczeniodawca / Płatnik / Ubezpieczyciel / Polityk
Wiek
Miejsce zatrudnienia
Kraj
Doświadczenie z "opieką przejściową"

ASPEKTY ORGANIZACYJNE

Czy uważa Pan/Pani, że istnieje związek między sposobem organizacji opieki długoterminowej a kierunkiem przejścia pacjenta?

- Jaki to jest związek?
- Czy istnieje powiązanie, że osoby starsze są bardziej skłonne np. do instytucjonalizacji?

Czy uważa Pan/Pani, że istnieje związek między aspektami organizacyjnymi a opieką przejściową między placówkami?

- Czy może Pan/Pani wymienić jakiekolwiek aspekty organizacyjne, które mają wpływ na opiekę przejściową między placówkami?
  - Czy z Pana/Pani doświadczenia wynika, że komunikacja między zaangażowanymi grupami zawodowymi ma wpływ na opiekę przejściową między placówkami?
    - Jaki ma wpływ i w jaki sposób wpływa?
  - Czy z Pana/Pani doświadczenia wynika, że przekazywanie informacji i odpowiedzialności za opiekę ma wpływ na opiekę przejściową między placówkami?
    - Jaki ma wpływ i w jaki sposób wpływa?
  - Czy z Pana/Pani doświadczenia wynika, że koordynacja zasobów (z udziałem pielęgniarek, farmaceutów, kierownika opieki przejściowej lub programu)
    ma wpływ na opiekę przejściową między placówkami?
    - Jaki ma wpływ i w jaki sposób wpływa?
  - Czy z Pana/Pani doświadczenia wynika, że szkolenie i kształcenie personelu
    ma wpływ na opiekę przejściową między placówkami?
    - Jaki ma wpływ i w jaki sposób wpływa?
  - Czy z Pana/Pani doświadczenia wynika, że e-zdrowie ma wpływ na opiekę przejściową między placówkami?

- Jaki ma wpływ i w jaki sposób wpływa?

- Czy z Pana/Pani doświadczenia wynika, że edukacja i zaangażowanie pacjenta i jego rodziny ma wpływ na opiekę przejściową między placówkami?
  - Jaki ma wpływ i w jaki sposób wpływa?

  Czy Pani/Pana zdaniem nieformalny opiekun otrzymuje wystarczające wsparcie podczas przejścia pacjenta z jednego ośrodka opieki do drugiego (np. szpital-dom)?

  - Kto zapewnia wsparcie?
  - Jakie wsparcie? (świadczenia finansowe, polityka rynku pracy, szkolenia i wsparcie psychologiczne)

- Czy z Pana/Pani doświadczenia wynika, że aspekty społeczne takie jak dostępność pracowników opieki społecznej mają wpływ na opiekę przejściową między placówkami?
  - Jaki mają wpływ i w jaki sposób wpływają?

Czy może Pan/Pani wymienić inne ważne aspekty organizacyjne, które mają wpływ na opiekę przejściową?

Czy uważa Pan/Pani, że niektóre z tych aspektów organizacyjnych są ważniejsze od innych? Czy mógłby/mogłaby Pan/Pani wymienić które?

- Dlaczego uważa Pan/Pani, że są one ważniejsze niż inne?

ASPEKTY FINANSOWE

Czy uważa Pan/Pani, że istnieje związek między sposobem finansowania opieki długoterminowej a kierunkiem przejścia pacjenta?

- Jaki to jest związek?
- Czy uważa Pan/Pani, że istnieje powiązanie, iż osoby starsze są bardziej skłonne np. do instytucjonalizacji?

A

Czy uważa Pan/Pani, że istnieje związek między aspektami finansowymi a opieką przejściową między placówkami?

- Czy może Pan/Pani wymienić jakiekolwiek aspekty lub mechanizmy finansowe, które mają wpływ na opiekę przejściową?

Opierając się na Pana/Pani doświadczeniu / opinii, jaki jest związek między sposobem wynagradzania świadczeniodawców a opieką przejściową?

- Jak?
    - Czy uważa Pan/Pani, że metody wynagradzania świadczeniodawców oparte na aktywności mogą mieć wpływ na opiekę przejściową?
        - Jeśli tak, to jak?

    - Czy uważa Pan/Pani, że metody wynagradzania świadczeniodawców oparte na jakości mogą mieć wpływ na opiekę przejściową?
        - Jeśli tak, to jak?

Opierając się na Pana/Pani doświadczeniu / opinii, jaki jest związek pomiędzy dostępnością nagród finansowych a opieką przejściową?

Opierając się Pana/Pani doświadczeniu/opinii, jaki jest związek pomiędzy dostępnością kar finansowych a opieką przejściową?

Czy może Pan/Pani wymienić inne ważne finansowe aspekty, które mają wpływ na opiekę przejściową?

Czy uważa Pan/Pani, że niektóre z tych aspektów finansowych są ważniejsze od innych? Czy mógłby/mogłaby Pan/Pani wymienić które?
    - Dlaczego uważa Pan/Pani, że są one ważniejsze niż inne?

Jaka jest Pana/Pani zdaniem optymalna opieka przejściowa? Czy uważasz, że opieka przejściowa nad starszymi pacjentami jest optymalna zgodnie z tą definicją?
Co Pana/Pani zdaniem należy zrobić, aby poprawić opiekę przejściową między placówkami?
    - Czy zna Pan/Pani jakieś rozwiązania, które usprawnią/mogłyby usprawnić opiekę przejściową?

Czy jest coś więcej, co chciałby/chciałaby Pan/Pani dodać?

APPENDIX C5: Key findings – Germany

Semi-structured interviews with 8 key country informants enabled us to identify important sub-themes for organizational and financial themes affecting care transitions of older adults in Germany. We interviewed participants representing following: providers - 1 from primary care, 2 from hospital, 3 from long-term care, and 2 insurers/payers.

Majority of the informants agreed that care transitions in the German long-term care system are not optimal, and still, a lot has to be done if Germany is to deliver safe and seamless care transitions for older adults. Participants argued that broader organizational and financial aspects might affect not only the quality-of-care transition but also the direction. Below we present different organizational and financial aspects that affect care transition in the German long-term care system.

Organizational challenges

Country informants in Germany agreed that organizational aspects and especially communication, transfer of information, coordination of resources, education and involvement of the patient and informal caregivers might have an immense impact on care transitions of older adults. In their view, there is a room for improvement regarding many organizational aspects.

Coordination of resources,
Sub-theme 1: Communication

According to country informants, there is a strong need for good communication between different professionals and sectors involved in care process. Participants suggested that especially availability of regular round-table meetings with professionals from different settings and sectors might lead to optimization of care transitions. Moreover, they argued that knowing involved professionals and institutions personally might ease communication. Participants also suggested that there is a need for a central actor that would facilitate communication among involved groups about the availability of LTC facilities.

> '...I find it difficult that there are so many parallel structures...so we have a wide variety of providers in the region...so this parallel means that there is somehow no central path that you can take, but you can only try it in very, very many places' (provider in a hospital 2)

According to country informants, there is not only a need for personal communication with the patients and family, but also for the communication of 3 sides – the patient,

sending and receiving setting. Participants declared that current communication with the patients and their caregivers is very limited. Furthermore, they agreed that there is a need for better communication between the settings about patients' needs and planned transitions of vulnerable patients. Participants were in favor of on-time, verbal, detailed and electronic communication. On the other hand, using outdated methods (e.g., on paper) might be a barrier to good communication. One participant also suggested that the use of professional language/formal language that is incomprehensible for other groups might lead to miscommunication and lack of understanding among involved groups.

Sub-theme 2: transfer of information

Majority of the country informants agreed that the current transfer of information between different professionals involved in care transitions is suboptimal and that there is room for improvement. According to half of the participants, transferred information is often non-specific, incomplete and/or delayed.

> '…what mostly comes across is a piece of paper that says name…and that's usually it. Nothing is settled there. What is the family member's name? What does a man need? What does the person have? Everything comes days later. Always.' (provider in long-term care 1)

However, it also happens that the information is never delivered. As a result, informants suggested that the use of a standardized protocol for information exchange could improve the transfer of information between providers. On the other hand, they declared that even though some parts of Germany introduced standardized protocol, it is not used in routine care. Furthermore, participants argued that not only what kind of information is transferred is important, but also how the information is transferred. According to informants, outdated methods (on paper, fax) of information exchange should be replaced with electronic health information exchange, especially electronic patient records.

> 'But if you look at the documentation in nursing homes, but also in hospitals, it's still very much paper based. So which you would not expect in the 21st century, I guess, but it's mostly or very often in files' (provider in the hospital 1)

> 'Ideally, of course, you want to have it (information) in an electronic patient file' (provider in a hospital 1)

Another factor that might hamper information exchange among professionals and

organizations refers to the data protection regulations in Germany.

> '…it's all data protection issues, of course, I know that too' (provider in long-term care 1)

Sub-theme 3: Availability & coordination of resources

More than half of German informants agreed that there is a need for good interprofessional and intersectoral collaboration among all involved in the care process. Nonetheless, first structures and routines for intersectoral and interprofessional collaboration need to be adapted, and there needs to be support from the management. Moreover, according to participants, professionals and organizations should have clearly defined responsibilities, meet on a regular basis and be aware of how other settings work. One participant suggested that unclear responsibilities of the professionals and limited use of case conferences often lead to suboptimal transitions in the German long-term care system.

> '…the responsibilities of the professions must be clear…if this is not clarified as quite frequently in Germany, then you have the phenomenon that everyone wants to be on the safe side. And then that means for the nurses they rather have the residents transferred to the hospital rather than have a look at them…' (provider in a hospital 1)

> '…and of course, there should be things like case conferences, which we… know about, but which we don't do really' (providers in a hospital 1)

Informants also argued that the presence of case management or case manager could lead to optimization of care transitions. They suggested that case manager (e.g., advanced practice nurse) role should be to address social aspects and to prepare the care plan while optimizing care for the patient. They also argued that care planning, transition planning and carrying out patients' needs assessment are crucial to ensure a smooth care transition process. Nevertheless, all these efforts would be for nothing if LTC infrastructure was incapable of addressing all the care needs. According to informants in Germany, limited availability of staff, especially in LTC and limited availability of places in LTC facilities might have an impact on care transitions. Furthermore, lack of coordination between health and long-term care providers, separate financing streams for health care and long-term care, certain normative and legal regulations, and organizational protocols that are inflexible to be adapted to the patient's situation might also negatively affect care transitions. On the other hand, legal regulations might also have a positive effect on care transitions. This refers specifically to regulations regarding discharge

planning and loosened regulations regarding hiring (health) care personnel from abroad. Besides that, participants suggested that there is a need for stronger involvement of primary care and care assistants during the transition process. Moreover, informants in Germany argued that insurance companies might also play an important role in planning and organizing care transitions.

> 'What I also find important is the role of the health insurance company… they (insurance company) just have someone on site for the region who knows the structures very well. Knows many facility managers personally and who plays a major role in many placements. So the insurance company is not always the opponent, but also often a player who really helps to find the right thing for the patient' (provider in a hospital 2)

Sub-theme 4: Training and education of staff

According to participants, even though in some parts of the German system, professionals are well-trained and educated to provide transitional care, there is still room for improvement. Currently, to be a nurse, individuals need to follow comprehensive education programs that positively impact their competencies.

> 'So the training of the nursing staff, who learn for three years, is very extensive here, with a lot of theoretical hours, but also a lot of practical hours […] anyone who is now doing nursing training in Germany […] have to get to know the various areas (providers) during their training and also do practical training' (insurer/payer 1)

Participants argued that the added value of the education program is that individuals get to know how different providers operate. Country informants argued that staff knowledge about how the care is organized in other settings is crucial for smooth care transitions. Additionally, half of participants agreed that professionals involved in older adults' care transitions should be well-trained and have core competencies. For this reason, staff needs to follow mandatory training courses.

> 'We have mandatory training courses that we complete every year, some - every two years' (provider in long-term care 3)

Besides that, some employers offer additional training to the staff. As a result, some staff is well trained to provide transitional care to older adults, according to some informants.

> 'The hospitals are very, very well set up in terms of education' (provider in long-term care 2)

Nonetheless, few participants argued that still more attention should be paid to the training regarding communication/transfer of information. Moreover, informants proposed that there is a need for increasing awareness of the staff regarding transitional care, as currently there are no such training. Additionally, some participants stated that staff lack competencies to assess patients' needs and to tailor care, and sometimes is not trained enough to perform activities independently.

> 'I think it would be important for the medical assistants in the family doctor's practice to be much more involved, much more knowledge, maybe trained' (provider in long-term care 3)

At last, availability of one-year training for care assistants providing all non-medical services was seen by one informant as a facilitator that could improve transitional care of older adults by increasing the availability of LTC staff.

Sub-theme 5: Education and involvement of the patient and/or caregiver
Half of informants agreed on the importance of providing information and education to the patient and the caregiver. Few participants stated that such education and information are already provided in the German long-term care system.

> 'We have had training courses for relatives for many years, especially in the field of dementia. I regularly do courses there twice a year' (provider in a hospital 2)

> 'We have a great many training courses that we can offer to family caregivers. Yes, of course, this allows for longer care at home in a domestic setting' (provider in long-term care, SS)

Additionally, they declared that patients and their caregivers have access not only to education and information regarding medical aspects but also administrative and organizational. Information and courses are provided in the care advice centers that are widely available. Nonetheless, information and education are also provided by the providers, for instance, in the form of regular meetings with the patients and their families as one participant suggested. On the other hand, according to informants in Germany, one of the major barriers that could affect care transitions is the fact that patients' and caregivers' needs, and preferences are not considered.

> '…because the patient's needs are not considered. So there are other mechanisms behind the decisions, whether a patient is transitioned or not' (provider in primary care 1)

Moreover, participants argued that patients and their caregivers are often not involved in the decision-making process. One informant added to that by arguing that caregivers' in Germany tend to be poorly involved and informed and therefore, might have limited knowledge on how to care for or assist older adults. For this reason, some participants stated that it is crucial to involve patients and caregivers in the care process.

> '…every person is self-determined, i.e. he has a fundamental right to be involved in everything that concerns him and to be able to make decisions about it' (insurer/payer 2)

Sub-theme 6: Telemedicine and e-Health

Nearly all informants agreed that the use of telemedicine and e-Health is very limited in Germany.

> 'we are still in the real beginning in Germany with the implementation of e-Health' (provider in primary care 1)

One participant suggested that limited use of telemedicine might negatively affect care transitions by, for example, delaying patients' discharge to home. In their view, telemedicine and e-Health should be utilized more as it has the potential to optimize care transitions by, for instance, improving the transfer of information. Specifically, half of the participants expressed the need for electronic patient records for information access and transfer.

> 'I have to say, if we had a digital transfer of patient files. That would make it a lot easier' (provider in long-term care 2)

Moreover, some informants also acknowledged the important role of video consultations and tele-nursing and health monitoring devices.

> 'if you talk about video consultations […] this is a very good option to keep them at home, to keep them away from the risks that they have in hospital' (provider in a hospital 2)

One participant declared that video consultations are slowly being introduced in

Germany. Nevertheless, two informants argued that some older adults, especially those cognitively impaired, might lack knowledge on how to use telemedicine and/or e-Health. Additionally, they suggested that some health professionals might be reluctant to use telemedicine due to the heavy workload in their clinics.

Sub-theme 7: Social care

According to the informants, social care institutions play an important role in optimizing care transitions in Germany by helping the patient and/or caregiver to cover the LTC costs if they are incapable of paying.

> 'The social welfare office always kicks in when the patient can no longer afford to pay (for LTC)' (insurer/payer 1)

They suggested that social care institutions help to cover the costs of LTC without any issues. On the contrary, one participant declared that social care institutions are sometimes unwilling to cover the LTC costs, especially if they rise. Moreover, informants had unambiguous opinions regarding the role of social care workers in inpatient settings. Some of them argued that social care workers play an important role in discharge management, for example, by preparing the receiving setting. At the same time, others had mixed feelings regarding their involvement in discharge planning.

> 'I am not aware of convincing literature that certain structures or that we need social care workers for...discharge planning' (provider in primary care 1)

One participant added to that by arguing that having the separate role of social care worker might lead to diffusion of responsibilities.

> '…and what I sometimes find, especially in hospitals, is that there is a diffusion of responsibility' (provider in a hospital 1)

Moreover, the role of social care workers in outpatient settings is very limited, as suggested by one informant.

> 'So in the in the in the outpatient setting, they have no impact I would say in Germany' (provider in primary care 1)

Furthermore, participants argued that they are difficulties in communicating with social care institutions experienced not only by the providers but also by

the patients and their caregivers. Nonetheless, according to informants, it is very important to involve social care institutions/workers in interprofessional and intersectoral meetings.

> '…and if we have successful case conferences, then of course, it's very important to have social workers there' (provider in a hospital 1)

One participant stated that social care workers are already involved in regular meetings with providers.

Sub-theme 8: Supporting informal caregivers

Nearly all informants in Germany agreed that there is vast availability of training courses for informal caregivers.

> 'We have great many training courses that we can offer to family caregivers' (provider in long term care 2)

Moreover, they reported also that informal caregivers have access to different information centers providing advice. Nonetheless, in their opinion, sometimes these courses and information centers are not attended by informal caregivers. Furthermore, informants argued that informal caregivers are neither sufficiently involved and informed, nor receive sufficient support during the care transition.

> 'So the involvement of informal carers or relatives, in general, is one of the most negative things I experience here […] but we tend rather have them (informal caregivers) not informed […] and the avoidance of unnecessary or maybe too late transitions also depends on what they know' (provider in a hospital 2)

One participant argued that family's determination might also limit the amount of support and information they receive. On the other hand, informants suggested that informal caregivers can access available respite care services, receive financial compensation for providing care and get a pension covered by the insurer. Nonetheless, it is essential to provide information regarding institutions and professionals that offer such help and respite care, as one participant suggested. Additionally, some informants stated that there is a need to increase the budget for respite care so that caregivers might take more days off to rest and, thus, continue providing care for longer.

> 'I think this should be expanded in order to offer more relief to the caring relatives' (provider in long-term care 2)

At last, participants argued that there is a need for assessment of informal caregivers' needs and for provision of training to caregivers teaching them how to take care of themselves since they currently receive limited psychological support.

Financial challenges

The knowledge of some participants regarding financial aspects was limited and for this reason, some informants were unfamiliar with the impact of reimbursement, rewards and penalties on care transition. Nevertheless, informants in Germany agreed that particularly reimbursement-related factors might have an immense impact on the care transition of older adults.

Sub-theme 9: Reimbursement

The role of reimbursement and its impact on care transition was one of the most discussed subjects among German informants. Nearly all participants agreed that out-of-pocket payments are one of the most important factors affecting the care transitions of older adults in Germany.

> 'The personal contribution that the person in need of care has to make is often decisive here' (insurer/payer 2)

They argued that patients' and caregivers' possibility to access LTC might be restricted due to their inability or unwillingness to cover high out-of-pocket costs.

> 'And it's an argument that you can't go into a nursing home because the relatives have to pay for it themselves in the end through social insurance if your own assets are not sufficient' (provider in long-term care 1)

Fortunately, in such situations when patients and their caregivers are unable to pay, social care institutions step in to help to cover the costs of LTC placement, as stated by the informants.

> 'And when the funds have been used up [...] we have to contact the social welfare offices [...] luckily, they will step in and assume the costs of inpatient care. (provider in long-term care 2)

On the other hand, one participant suggested that social care institutions are

sometimes unwilling or hesitant to pay to support LTC placements. For this reason, increasing public funding for LTC could help to reduce out-of-pocket payments, and as a result, lead to the optimization of care transitions, as stated by one informant. Furthermore, informants argued also that lack of reimbursement for interprofessional collaboration/intersectoral care/transitional care might negatively affect care transitions. Besides that, informants discussed different payment mechanisms and their impact on care transition. In their opinion, payments per-diem in Germany might lead to suboptimal care transitions by inclining providers to reduce staff and admit healthier patients (cream-skimming).

> 'Flat-rate systems lead to a certain distortion here' (insurer/payer 2)

Moreover, one participant blamed current DRG reimbursements in hospitals for shortening the length of stay without justified cause and thus, leading to suboptimal care transitions.

> '…we often see patients being discharged from the hospital too quickly with the message that the patient is cured or that we can no longer expect any improvement but, in our opinion, a hospital stay for 2-4 days would have done the patient good' (provider in long-term care 2)

Besides that, informants argued that activity-based payments might result, for instance, in supplier-induced demand and ultimately negatively affect care transitions. Value-based payment methods were also questioned by the participants, and the difficulties in measuring the quality of care were acknowledged. One of the informants was in favor of evidence-based reimbursements and simply - reimbursing what has proven to be effective.

> '…one of my wishes is that reimbursement mechanisms better follow... the evidence about what works for patients' (provider in primary care 1)

Another mentioned that to optimize care transitions and to reduce barriers between the settings - different settings should be financed by single-payer.

> 'if the financing is one hand, then you have fewer barriers between the settings. For example, you have less interest, financial interests and… and probably have more…more time to plan transitions' (provider in a hospital 1)

At last, some informants argued that current reimbursement rates for LTC facilities and salaries for staff are sufficient and satisfactory, while others questioned the insufficient reimbursement levels for the care provided. According to their opinion, additional mechanisms, such as lump sums, should be introduced to compensate for variability in incurred costs. Lump sum payments should also be introduced for the transition period before patients' disability score is estimated since, according to informants, delays in providing disability scores influence providers' reimbursement and thus might lead to suboptimal care transitions.

> 'For example, if we are offered a patient by the hospital who has not yet been assigned a degree of care [...] then we often refrain from admitting this patient' (provider in long-term care 2)

At last, participants suggested that availability of LTC insurance, reimbursement of video consultations and training for informal caregivers could result in the optimization of care transitions.

Sub-theme 10: Rewards

Some of the answers provided by the informants on this theme were vague or incomplete, as some of participants had limited knowledge regarding rewards.

> 'I don't know, actually so [...] I don't think I can make a good statement on this. Sorry' (provider in a hospital 2)

Nonetheless, some informants argued that there are no rewards for providers in the German health and social system. Moreover, they rather had mixed feelings or even felt hesitant about the use of rewards.

> 'I think I'm not convinced that these (rewards) are the driving factors.' (provider in primary care 1)

On the other hand, some participants argued that rewards might potentially improve care transitions or stimulate practices. However, they were unable to explain how it could be achieved. One informant stated that increasing salaries for the staff would be better stimulus than rewards. Furthermore, while discussing the role of rewards and their impact on care transitions, some participants raised an issue of measuring the quality of care and thus, appointing those eligible for the reward. Besides that, informants also questioned whether rewards are effective in the long term and pinpointed the problem of fraud where providers try to 'cheat' the system by 'pretending' that criteria are met.

> 'What I frequently see in the system is that… the system is usually smarter than the criteria so then even the ones who don't get it right now the criteria, and they at least pretend to get it right' (provider in a hospital 1)

Sub-theme 11: Penalties

The issues raised within the theme penalties were to some extend similar to those of rewards. According to German informants, penalties are not available in the German health and social system. Their opinions regarding the use of penalties are rather diverse. Some participants expressed their mixed feelings or even hesitancy about the use of penalties, while others consider penalties as an opportunity to raise awareness about the problem or punish providers for different kinds of abuse, misuse, and abnormalities.

> 'I would be happy if you could get the money back for the mistake and a penalty on top of that' (insurer/payer 1)

Nonetheless, one informant argued that penalties on their own are insufficient measures. They should be constructive and offer solutions. Besides that, one participant argued that too minor penalties might not have the desired effect.

> 'I think it's a it's a matter of the opportunity cost […] because one question is how much are those affected by the penalties that will be enacted?' (provider in primary care 1)

At last, informants discussed issues related to measuring quality of care and appointing a responsible party if something goes wrong.

> 'how can you really prove that a hospital released the patient too early? I imagine that's very difficult' (provider in long-term care 2)

APPENDIX C6: Key findings – The Netherlands

Semi-structured interviews with 8 key country informants enabled us to identify important sub-themes for organizational and financial themes affecting care transitions of older adults in the Netherlands. We interviewed following participants: providers - 1 from primary care, 2 from hospital, 4 from long-term care, and 1 insurer/payer.

Similarly, to Poland and Germany, majority of the experts agreed that currently, care transitions in the Dutch long-term care system are not optimal and there is a room for improvement. Participants argued that broader organizational and financial aspects might affect not only the quality of care transition but also the direction. Below we present different organizational and financial aspects that affect care transition in the Dutch long-term care system.

Organizational challenges

Country informants in the Netherlands agreed that organizational aspects, particularly, communication and transfer of information have an immense impact on care transition of older adults. In their view, current communication and transfer of information is not optimal and there is still a lot to be improved if the Netherlands is to deliver safe and seamless care transitions for older adults.

Sub-theme 1: Communication

According to majority of experts, good interprofessional/intersectoral communication among all providers/institutions involved in the care process is essential for optimal care transitions. One participant argued that such communication should include discussion about the patients' medical, psychological, social and caring needs. Others suggested that current interprofessional/intersectoral communication, particularly between the hospital and home care, is not always optimal and that there is a need for improvement.

> 'But you have some communication issues between the care providers from the hospital to home' (provider in a hospital 2)

Participants suggested that especially the availability of multidisciplinary team meetings improve communication as it enables the professionals, organizations, and institutions to get to know each other, their roles and expertise. They argued that knowing professionals from other organizations/institutions personally might ease communication. One expert also suggested that organizations/institutions affiliated with hospitals communicate easier and better.

> 'We know that there are institutions that are part of the hospital and of course then the the, it's quite easy for...to transfer between the institutions and the communication is a lot better and it's easier' (insurer/payer 1)

Besides that, participants recognize the importance of good communication with the patient and informal caregiver.

> 'We take the time to have a conversation with them (the patients and informal caregivers) that they feel heard' (provider in long-term care 3)

One expert stated that professionals from long-term care facilities contact the person at home to get acquainted with the patient and their informal caregiver.

> 'The location (long-term care facility) will come to the person in the home situation so they can get acquainted' (provider in primary care 1)

Furthermore, district nurses might also visit and communicate in person with the staff at the LTC institutions as suggested by an expert. Moreover, professionals such as community nurse, transfer nurse and social care workers are responsible for communication with the LTC institutions or community care and arranging the place for the patient. One participant stated that current communication between home care and LTC care institutions is well organized.

> 'But I think the professionals communicate very well... So, for example, we have a patient in the home care and he needs to be admitted at one of the long term facilities, the nurses that are working in home care they contact the location' (provider in primary care 1)

Besides that, participants declared that the use of video calls, telephone calls and in general e-Health solutions might improve the communication not only between the providers but also with the informal caregivers.

> 'Being able to communicate with nurse via the app is quite helpful' (insurer/payer 1)

Sub-theme 2: Transfer of information

Transfer of information is another important organizational aspect that might affect care transition in long-term care systems. Dutch experts seem to agree that good transfer of information between the providers/institutions, the patient and

informal caregivers is essential for optimized care transition.

> 'I think it's important...Yeah. You need to have the right information' (provider in primary care 1)

According to their opinion, current transfer of information is not always optimal. One participant argued even that transfer of information is one of the biggest flaws in the Dutch system.

> 'That's (transfer of information) one of the big flaws, I think…' (provider in a hospital 1)

Participants argued that in some cases transferred information is lacking details, is incomplete and/or delayed.

> 'Information transfers are often lacking or too late or incomplete' (provider in a hospital 1)

They suggested that transferred information sometimes includes only one providers' perspective and does not contain psychological aspects. On the other hand, including not only medical but also psychological and social aspects was considered by Dutch participants as important factor in optimizing information exchange. According to experts not only quality of transferred information but also its timeliness are important factors for smooth care transitions. Besides that, participants declared that factors such as the availability of agreements between the providers/institutions and, in general, interprofessional collaboration could improve transfer of information.

> 'We know that there are institutions that are part of the hospital and of course then the the, it's quite easy for...to transfer between the institutions and the communication is a lot better and it's easier to give the information' (insurer/payer 1)

Experts suggested that it is also very important to have an integrated platform, for instance in form of electronic patient record, where information could be exchanged between the providers/institutions.

> 'If we can have electronic files about the patient, it does help because then it's easier for different caregivers to to find out about the the elderly and what its ailments are' (insurer/payer 1)

Some participants complained that currently there is lack of integrated system for information exchange and every provider has their own system. Moreover, in their view, standardized protocol for information exchange might improve transfer of information, and ultimately care transitions. Other factors that could have an impact on suboptimal transfer of information refer to the privacy laws that might restrict transfer of information between the institutions and lack of participation of the provider in digital solutions to transfer information.

> 'Sometimes it's just the the laws. So the the documents that we have, we're not allowed to transform from one institution to another' (insurer/payer 1)

Sub-theme 3: availability & coordination of resources

Majority of experts in the Netherlands seem to agree that there is a need for good interprofessional and intersectoral collaboration among all involved in the care process.

> 'I think it's important that all care providers are involved when talking about care transition' (provider in a hospital 2)

According to participants, providers/institutions tend to work in silos and there is lack of collaboration between them.

> 'At the moment in the Netherlands disciplines in community care are working pretty much solistic, so nurses, community nurses work for themselves, community physical therapists work for themselves and so on' (provider in a hospital 1)

Experts argued that support from the management is essential to improve interprofessional/intersectoral collaboration. Moreover, they suggested that the availability of agreements between the providers and institutions might also have a positive impact on interprofessional/intersectoral collaboration, and ultimately care transitions.

> 'Well, I think that for certain regions, where there are agreements between organizations, that definitely makes it easier to transfer a patient' (provider in long-term care 1)

Additionally, experts argued that there is a need for clear definition of responsibilities of professionals and organizations.

> 'If we don't say that's part of your job and you need to do that, it's yeah. I think it's not going to, going to work' (provider in primary care 1)

One participant stated that especially in large organizations responsibilities are sometimes not clear and thus, fragmentation of care might occur. Nevertheless, according to some experts, having multidisciplinary team meetings not only in the care setting but also in the community might reduce care fragmentation. One participant added to that by suggesting the importance of embedding multidisciplinary team meetings in routine care.

> 'So if it's routine care, having this interdisciplinary multidisciplinary collaboration [...] and so the routine of doing so is very important.' (provider in a hospital 1)

Currently, such interdisciplinary team meetings are taking place in their organization as stated by an expert.

> 'at the neurosurgery department, we have very strict organized multidisciplinary team meetings' (provider in a hospital 1)

Furthermore, according to one participant, transitional care interventions with the use of already existing care networks should be also embedded in routine care. Additionally, some of the transitional care interventions should consider home as a starting point so that care transitions are prevented from the first place. Besides that, experts pointed to the important role of different professionals in care transition, specifically, involvement of physiotherapists, transfer nurses, community nurses and care transition managers in the LTC settings. For instance, transfer nurse in the hospitals play an important role in care transition by preparing and communicating with the family and receiving setting.

> 'The transfer nurse is the one that talks to the family, to the relatives that investigates which...institution the elderly can go to, and also is the one that informs the institution' (insurer/payer 1)

On the other hand, participants discussed an important role of the LTC infrastructure and its impact on care transition. They argued that aspects such as the availability of staff, number and location of LTC institutions, and the availability of crisis beds in the nursing homes might impact care transitions. According to the participants, there is an increasing problem with the availability of staff and, in some cases, waiting time to access the next setting, particularly LTC institutions.

> 'It's difficult to have enough staff within the community care services at the moment' (provider in a hospital 1)

Another problem is obtaining Wlz indication that enables the patient to receive LTC either in either LTC institutions or care at home provided by the professionals. Experts suggested that criteria for obtaining Wlz indication is strict and not rational and that the waiting time for obtaining the indication might lead to suboptimal care transitions. As a result, participants argued about the importance of patients' assessment and the timely and right indication.

At last, experts also argued that performing advanced care planning, transition planning and making it accessible to all providers is crucial to ensure smooth care transition process.

> '[..] and with a good plan, not for only this transition, but further on to work [...] but there needs to be a plan for the whole trajectory of the patient' (provider in a hospital 1)

Sub-theme 4: training and education of staff

One expert believed that the staff in the Netherlands is well trained and educated and that there is no need for extra education or training.

> 'I think they know what is important. They don't need extra education to...to service a good transition. No, I don't think they need that' (provider in primary care 1)

On the other hand, some participants suggested that there is still a room for improvement.

They argued that some professionals lack basic knowledge about how the care is organized among other professions, and/or in other settings, and thus don't know about possible help or advice they could receive from each other.

> 'And my experience is that many caregivers, professionals don't even know what the other profession does or what's available' (provider in a hospital 1)

According to experts, it is important that professionals understand the work of other providers/institutions and look at care from different perspectives.

> 'But it is important to be able to look over your own profession and

to know what the other does, and also to to know how important that can be for your patient' (provider in a hospital 1)

To address this gap, experts suggested that staff should be made aware or even trained about work of different professionals, and other settings. Some participants argued that this could be achieved with the use of multidisciplinary team meetings.

'That could be so interactive like in, in an organized setting from an multidisciplinary team meeting that, that's, that's I think an important basis where also students and new colleagues enter and they get to know each other as well' (provider in a hospital 1)

Moreover, one expert suggested that some staff in the community settings have rather generic education and might have difficulty in dealing with complex patients, for instance, with specific diseases. Therefore, this participant suggested that educating the staff to recognize some disease specific vital signs is important for optimized care transitions. Besides that, some experts argued that education regarding transitional care should be an essential part of each education program.

'They need to know what is important to to do when there is a transition. So I think that's an essential part of each educational program' (provider in long-term care 1)

Furthermore, one expert argued that it is important to provide staff with additional trainings, for instance, on "soft landing" or regarding information exchange to improve quality of care transitions. At last, one expert argued that is it important to change the mindset of professionals from "taking over" care from the patient and informal caregiver to more interaction and support-based model where staff is educated and aware about the important role of providing support for self-management.

'We have to, we have to educate people at that because we want them to act different, because we want them to support and to to... how you say it...supporting...and to stimulate the people who are in demand of care to do things primarily themselves' (provider in long-term care 2)

Sub-theme 5: education and involvement of the patient and/or caregiver

Nearly all experts agreed that well-educated and informed patient and informal caregiver are one of the key components for optimized care transitions.

'[..] because if the client or the family are rightly informed, they know what is gonna happen and they know what they need to do' (provider in long-term care 3)

According to participants, to achieve it, it is necessary to provide multidimensional information/education to the patient and caregiver at an early stage. Currently, such information/education is already provided to the patient and their informal caregiver as indicated by some experts.

'We provide them (the patient and the informal caregiver) information in in in the early stage' (provider in long-term care 3)

Nevertheless, one expert argued that provided information/education might vary among providers/institutions.

'It really depends on on the hospital, or the nursing home or the doctor, whether he or she is willing to to inform' (insurer/payer 1)

Besides that, in their view, to optimize care transitions, it is important to consider patients' and caregivers' needs and preferences and to involve patient and caregiver in decision-making process.

'Optimal care transition is a care transition that's according to the needs and preferences of the patient' (provider in long-term care 1)

One expert claimed that current care is not always patient-centered.

„I think we're we're getting better at it, but we're not putting the client, as we call it, the patient, the elderly as focus point' (insurer/payer 1)

In addition, experts discussed an important role of informal caregivers and their involvement in the care process. According to their opinion, informal caregivers should be actively involved as they have the closest contact with the patient. Nonetheless, some participants argued that in some cases, informal caregivers are either not involved or insufficiently involved in the care process.

'But in general, as to my perspective…there's no structural way families are involved in most settings. And if they are not there at the moment, the physicians won't talk to them' (provider in a hospital 1)

This is particularly a problem when the patient moves to long-term care facility as suggested by one expert. Besides that, participants suggested that it is important not only to assess informal caregivers' ability to provide care, but also to address psychological needs of the patient and informal caregiver.

Sub-theme 6: telemedicine and e-Health

According to Dutch experts, e-Health and telemedicine plays an important role in optimizing care transitions of older adults.

> 'I think e-Health is very important' (provider in long-term care 2)

Nevertheless, one participant expressed their mixed feeling regarding the use of telemedicine and its effectiveness. One the other hand, participants argued about the important role of electronic devices to monitor patients at home and the use of telemedicine in self-management. According to them, telemedicine might help the patient to be more independent and improve communication, particularly with informal caregivers.

> 'So, for example, if they have the medication in the system, the nurses don't have to come every day to give them the medicine. They can do it themselves as long as they get a little alarm' (provider in primary care 1)

As an example, one expert discussed the use of medication dispenser by the patient at home, but there are also other examples of the use of telemedicine in the Dutch long-term care system. However, one participant argued that the use of telemedicine stops once the patient moves to the long-term care facility. Besides that, experts argued about the important role and the need for electronic patient record that would be accessible to all providers.

> 'if we can have electronic files about the patient, it does help because then it's easier for different caregivers to to find out about the the elderly and what its ailments are' (insurer/payer 1)

Nonetheless, to make the use of telemedicine and e-Health successful, participants suggested that it is important to provide resources in terms of devices etc. to the patient and the staff as they might not be able to afford it. Moreover, they argued that there is a need for personalizing telemedicine and e-Health solutions to better address the patient's needs. At last, experts argued that factors such as privacy issues, complexity of needs of older adult patients and lack of integration of the

providers in digital solutions might further limit the use of telemedicine and e-Health.

> 'Many of our frail elderly have multimorbidity and not only physical problems, but also functional limitations, psychological, social aspects. And I think that will be difficult to cover all of that with tele-health' (provider in long-term care 1)

Sub-theme 7: social care

According to few experts, social care workers play important role in care transitions.

> 'Well, in our organization, they (social care workers) are essential. They have a major role' (provider in long-term care 1)

Currently, social care workers are often engaged in preparing the transitions from the hospitals and home care to nursing home. Participants declared that their involvement in the hospitals and home care is important as social care workers are well informed about different organizations providing care. Moreover, experts suggested that social care workers have more time to look at aspects beyond medical care and thus, know the patients' needs and preferences, their environment and therefore, can assess the patients' situation holistically.

> '[…] social workers to have more time for the psychological guidance and…are also able, I think, to have more time to to go into it, to ask for in-depth information' (provider in a hospital 1)

> 'I think social workers have more view on what's really needed for the whole situation' (provider in a hospital 1)

Besides that, participants argued that social care workers play important role in providing support and assistance to the patient and informal caregiver and could potentially focus on patients activization through social engagement.

> 'So...social workers can be there very important because they can go to people or they can say, okay, I'm coming to you and we're going for a walk, or we're going to a society for a cup of coffee […] to take people out and to give them attention. And I think that that is also part of the solution […] to be less dependent and be more actively' (provider in long-term care 2)

Nonetheless, social care workers are not always involved in care transitions, as stated by one participant. Moreover, one expert claimed that social components are not addressed enough.

> 'So we do that, I think, but not enough' (provider in primary care 1)

Besides that, some participants questioned the role of social care workers and its' impact on care transition. According to them, the role of social care worker could be performed by other professionals, for instance, nurse. One expert argued that a district nurse knows the patient better than social care worker.

Sub-theme 8: supporting informal caregivers

There is no consensus among Dutch experts whether current support provided to informal caregivers is sufficient. On one hand, some participants argued that provided support is sufficient as professionals provide informal caregivers not only with information, guidance, and support but also, they bring them in contact with the right professionals. In addition, there are organizations that provide support to informal caregivers as stated by one expert.

> 'Yeah, we have to organize that (support for informal caregivers). I have just said, we working closely with an organization for informal caregivers. So that means that we give instruction, we guide, and we support them' (provider in long-term care 2)

On the other hand, some participants suggested that informal caregivers do not receive enough support during care transition, and that the support provided varies among organizations/institutions.

> 'I don't think so. I don't think, well, maybe depends on the the organization you're talking about' (provider in a hospital 1)

Moreover, one participant stated that there is lack of structural involvement of informal caregivers in most settings. Besides that, according to experts, it is essential to assess caregivers' needs and to provide psychological and social support they might need.

> '[...] but also because of the risk of caregiver burden. I think it's also important that the community nurse, for example [...] offer some psychological or social support' (provider in a hospital 2)

Financial challenges

The knowledge of some participants regarding financial aspects was limited and for this reason some experts were unfamiliar with either impact of reimbursement, rewards and penalties on care transition. Nevertheless, experts in the Netherlands seem to agree that particularly reimbursement related factors seem to have an immense impact on care transition of older adults.

Sub-theme 9: reimbursement

Some participants had limited knowledge regarding the impact of reimbursement on care transitions. Nevertheless, according to experts in the Netherlands, out-of-pocket payments for LTC might have an impact on care transitions of older adults. As a result, some patients might be reluctant, for instance, to move to institutions as it is more expensive for the patient than staying at home.

> 'Well, I think there might be situations where the the amount that patients have to pay...for care can be a problem' (provider in long-term care 1)

Moreover, some individuals might be hesitant in obtaining Wlz indication due to associated costs.

> 'Some clients don't think it's it's needed that they have an indication because they need to pay their own insurance about that indication. And that can be a big amount of money' (provider in long-term care 2)

Besides that, participants argued about the importance of sufficient reimbursement level of providers/institutions and the importance of satisfactory salaries for staff. In addition, some experts suggested that current reimbursement of the providers is not optimal and might result in financial loss for the organizations. This is particularly connected with the fixed reimbursement per patient according to indication, irrespective of variability in care needs. As a result, the organization receives the budget, and the nurses receive salary independent of volume of care provided. Low salaries for LTC staff, particularly community nurses, and low financial resources for LTC are another issue that were discussed by the experts that might indirectly affect care transitions.

> 'Well they, their (community nurses) wages are quite low, and so it's not really attractive to to work in…' (provider in a hospital 1)

Participants claimed that low financial resources for LTC have an implication on the availability of beds in LTC and staffing levels, and thus there is a need for increasing financing for LTC to enable smooth transition between the settings. Specifically, the reform in 2015 and cutting the budget for long-term care had an impact on number of LTC settings as stated by one participant. Besides that, experts spoke in favor of introducing reimbursement for interprofessional/intersectoral/transitional care collaboration. Currently, no such reimbursement exist. Participants argued that this is specifically the problem when providers from other settings (e.g. long-term care facility, home care) want to visit the patient in another setting (e.g. hospital)

> 'For example, we have a case managers dementie (dutch, dementia) […] They help people with dementia and when somebody that has dementia is located to a hospital or to a long-term facility, they wish to visit the patient in the other setting. But if they do that […] we cannot get a finance for that' (provider in primary care 1)

Experts spoke also about the role of activity- and value-based payments. Some participants had mixed feelings regarding the activity-based payments and value-based payments. According to their opinion, activity-based payments could have negative impact on care transition by, for instance, leading to overproduction. On the other hand, some experts suggested that value-based payment methods might have potential to improve quality of care while at the same time acknowledging the difficulties in measuring quality of care. According to one participant, extra quality reimbursement as a part of standard reimbursement has been introduced some time ago, however, the effects are still unclear. At last, experts argued about the importance of including community nurses and physiotherapist in basic insurance package. Currently, physiotherapy is not included in the basic insurance and that should change if the aim is to optimize care transitions as stated by one participant.

> 'And from the physical therapist what I told you this is not in the regular insurance. So patients have to pay more to have physical therapists in their insurance' (provider in a hospital 2)

Sub-theme 10: rewards

Dutch experts had mainly mixed or even negative feelings towards the use of financial rewards. According to their opinion, internal motivations of staff to provide good quality care is more important than financial rewards.

> 'I think that the motivation for transitional care could be internal because health care providers would like to provide good care to

patients' (provider in a hospital 2)

On the other hand, some participants argued that financial rewards at the organizational level could potentially improve quality of care transitions, for instance, by encouraging collaboration between professionals/providers/sectors. Moreover, one expert suggested that financial rewards could be potentially reinvested by the organization to further improve quality of care by investing for example in education of the staff. As a result, one participant claimed that rewarding organizations once a year based on their performance could be introduced as it would be additional stimulus for the organizations/institutions to improve collaboration.

> 'I think that would work if...for instance, on a yearly basis one one evaluates how care transfers were performed [...] and if we are able to reduce that waiting time and have smooth transfers and you get rewarded, yeah, that works of course, because then there's an impulse to to even more talk with with the rehabilitation centers on how to improve the transfers' (provider in a hospital 1)

Besides that, one participant argued that system of rewards was implemented in the Netherlands, however, in their view, financial rewards are short term stimulation and once the reward stops, the efforts to improve quality of care also stop.

> 'We did work with a reward system sometimes, but then when you stop the reward, it's...the extra stops as well. So it's, it's a short term gain' (insurer/payer 1)

In addition, expert claimed that having rewards for long-term is not possible as someone would need to pay for it. On the other hand, participant suggested that providing financial means to the providers so that they can improve competencies of the staff is better solution since the effect is maintained.

Sub-theme 11: penalties

Experts mainly had mixed feelings or even negative feelings regarding the use of penalties and its impact on care transitions of older adults. According to some participants, there are already penalties for the providers in the Dutch system, however, not for community nurses. One expert mentioned the availability of benchmarking and receiving less or more money based on providers' performance.

> 'I already think there are penalties because you have like a benchmark

> […] so we have to get some kind of a score to get good finance. So there already is a negative or a positive influence on the financial statement' (provider in primary care 1)

Another participant argued that penalties could be issued for inappropriate care, referral, bad communication, transfer of information or delayed care. On the other hand, some experts argued that the penalties do not work or that their effect is short-lived.

> 'It does help, but it only helps for a very short period of time and an incentive is just a year or two years, whatever, and then you get used to it and it doesn't work anymore' (insurer/payer 1)

Besides that, one participant suggested that penalties could be even harmful and negatively affect quality of care by further restraining the budgets for LTC providers.

> 'We, in the long term,long term care, the government says that we should punish...institutions that have poor quality of care. I'm dead against it, because if you take away the money, the quality will not improve. It will only get worse' (insurer/payer 1)

One expert mentioned also that the availability of penalties could have an impact on wider policy context while specifically referring to admission policy and admitting healthier patients as an example. Furthermore, participants discussed problems with measuring the quality of care, appointing responsible party if something goes wrong and providers that try to "cheat" the system just to avoid the penalty. At last, some participant argued that internal motivations of staff to provide good care is more important than financial penalties.

APPENDIX C7: Key findings – Poland

Semi-structured interviews with 7 key country informants enabled us to identify important sub-themes for organizational and financial themes affecting care transitions of older adults in Poland. We interviewed following participants: providers - 2 from primary care, 2 from hospital, 2 from long-term care, and 1 insurer/payer.

Most of the informants agreed that care transitions in the Polish long-term care system are not optimal and still, a lot has to be done if Poland is to deliver safe and seamless care transitions for older adults. Participants argued that broader organizational and financial aspects may affect not only the quality of care transition but also the direction. Below we present different organizational and financial aspects that affect care transition in the Polish long-term care system.

Organizational challenges

Country informants in Poland suggested that organizational aspects, particularly, communication, transfer of information and coordination of resources play an important role in care transitions of older adults. In their view, addressing all these aspects is necessary in order to optimize care transitions in the Polish long-term care system.

Sub-theme 1: Communication

All participants agreed that the communication between providers is very limited or even non-existent and that there is a need for better communication, particularly timely communication between sending-receiving settings. Moreover, participants suggested that providers do not use methods of direct communication and rarely communicate with each other in order to organize the care for the patient.

> 'There should be communication with the entity (organization) […] and the patient should immediately go to such a place, and this is not the case' (provider in long-term care 1)

> 'There is no single form of handing over a patient […] if patients call me earlier, they have everything taken care of when the patient comes home, and if they do not have such information, then he lies on a couch for several days and already has pressure ulcers' (provider in primary care 1)

According to participants, social care workers at the hospital are among the few that communicate with other providers (particularly long-term care facilities), and

therefore, their role is considered important among informants. Some respondents suggested that telephone calls shall be introduced to communicate with patients and/or caregivers and to monitor patients' health status.

> 'This system of communication with people, with seniors, well, the simplest is the telephone, right? Because as I said one during the conversation, you can tell if the patient is not confused or has memory problems […] or taken pills, well a simple set of questions' (insurer/payer 1)

Moreover, participants highlighted that communication of the providers with the patient and/or family is also very limited and needs to be improved as it leads to suboptimal care transitions.

> 'The ambulance arrived, discharged from the hospital and they came with the patient to the door […] the son knew that his mother was in the hospital, they did not let him know that his mother would be leaving […] and what did the ambulance have to do is to drive the woman back to the hospital, because they wouldn't leave her in the middle of the road' (provider in primary care 1)

Sub-theme 2: Transfer of information

Transfer of information is another important organizational aspect that may affect care transition in long-term care systems. Some participants declared that the transfer of information between providers is very limited, unstructured, and often incomplete, particularly between hospital and primary care. According to some, this could be the result of a lack of legal regulation regarding the transfer of information. Moreover, participants argued that the use of the available online platform to transfer information is very limited and rather outdated methods of transferring information, such as, on paper, are used. Additionally, participants expressed their concern regarding the responsibility of the patient to carry the information and deliver it to the following setting.

> 'He (patient/caregiver) gets an information card in the corridor and information that tomorrow at 3 pm we will discharge the patient and that's it.' (provider in long-term care 2)

Since the patient carries the information, providers lack direct contact with each other.

According to country informants, the problem with the transfer of information also takes place within the settings. Participants suggest that there is a need to improve information exchange between different providers so that the receiving setting can get prepared to address patients' needs.

> '….whether the patient is tube fed, has a catheter or no catheter. Such simple things, although it is true, would make things much easier, I think, for both parties. I also think that the transfer of information is very important, and yet it escapes somewhere and is practically not in our care, in our Polish health system' (provider in a hospital 2)

Transferred information should be structured, complete and timely. Some participants declared that nurses could be engaged to transfer the information between hospital and primary care. Between the hospital and LTC facilities social care worker is responsible for transferring the information. Informants consider the information transfer between these settings as optimal.

Sub-theme 3: Availability & coordination of resources

One of the most important, overarching factors that may affect care transition refers to the lack of regulations regarding care transitions, and therefore, their development should be a starting point. Moreover, participants expressed frustration with the limited availability of places in LTC and the limited availability of LTC staff to provide care and expressed the urgent need to address these problems to solve associated long waiting times to access LTC.

> 'For the patient to get to this long-term care (in-home long-term care provided by nurse), there is a waiting list, and this waiting list is sometimes several years, several months' (provider in primary care 1)

> 'Well, because if there is no free space, you can't move the patient, right? You can't discharge (from the hospital) because there's no place, and it's going to get worse and worse.' (insurer/payer 1)

Nonetheless, participants suggested also that the problem with the availability of the staff can also be found in different settings such as hospitals and social care institutions. Moreover, most participants suggested that a lack of coordination between the health and social sector and providers is a serious threat to care transitions. As a result, patients and/or caregivers may be forced to look for a nurse to provide care at home by themselves.

> 'And what does he (caregiver) do? Looking for a nurse by word of mouth. Well, this is not how the system is supposed to work as a word-of-mouth method' (provider in primary care 1)

To address the lack of coordination, most of the informants agreed that there is a need for a coordinator responsible for care transitions.

> 'Someone should connect this care from the beginning to the end, that is, propose various possible variants, choose the most optimal model together with the patient and the family and bring it to the end' (provider in long-term care 2)

On the other hand, some participants questioned the introduction of the care coordinator and its impact on the care transition. Moreover, there is a lack of agreement among participants on who should fulfil the role of care coordinator. Most of the participants suggested that the coordinator should be linked to the community and know the environment, providers, and the patient. As a result, some acknowledged the important role of primary care in care transitions. Nonetheless, according to a few participants, primary care settings are not fulfilling their role in monitoring and coordinating the patients and, thus, suggest stronger involvement of primary care. Contrary to that, some argued that primary care is too overburdened to be actively involved in coordination. At the same time, some informants emphasized the important role of nurses, care assistants, physiotherapists, charities, and volunteers. Particularly care assistants are found to be important actors for patients at home.

> 'We work a lot with the caregivers (care assistants). I can even say that my cooperation with care assistants is greater than with a doctor. Because the care assistant is simply with the patient all the time and if something happens to the patient and the patient cannot call, they call' (provider in primary care 1)

Sub-theme 4: Training and education of staff

According to participants, poor or even lack of education at the university regarding transitional care and the important role of nurses and their responsibilities could have an impact on care transition.

> 'Just as I think it is because they have nothing on this subject from academic education, and certainly such training (on transitional care) is very much needed' (provider in primary care 1)

> 'Why do we educate people at university ... and I am (the family nurse) supposed to clean the computer, take care of the paper in the printer, there are such tasks written on two whole pages and this is what students of family medicine learn' (provider in primary care 1)

Thus, strong emphasis on such education should be put. Besides, informants argued that there is a need for additional training for staff – health care staff, care coordinators (if available), care assistants etc. According to participants, nurses are not trained to provide the patient with information regarding care in other settings, and as a result, do not provide such information. Training could include providing education and information about good practices in transitional care and education regarding the organization of the LTC system.

> '...having knowledge himself (the personnel), he may be more willing to undertake educational activities for the benefit of the patient and the family, right? He (the personnel) will not be afraid of questions from his (patient) family, because he will be prepared for them, so not only will he know himself, but it will translate into these benefits for the family because he will undertake these educational activities. If someone doesn't know, then he withdraws from it, because he doesn't know' (provider in long-term care 2)

Participants argued that particularly face-to-face training instead of providing information leaflets would be more effective as staff could ask questions. Informants reported that currently, there are certain training options available not only for health care staff but also for the care assistants to provide care.

> 'Now there is a fashion for medical caregivers, so there are special trainings that are designed to take care of typical nursing patients, but not necessarily medical ones.' (provider in a hospital 1)

Sub-theme 5: Education and involvement of the patient and/or caregiver

Informants argued that patients and/or caregivers lack preparedness for discharge, which may lead to suboptimal care transitions.

> 'Either he (the patient) will hurt himself or someone will hurt him from the household, right, when he is poorly educated' (provider in primary care 1)

According to participants, patients and their caregivers tend to be left on their own

as there is no obligation from the personnel to provide information to the patient regarding care in other settings.

> 'Sometimes, unfortunately, the patient is discharged home [...] and is somewhat on his own. If he doesn't ask himself or the family doesn't ask, then unfortunately there is such a search later ... a bit in the dark' (provider in a hospital 2)

On the other hand, if information is provided, it is short and unstructured. This results in patients' and caregivers' feeling lost and in need of informational and educational support.

> 'They (patients and caregivers) don't know where to start and what to do' (provider in long-term care 2)

More than half of country informants agree that providing information and education to the patient and/or caregiver plays a crucial role as it affects patients' and caregivers' knowledge and involvement in care transitions. According to participants, education and information should be provided not only in the hospital but also at home and in primary care settings. Informants suggested that patients and/or caregivers should be provided with multidimensional information and education addressing all the patients' and/or caregivers' needs, including medical and non-medical. They further argued that some additional information and education could be provided with the use of leaflets, instructional videos or face-to-face training if needed.

Sub-theme 6: Telemedicine and e-Health

Telemedicine and e-Health are other important organizational aspects that may affect care transition in long-term care systems. Participants in their responses referred to the use of telemedicine and e-Health not only by health professionals but also by patients and/or caregivers. Participants suggested that the use of telemedicine and e-Health in Poland is rather limited. One informant argued that there is a lack of funding for telemedicine, and if there is funding, it is rather episodic. Nevertheless, more than half of the informants agreed that telemedicine and e-Health might be useful for remote patient monitoring of some patient groups. Moreover, according to participants, telephone consultations, and in general tele-information, are also useful tools to provide medical advice, referrals, and information to patients and their caregivers. Such tools enable the patients' and their caregivers to access the information instantly and remotely. Video consultations were also acknowledged by the informants as a useful tool for communicating with the patient and their careers.

> '…but it is also possible to use these visual systems, for example, from mobile phones and there to assess the patient's respiratory rate or check whether the device that has an automatic pressure measuring device puts it on correctly and measures the pressure well, these are I believe it actually makes a significant difference to improving care' (provider in primary care 2)

On the other hand, participants suggested that patients may avoid using telemedicine, or may lack knowledge on how to use it, and this may ultimately negatively impact their health. One informant argued that patients using telemedicine might be more neglected when compared with those using traditional medicine.

> '…patients prefer to avoid…as if they can't get to a doctor in normal stationary conditions […] so this telemedicine has a big impact, because in fact they are a bit neglected, I would say, in the medical sense and also in the nursing sense, unfortunately' (provider in a hospital 2)

Two participants raised a subject on the use of online platforms to transfer the patient's information between the providers, and in general, the importance of digitalization.

Sub-theme 7: Social care

More than half of country informants argued that social care institutions and social care workers, with their proactive engagement and involvement, play a very important role in care transitions. Participants highlighted that social care workers help not only to prepare the documents prior to discharge and to communicate with the LTC providers but also help to arrange the place of care for the patient in the next setting.

> '…social worker, workers…and they deal with the role of looking for a place in a specific center and institution where the patient needs. If it is a discharge home…then also help the family a bit and provide them with information on where they can look for help even later in the living environment' (provider in the hospital 1)

Thus, participants expressed the need to proactively engage social care workers to provide holistic care and support for older adults and their caregivers not only in the hospital setting but also at home. For patients at home, social care workers could be involved in supporting patients' daily functioning by delivering hot meals,

socializing or patient monitoring. According to an informant, such involvement may prevent unnecessary health care utilization. Nonetheless, some participants agreed that the number of social care workers is insufficient to address the patients' and caregivers' needs. Moreover, informants argued that social care workers often could not actively be involved in patient cases due to their tasks being limited to administrative activities and their limited competencies.

> 'There are social workers who should be dealing with such a transition of these patients. On the other hand, they... I guess there are too... there are certainly not enough of them and the scope of their competences, the scope of their activities is very limited' (provider in long-term care 1)

> 'The role of a social worker is practically limited to administrative activities. Unfortunately, this is bureaucracy, and it's cosmic' (provider in a hospital 1)

Additionally, some patients and caregivers do not know where to access help from social care institutions, as stated by the participant. Besides that, one informant suggested that there are some differences in the involvement of social care settings/workers, with some being unresponsive, disorganized, and always late.

> 'There are social welfare facilities that operate very dynamically, and this patient is taken care of, and there are those that need to be pressured…to take care of (the patient)' (provider in long-term care 2)

Sub-theme 8: Supporting informal caregivers

More than half of the informants in Poland agreed that the support provided to the informal caregivers in the settings is very limited or even non-existent, and thus, patients and their caregivers often need to search for support and help on their own. One informant suggested that even if such support is provided, it is often short and unstructured. According to participants, limited access to support may be the result of a lack of formal requirements for the providers to provide support to informal caregivers.

> 'If there is a good, kind, e.g., ward nurse, she will tell you at discharge, she will also instruct you…but in the system, well, it doesn't work. This is someone's goodwill, but it is not so obligatory that if there is a discharge card, there must be a workshop with the family, a meeting and a thorough discussion' (provider in long-term care 2)

Half of the informants agreed that informal caregivers should be provided with educational, information and instrumental support if needed. They also realize the need for a coordinator that could guide the patient and the carer throughout the entire process by providing medical, administrative, and legal support. Moreover, according to informants, the availability of training for informal caregivers and limited or even no access to respite care may also have an impact on the care transition of older adults.

Financial challenges

The knowledge of some participants regarding financial aspects was limited and for this reason, some informants were unfamiliar with the impact of reimbursement, rewards and penalties on care transition. Nevertheless, informants in Poland agreed that reimbursement-related factors particularly have an immense impact on the care transition of older adults.

Sub-theme 9: Reimbursement

The role of reimbursement and its impact on care transition was one of the most discussed subjects among Polish participants. According to more than half of the informants, out-of-pocket payments are one of the most important factors affecting care transitions by restricting patients and their caregivers from accessing LTC services.

> '…if it is financing the so-called commercial, then the patient simply cannot afford it and stays at home' (provider in primary care 1)

> '…we also observe the phenomenon that these families simply leave 70 percent of these benefits (patients' pension) for everyday functioning. They can't afford to donate 70 percent' (provider in long-term care 2)

Apart from that, some of the informants agreed that underestimated contracts, low LTC provider reimbursements, and low salaries for LTC staff might affect the availability of LTC places and services, and, thus care transitions. Additionally, participants suggested that fixed contracts with LTC facilities and a low number of contracts for LTC staff are other problems that need to be addressed. As a result, informants suggested the need for better estimation of the contracts for LTC facilities, increasing salaries and the number of contracts of LTC staff. According to participants - charities, volunteers, non-governmental organizations, and the European Union play an important role by providing financial support to LTC facilities and staff. Informants also discussed different ways of paying providers together with their advantages and disadvantages in relation to care transition. For

example, some argued that budgets could be used to pay for transitional care, while others stated that family nurses should receive additional reimbursement besides per capita payment for additional services provided. Moreover, participants also argued that the use of fee-for-service payments and, in general, activity-based payments might negatively affect care transitions. On the other hand, they spoke in favor of introduction of quality-based reimbursements while at the same time acknowledging the difficulties in measuring quality of care.

> 'It's not so simple to measure quality' (insurer/payer 1)

A few informants mentioned that in Poland there is no separate reimbursement for transitional care and that the introduction of 'satisfactory' reimbursement for the coordination/coordinator/transitional care could lead to optimization of care transitions. One participant stated that current reimbursement for care coordination in primary care is not satisfactory and does not motivate them to provide coordinated care. Moreover, some informants argued that there is a lack of stable governmental funding for telemedicine, training for caregivers, and care homes and that creating LTC wards next to the hospital may improve patient flow and decrease the total costs.

Sub-theme 10: Rewards

According to Polish informants, there are no rewards for providers in the Polish health and social system. Nonetheless, some participants argue that there is a need for the introduction of rewards as they may positively affect care transitions. Few informants suggested that not only the care coordinator, if available, should be eligible for rewards but also providers whose additional activities lead to the improvement of quality of care. On the other hand, some participants raised an issue of measuring quality of care, and thus, appointing those eligible for the reward. Additionally, one participant argued that health care professionals should not be motivated by rewards, nor penalties due to the nature of their work.

> "…and counting on a reward or a punishment - I think that in our professions, it's probably ... It's not an industrial plant that I will produce something more and then I will get a bonus for it or I will get a penalty because I did not complete the contract' (provider in primary care 1)

Sub-theme 11: Penalties

The subject of penalties has polarized the country informants. Some participants recognized the potential of using penalties, while others questioned their

implementation. Nevertheless, more than half of the informants suggested that penalties could improve care transitions if they were issued for inappropriate care, adverse events, different kind of abuse, misuse, and abnormalities or for not fulfilling the contract. Moreover, one participant argued that penalties could also be implemented for missing information in the referrals and for unnecessary referrals. Others suggested that penalties for providers could be harmful and, for instance, burden already strained budgets.

> 'And on the one hand…there is a system of penalties and rewards, but on the other hand, it also makes it necessary for medical entities to pay back these penalties, makes them financially burdened and does not fully secure them. They have a problem with securing their basic needs' (provider in long-term care 1)

For this reason, one participant suggested that penalties are sometimes inadequate and should be rather symbolic and constructive. Another dilemma regarding the penalties referred to estimating the responsibility if something goes wrong and difficulty in measuring quality of care. Some participants stated that currently, there are no penalties for suboptimal care transitions. However, if there were care coordinators, such penalties could be introduced.

APPENDIX C8: Basic findings from the interviews

GERMANY	
Organizational aspect	**Basic findings from the interviews**
Coordination of resources	▯ Need for better interprofessional and intersectoral collaboration among all involved in care process (PRIMARY CARE 1, HOSPITAL 2, INSURER/PAYER 1, INSURER/PAYER 2, LONG-TERM CARE 3) ▯ Need for clear definition of responsibilities of professionals and organizations (HOSPITAL 2, HOSPITAL 1, INSURER/PAYER 2) ▯ Need for patients' assessments, getting to know them personally & their needs (HOSPITAL 2, HOSPITAL 1, INSURER/PAYER 2) ▯ Importance and need for case management/manager (HOSPITAL 1, HOSPITAL 2, INSURER/PAYER 2) o Case managers role should be to focus more on patients' and optimization of care and to look beyond the current setting (HOSPITAL 1) o Case manages could also take on social aspects (HOSPITAL 1) o Advanced practices nurses could be case managers (HOSPITAL 1) ▯ Need for care planning and transition planning (HOSPITAL 1, INSURER/PAYER 2) ▯ Importance of LTC infrastructure (staff etc.) (HOSPITAL 1, INSURER/PAYER 2) ▯ Regular meetings with involved professionals and institutions (LONG-TERM CARE 2, LONG-TERM CARE 3) ▯ Legal regulations regarding discharge planning in hospitals and disability scale (INSURER/PAYER 1) ▯ Need for losing restrictions and reducing bureaucracy regarding hiring nurses from abroad (LONG-TERM CARE 2) ▯ Organizations should be aware of work of other settings so that the patient is prepared prior to care transition (PRIMARY CARE 1) ▯ System should be designed to enable professionals to adapt procedures and activities to the needs of the patients, if possible (PRIMARY CARE 1) ▯ Adapting structures and routines for intersectoral and interprofessional collaboration (PRIMARY CARE 1) ▯ Important positive role of the payer in planning care (HOSPITAL 2) ▯ Visits of medical staff at the LTC facilities to avoid hospitalization (HOSPITAL 2) ▯ Need for the support from the management (HOSPITAL 1) ▯ Importance of implementing transitions of care models by the organization (HOSPITAL 1) ▯ Importance of having case conferences (HOSPITAL 1) ▯ Need for more staff with one year training, less specialized (INSURER/PAYER 1) ▯ Discharge and transition planning should be performed together with payer (INSURER/PAYER 1) ▯ Providing essential medicine during discharge over the weekend (LONG-TERM CARE 2) ▯ During transition from home to LTC – patient's family is responsible for providing information (LONG-TERM CARE 2) ▯ Need for higher involvement of care assistants during transition process (LONG-TERM CARE 2) ▯ Need for higher involvement of primary care (LONG-TERM CARE 2) ▯ Availability of places to support patients & informal caregivers (LONG-TERM CARE 2) ▯ Doctors have vital role in selecting patients' transition destination (LONG-TERM CARE 1) ▯ Doctors have vital role in selecting services provided to the patient in ambulatory care (LONG-TERM CARE 1) ▯ Longer established providers are more preferred than newcomers (LONG-TERM CARE 1)

GERMANY	
Organizational aspect	**Basic findings from the interviews**
Limitations in coordination	Limited availability of staff especially in LTC (HOSPITAL 2, INSURER/PAYER 1, LONG-TERM CARE 2, LONG-TERM CARE 3) Limited availability of places in LTC facilities (HOSPITAL 2, LONG-TERM CARE 2, LONG-TERM CARE 3) Lack of coordination between health and long-term care providers (LONG-TERM CARE 1) Normative and legal conditions may make it difficult to delegate or transfer responsibilities (PRIMARY CARE 1) Organizations implement their own protocols but these protocols are not adapted to the situation of the patients (PRIMARY CARE 1) Separate financing streams for health care and long-term care (HOSPITAL 2) Using weekends and nights by LTC facilities to transfer "difficult" patients to the hospital (HOSPITAL 2) No care planning/transition planning means more suboptimal care transitions (HOSPITAL 1) It is common in Germany that unclear responsibilities of the professionals lead to suboptimal transitions (HOSPITAL 1) Case managers in Germany are focused on optimization for hospitals instead of optimization of care for the patient (HOSPITAL 1) Limited use of case conferences (HOSPITAL 1) Lack of legal regulations for carers from abroad (INSURER/PAYER 1) Doctors have dominant role (INSURER/PAYER 1) Nurses are not independent in their decisions (INSURER/PAYER 1) Competing for the budget between medical doctors and other providers (INSURER/PAYER 1) Limitation in division of care of staff with more training and less training (INSURER/PAYER 1) Lack of planning regarding the location of LTC facilities (INSURER/PAYER 1) Overproviding of ambulatory intensive LTC care (INSURER/PAYER 1) Limited involvement of primary care (LONG-TERM CARE 2) No formal referrals for LTC (LONG-TERM CARE 2) Primary care physicians are overworked (LONG-TERM CARE 2)
Communication	Availability of round-table regular meetings with different professionals from other settings and sectors (LONG-TERM CARE 2, LONG-TERM CARE 3, HOSPITAL 2) Need for better communication between different professionals and sectors involved in care process (PRIMARY CARE 1, INSURER/PAYER 1, HOSPITAL 1) Knowing personally involved professionals/institutions ease communication (HOSPITAL 2, LONG-TERM CARE 1) Need for more communication about patients' needs (LONG-TERM CARE 1, INSURER/PAYER 2) Need for personal communication with patients and family (LONG-TERM CARE 1, INSURER/PAYER 2) Importance of communication of 3 sides (sending-patient-receiving) (HOSPITAL 2) Receiving and sending settings should communicate for planned transitions of vulnerable patients (PRIMARY CARE 1) Importance of verbal communication (PRIMARY CARE 1) Importance of electronic or digital ways of communication (PRIMARY CARE 1) Need for the central actor facilitating the communication about free places in long-term care (HOSPITAL 2) Need for on-time communication (INSURER/PAYER 2) Communication between social care worker (sozialdienst) and LTC facilities (LONG-TERM CARE 2) Communication between ambulatory and stationary LTC regarding patient health status (LONG-TERM CARE 2) Good communication with the primary care (LONG-TERM CARE 3) Need for more detailed communication (LONG-TERM CARE 3) Limited communication between involved professionals (LONG-TERM CARE 1)

GERMANY	
Organizational aspect	**Basic findings from the interviews**
Limitations in communication	Limited communication with the family (HOSPITAL 2, LONG-TERM CARE 3) Using outdated methods (on paper) to communicate with other providers (HOSPITAL 1) Communication with the hospitals is malfunctioning (LONG-TERM CARE 3) Limited involvement of patient and family (LONG-TERM CARE 3) Involved groups may not understand the information (official language/formal language) (LONG-TERM CARE 1)
Transfer of information and patient responsibility	Need for electronic health information exchange, specifically electronic patient record (PRIMARY CARE 1, HOSPITAL 1, LONG-TERM CARE 2, LONG-TERM CARE 1) Importance of standardized protocol for information exchange (HOSPITAL 1, LONG-TERM CARE 2) Need for more detailed information (INSURER/PAYER 2, LONG-TERM CARE 3) Importance of e-Health (PRIMARY CARE 1) Some improvements were observed in some places in Germany, health care providers worked to develop standardized transition protocol (HOSPITAL 1) In complex situations doctor telephone, the general practitioner for clarification (HOSPITAL 2) Transfer of information should be going through the insurer (Plegekasse) (INSURER/PAYER 1) Patients' preferences should be also included (INSURER/PAYER 2) Need for more enhanced transfer of information (LONG-TERM CARE 3) Transfer of information is performed by social care worker (discharge manager) or by ambulatory care provider (LONG-TERM CARE 2) Need for timely information on disability score or the patient and organization responsible for financing (LONG-TERM CARE 2) Good transfer of information from primary care (LONG-TERM CARE 3) Round-table meetings to exchange ideas and information (LONG-TERM CARE 3) During transition from home to LTC – patient's family is responsible for providing information (LONG-TERM CARE 2)
Limitations in transfer of information and patient responsibility	Receiving non-specific, incomplete, delayed, or even no information is delivered (HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 3, LONG-TERM CARE 1) Using outdated methods such as on paper or fax to transfer the information (HOSPITAL 2, HOSPITAL 1, LONG-TERM CARE 1) Transfer of information may be affected by data protection (INSURER/PAYER 2, LONG-TERM CARE 1, HOSPITAL 1) Need for improving transfer of information (HOSPITAL 2, LONG-TERM CARE 3) Standardized protocol is not used in routine care (HOSPITAL 1) Very limited use of electronic patient records (HOSPITAL 1) Involved groups may not understand the information (official language) (LONG-TERM CARE 1) Transfer of information is the worst with primary care providers (LONG-TERM CARE 2)
Education and involvement	Patients' and caregivers' needs and preferences should be considered, care should be patient-centered (PRIMARY CARE 1, HOSPITAL 1, INSURER/PAYER 1, INSURER/PAYER 2) Importance of providing information and education to the patient and caregivers (PRIMARY CARE 1, HOSPITAL 1, INSURER/PAYER 2, LONG-TERM CARE 2) Need for involvement of patients and caregivers in decision-making process (LONG-TERM CARE 3, HOSPITAL 2, INSURER/PAYER 2) Importance of involving caregivers in the care process (PRIMARY CARE 1, HOSPITAL 2, INSURER/PAYER 2) Providing information and education to the patient and caregivers (HOSPITAL 2, LONG-TERM CARE 2, LONG-TERM CARE 1) Availability of places providing advice and information (INSURER/PAYER 1, LONG-TERM CARE 2) Regular meetings with the patients and family (HOSPITAL 2)

GERMANY	
Organizational aspect	**Basic findings from the interviews**
Limitations in education and involvement	□ Patients' and caregivers' needs and preferences are not considered (PRIMARY CARE 1, HOSPITAL 1, LONG-TERM CARE 3, LONG-TERM CARE 1) □ Limited involvement of patients' and caregivers' in decision-making (PRIMARY CARE 1, LONG-TERM CARE 3, HOSPITAL 2, HOSPITAL 1) □ Informal caregivers are often poorly informed and involved (HOSPITAL 1) □ Limited use of available advice, help centers by patients and caregivers (LONG-TERM CARE 2) □ Decisions of patients regarding the selection of care activities may be inappropriate (LONG-TERM CARE 3)
Training and education of staff	□ Need for well trained staff (e.g. case managers, LTC staff, care assistants) to provide high quality care (INSURER/PAYER 2, LONG-TERM CARE 2, PRIMARY CARE 1, INSURER/PAYER 1) □ Staff should develop competencies to look at care from multiple perspectives, also perspective of other providers (PRIMARY CARE 1) □ Professionals should have basic knowledge about how the care is organized in other settings (PRIMARY CARE 1, INSURER/PAYER 1) □ Availability of well trained staff in the hospital (LONG-TERM CARE 2, HOSPITAL 2) □ Mandatory training courses for the staff (LONG-TERM CARE 2, LONG-TERM CARE 3) □ Change in training scheme for nurses, comprehensive training programme (improved competencies) (INSURER/PAYER 1) □ More attention should be paid to the training regarding the communication/transfer of information (HOSPITAL 2) □ Need for increasing awareness of the staff regarding care transition (HOSPITAL 1) □ 1-year training for care assistants to provide all non-medical services (INSURER/PAYER 1) □ Employers compete with each other in order to keep personnel by providing additional trainings to the staff (LONG-TERM CARE 3)
Limitations in training and education of staff	□ Staff may not be competent enough to assess patients' needs (PRIMARY CARE 1) □ Nurses and care assistants are not trained to perform activities independently (INSURER/PAYER 1) □ In the past, division within training scheme among nurses (specialized to provide care only for some specific age groups) (INSURER/PAYER 1) □ Lack of psychological help/assistance provided to the staff. Need for more (LONG-TERM CARE 3) □ Lack of training regarding transitional care (LONG-TERM CARE 1)
Telemedicine and e-Health	□ Need for higher use of telemedicine and e-Health (HOSPITAL 1, PRIMARY CARE 1, INSURER/PAYER 2, LONG-TERM CARE 2, LONG-TERM CARE 3, LONG-TERM CARE 2) □ Need for electronic patient record (LONG-TERM CARE 2, PRIMARY CARE 1, HOSPITAL 1, INSURER/PAYER 2) □ e-Health is a mediator but not a causal factor for patient-centered care (PRIMARY CARE 1) □ Importance of video consultations (HOSPITAL 1) □ Importance of telemedicine, tele-nursing etc. (HOSPITAL 1) □ Introducing video-consultation (INSURER/PAYER 1) □ Use of health monitoring devices (LONG-TERM CARE 2) □ Need for use of health monitoring devices (LONG-TERM CARE 3)
Limitations in telemedicine and e-Health	□ Very limited use of telemedicine and e-Health (HOSPITAL 2, HOSPITAL 1, LONG-TERM CARE 1, LONG-TERM CARE 2, LONG-TERM CARE 3, LONG-TERM CARE 2, PRIMARY CARE 1) □ Use among older adults can be problematic (HOSPITAL 2, HOSPITAL 1) □ Very limited use of electronic patient records (HOSPITAL 1) □ Limited use of telemedicine affects possibility of patients to be discharged to home (HOSPITAL 1) □ Skeptical attitude of primary care towards video consultations (INSURER/PAYER 1)

GERMANY	
Organizational aspect	**Basic findings from the interviews**
Social care	Social care institutions are responsible for covering the costs for LTC if patient and/or family are not capable to pay (HOSPITAL 2, LONG-TERM CARE 2, INSURER/PAYER 1) Social care institutions help patient/caregiver to cover the costs of LTC without issues (LONG-TERM CARE 2, HOSPITAL 2) In inpatient setting, social care workers are focused on discharge management, for example by preparing the receiving setting (PRIMARY CARE 1, LONG-TERM CARE 2) Importance of involving social care workers in the interprofessional/intersectoral meetings (HOSPITAL 1, INSURER/PAYER 1) The importance of good functioning discharge manager (Sozialdienst) in the hospital (INSURER/PAYER 2) Availability of social services in nursing home and hospitals (HOSPITAL 1) Involvement of social care worker (discharge manager) in hospital, regular meetings with providers and working on problem-solving (LONG-TERM CARE 2) Social care institutions are interested in lowering rates for LTC facilities (INSURER/PAYER 1)
Limitations in social care	Participant have mixed feelings regarding involvement of social care workers in discharge planning (PRIMARY CARE 1, HOSPITAL 1) The role of social care workers is limited in outpatient settings (PRIMARY CARE 1) Difficulties in communication with social care institutions (LONG-TERM CARE 3) Unwillingness to pay by social care institutions to support LTC placement in case of cost rise (LONG-TERM CARE 3) Social care institutions communicate with patients and/or families in incomprehensible way (LONG-TERM CARE 1) Having separate role of social care worker in the hospital may lead to diffusion of responsibilities (HOSPITAL 1)
Supporting informal caregivers	Availability of training courses for informal caregivers (HOSPITAL 2, HOSPITAL 1, LONG-TERM CARE 2, LONG-TERM CARE 3, LONG-TERM CARE 1, INSURER/PAYER 2) Availability of respite care services (LONG-TERM CARE 2, INSURER/PAYER 1, INSURER/PAYER 2) Patients receive cash benefits to pay to carer of their choice. Thus, informal caregiver receives financial compensation (INSURER/PAYER 1, INSURER/PAYER 2, HOSPITAL 2) Availability of centers providing information and help to informal caregivers (LONG-TERM CARE 2, INSURER/PAYER 1) Need for increasing the budgets for respite care (LONG-TERM CARE 2) Importance of assessing informal caregivers' needs (HOSPITAL 1) Informal caregivers should also receive a training on how to take care of themselves (HOSPITAL 1) Importance to provide information about the institutions and professionals that provide help or respite care (HOSPITAL 1) LTC staff helps to identify patients at home that should be transitioned to formal LTC facilities (LONG-TERM CARE 1) Payer contributes to pension insurance of informal caregivers. The level depends on disability score (INSURER/PAYER 1)
Limitations in supporting informal caregivers	Sometimes offered courses and information centers are not used by informal caregivers (LONG-TERM CARE 2, LONG-TERM CARE 1) Informal caregivers do not receive enough support during care transition, are not involved & informed sufficiently (PRIMARY CARE 1, HOSPITAL 1) Informal caregivers do not receive ongoing support/education/information (HOSPITAL 1) Need for more solutions regarding respite care (INSURER/PAYER 1) Monetary compensation for respite care is prone to fraud from the applicant's side (INSURER/PAYER 1) Informal caregivers don't always receive sufficient support, it depends on family's determination (INSURER/PAYER 2) Limited psychological support provided to informal caregivers (INSURER/PAYER 2)

GERMANY	
Financial challenges	**Basic findings from the interviews**
Reimbursement	Social care support for patients' in reimbursement for LTC facilities in case of lack of financial funds/property/inability to pay by families (LONG-TERM CARE 2, LONG-TERM CARE 3, INSURER/PAYER 1, HOSPITAL 2) Profitable reimbursement rates for LTC facilities & fixed and in general satisfactory salaries for staff (INSURER/PAYER 1, HOSPITAL 2) Participants' mixed feelings regarding value-based reimbursements (PRIMARY CARE 1, HOSPITAL 1) Reimbursement in ambulatory LTC is satisfactory (LONG-TERM CARE 3, LONG-TERM CARE 1) Availability of LTC insurance (HOSPITAL 2) Importance of evidence-based reimbursements – reimbursing what works (PRIMARY CARE 1) Two possible reimbursements for psychiatric hospital for LTC patients: DRG or per-diem (HOSPITAL 2) Financing should be in one hand and the same across the sectors to reduce barriers between the settings (HOSPITAL 1) Reimbursing video consultations (INSURER/PAYER 1) Reimbursing trainings for informal caregivers (INSURER/PAYER 1) Negotiating reimbursement rates with social care and providers (INSURER/PAYER 1) DRG reimbursement in hospitals + budget (INSURER/PAYER 1) Per-diem reimbursement dependent on disability score (LONG-TERM CARE 2) The need for higher salaries for ambulatory LTC staff instead of additional rewards (LONG-TERM CARE 3) Need for higher public funding for LTC (and reducing OOP) (LONG-TERM CARE 1) Need for additional lump sum payment for transition period before the patients' disability score is estimated (LONG-TERM CARE 2)
Limitations in reimbursement	The role of out-of-pocket payments for LTC (INSURER/PAYER 1, LONG-TERM CARE 2, LONG-TERM CARE 3, LONG-TERM CARE 1, INSURER/PAYER 2, HOSPITAL 2) Lack of reimbursement for interprofessional collaboration/intersectoral care/transitional care (PRIMARY CARE 1, HOSPITAL 1) Payments per-diem may have negative impact on quality-of-care or admissions and ultimately care transitions (INSURER/PAYER 1, INSURER/PAYER 2) Activity-based payments may have negative impact, for instance, on supplier-induced demand (HOSPITAL 1, INSURER/PAYER 1) In Germany, reimbursement is physician-centered, focus on physician needs (PRIMARY CARE 1) DRG reimbursement in hospital may shorten the length-of-stay without justified cause (LONG-TERM CARE 2) Value-based payment methods – difficulty in measuring quality (HOSPITAL 1) Payments per-diem are not flexible enough. Need for additional lump sum to compensate for variability in incurred costs (LONG-TERM CARE 2) Extensive administrative work related to the reimbursement and reporting (HOSPITAL 2) Reimbursement of services may be restricted to some age groups (HOSPITAL 2) The level of reimbursement is dependent on the score on disability scale. Sometimes the disability score is provided with the delay (LONG-TERM CARE 2) The level of reimbursement is dependent on the score on disability scale. Responsible institutions often manipulate the score for their gain (reducing costs) (LONG-TERM CARE 3) Unwillingness to pay by social care institutions to support LTC placement (LONG-TERM CARE 3) Reimbursement for some ambulatory LTC services don't correspond to the needed workload (LONG-TERM CARE 3)

GERMANY	
Financial challenges	**Basic findings from the interviews**
Penalties	Penalties are not available in Germany (LONG-TERM CARE 2, LONG-TERM CARE 3, INSURER/PAYER 1) Participant mixed feelings/hesitancy about the use of penalties (PRIMARY CARE 1, LONG-TERM CARE 2) Too minor penalties may not have desired effect (PRIMARY CARE 1) Penalties on their own are not sufficient measure, they need to be constructive and offer solutions (HOSPITAL 1) Penalties could help to raise awareness about the problem (HOSPITAL 1) No information provided by the respondent (INSURER/PAYER 2) Penalties could be enacted for misuse, abuse, abnormalities (INSURER/PAYER 1)
Limitations in penalties	Problems with appointing responsible party (LONG-TERM CARE 2, INSURER/PAYER 1) Difficulty in measuring the quality (HOSPITAL 1)
Rewards	Rewards are not available in Germany (LONG-TERM CARE 2, HOSPITAL 2, INSURER/PAYER 1) Limited knowledge regarding rewards (HOSPITAL 1, PRIMARY CARE 1, HOSPITAL 2) Participants' mixed feelings/hesitancy about the use of rewards (LONG-TERM CARE 2, PRIMARY CARE 1) Some potential for rewards to improve care transitions, stimulate practices (though participants unsure how) (HOSPITAL 1, PRIMARY CARE 1) Additional payment during corona (LONG-TERM CARE 3) Need for higher salaries instead of rewards (LONG-TERM CARE 3) Importance of creating quality indicators related to care transitions (PRIMARY CARE 1) No information provided by the respondent (INSURER/PAYER 2)
Limitations in rewards	Problems with appointing responsible party (LONG-TERM CARE 2, HOSPITAL 2) Questioning whether rewards are effective in long-term (PRIMARY CARE 1) Difficulty in measuring the quality (HOSPITAL 1) Problems with 'cheating' the system by 'pretending' that criteria are met (HOSPITAL 1)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Communication	Importance of good communication with the patient and informal caregiver (INSURER/PAYER, PRIMARY CARE 1, LONG-TERM CARE 1, LONG-TERM CARE 3, LONG-TERM CARE 2) Importance of interprofessional/intersectoral communication (HOSPITAL 1, HOSPITAL 2, INSURER/PAYER, LONG-TERM CARE 1, LONG-TERM CARE 2) Availability and importance of multidisciplinary team meetings for interprofessional/intersectoral communication (HOSPITAL 1, LONG-TERM CARE 1) Importance of e-Health solutions to improve communication between the providers and also with the caregiver (HOSPITAL 1, INSURER/PAYER) Important role of transfer nurses communicating with receiving setting (e.g. community care, LTC institutions) and informal caregiver (HOSPITAL 1, INSURER/PAYER) Important role of social care workers communicating with LTC institutions, the patient and informal caregiver (HOSPITAL 1, LONG-TERM CARE 1) Good communication between providers, especially home care and long-term care (PRIMARY CARE 1) Professionals themselves contact the long-term care facility (PRIMARY CARE 1) Professionals from long-term care facilities contact the person in home care to get acquainted (PRIMARY CARE 1) Knowing professionals from the organization/institutions ease the communication (HOSPITAL 1) For patients being discharged home without need of care, general practitioner or community physician is contacted (HOSPITAL 1) Importance of video call or telephone call to communicate with other providers (HOSPITAL 2) Institutions that are part of the hospital communicate easier and better (INSURER/PAYER) Importance of good communication between the providers about patients' medical, psychological, social and caring needs (INSURER/PAYER) Important role of client advisors in communicating with institutions, patient and informal caregiver (LONG-TERM CARE 3) District nurses communicate with the LTC institutions LONG-TERM CARE 3) District nurses may also visit and communicate in person with the staff at the LTC institutions (LONG-TERM CARE 3) Involvement of the district nurse in communication between the professionals, the patient and informal caregiver (LONG-TERM CARE 3)
Limitations in communication	Sometimes interprofessional/intersectoral communication is not optimal, particularly between hospitals and home care (HOSPITAL 2, INSURER/PAYER) Need for improvement of communication (INSURER/PAYER)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Transfer of information and patient responsibility	Importance of good transfer of information between the providers/institutions and informal caregivers (HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 1, LONG-TERM CARE 2) Importance of the quality of transferred information, for instance, completeness (PRIMARY CARE 1, HOSPITAL 2, LONG-TERM CARE 1, LONG-TERM CARE 3) Availability of agreements between the providers may improve transfer of information (HOSPITAL 1, INSURER/PAYER) Importance of good transfer of patients' information including not only medical but also psychological and social aspects (LONG-TERM CARE 1, PRIMARY CARE 1) Importance of standardized protocol for information exchange (HOSPITAL 1, LONG-TERM CARE 1) Important role and need for electronic health records (INSURER/PAYER, LONG-TERM CARE 1) Importance of timely transfer of information (HOSPITAL 2) Need for transferring information to all providers involved in the next setting also including patients' preferences (HOSPITAL 2) If patient goes to the hospice, Information is provided with the letter and follow-up call to the GP (LONG-TERM CARE 1) Importance of telephone call while transferring the information (LONG-TERM CARE 1) Interprofessional collaboration may smooth the transfer of information (LONG-TERM CARE 1) All providers should have access to agreements concerning advance care planning (LONG-TERM CARE 1) In some cases, meeting in-person with the staff at the receiving setting may improve transfer of information (LONG-TERM CARE 3) Good transfer of information between providers (LONG-TERM CARE 3) Information about the patient is available in the medical file, records (LONG-TERM CARE 3) Information about the patient is passed with the use of secured mail (LONG-TERM CARE 3)
Limitations in transfer of information and patient responsibility	Sometimes transferred information is not detailed enough, is incomplete (HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 1) Sometimes transferred information is delayed (HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 1) Privacy laws may restrict transferring the information between the institutions (HOSPITAL 1, INSURER/PAYER) Lack of single system for information exchange, every provider has their own system (LONG-TERM CARE 1, LONG-TERM CARE 2) Transfer of information is one of the biggest flaws in the Netherlands (HOSPITAL 1) Sometimes transferred information includes only one providers' perspective (HOSPITAL 1) Lack of participation of the provider in digital solutions to transfer information (HOSPITAL 1) Time pressure to transfer the patient to another setting (INSURER/PAYER) The information about the psychological aspect is often not transferred (LONG-TERM CARE 1) Diminished responsibility of who should transfer the information (LONG-TERM CARE 1) Provision of wrong information may affect care transition (LONG-TERM CARE 3)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Availability and coordination of resources	□ Importance and need for better interprofessional/intersectoral collaboration among all involved in care process (PRIMARY CARE 1, HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 1, LONG-TERM CARE 2) □ Availability and importance of agreements between the providers/institutions (HOSPITAL 1, LONG-TERM CARE 1, INSURER/PAYER, LONG-TERM CARE 3) □ Importance of LTC infrastructure (e.g. sufficient number of staff, need for more institutions, availability of crisis beds in the nursing homes) (HOSPITAL 1, INSURER/PAYER, LONG-TERM CARE 3) □ Important role of physiotherapist (HOSPITAL 1, HOSPITAL 2, INSURER/PAYER) □ Importance of good patients' assessment and indication (HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 2) □ Availability and importance of multidisciplinary team meetings (HOSPITAL 1, LONG-TERM CARE 1) □ Need for clear definition of responsibilities of professionals and organizations (PRIMARY CARE 1, LONG-TERM CARE 2) □ Primary aim is to keep the patients as long as possible at home (LONG-TERM CARE 3, LONG-TERM CARE 2) □ Availability and important role of transfer nurses (HOSPITAL 1, INSURER/PAYER) □ Need for the awareness and support from the management regarding transitional care/collaboration (HOSPITAL 1, LONG-TERM CARE 2) □ Importance of advanced care planning/transition planning and access to such plans by all providers (HOSPITAL 1, LONG-TERM CARE 1) □ Importance of engaging community nurses during care transitions (HOSPITAL 2, LONG-TERM CARE 3) □ Importance of care transition managers in the long-term care settings (INSURER/PAYER) □ Need for involvement of professionals from previous setting in the next setting (e.g. long-term care facility) (PRIMARY CARE 1) □ Importance of timely involvement of different professionals and timely follow-up (HOSPITAL 2) □ Importance of application of transitional care interventions in regular care (HOSPITAL 2) □ Need for integrating transitional care interventions in already existing care networks, not building new ones (HOSPITAL 2) □ Primary care physician and nurse could have an important role within transitional care interventions (HOSPITAL 2) □ Transitional care interventions should consider home as a starting point so that transitions are prevented in the first place (HOSPITAL 2) □ Important role of dietician (INSURER/PAYER) □ Knowing personally involved professionals/institutions (LONG-TERM CARE 1) □ In urgent cases, care in nursing home is organized within few days (LONG-TERM CARE 3) □ Important role of client advisors in preparing receiving setting and the client (transition from home to long-term care institutions) (LONG-TERM CARE 3) □ Importance of understanding the interrelation between the reforms and impact on different actors (LONG-TERM CARE 2) □ Reforms should be considering the impact on the whole system, not only on single organization (LONG-TERM CARE 2)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Limitations in availability and coordination of resources	□ Limited availability of staff (HOSPITAL 1, LONG-TERM CARE 2) □ Criteria for obtaining Wlz (indication to receive LTC care) is strict, not rational (HOSPITAL 1, LONG-TERM CARE 3) □ Lack of collaboration between providers/institutions - working in silos (HOSPITAL 1, LONG-TERM CARE 2) □ In some cases, waiting time, waiting list to access the next setting (LONG-TERM CARE 1, LONG-TERM CARE 3) □ Waiting time for the indication Wlz that enables the patient to access long-term care home or other care institution (LONG-TERM CARE 3) □ Fragmentation within the organization when it comes to responsibilities (PRIMARY CARE 1) □ The size of the organization may impact the care transitions, the bigger the organization, the more difficult care transitions (PRIMARY CARE 1) □ Patient moving from location A (e.g. home) to location B (e.g. nursing home) receives new physician, nurse, medication system (PRIMARY CARE 1) □ New case manager introduced as a part of transitional care intervention may be unfamiliar with the patient and his/her network (HOSPITAL 2) □ Certain rules and regulations may affect care transitions (INSURER/PAYER) □ Reforms in one part of the system may have an unintended consequence for other involved actors (LONG-TERM CARE 2)
Training and education of staff	□ Staff should be aware or trained about work of different professionals, in other settings (HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 3) □ Importance of education regarding transitional care (INSURER/PAYER, LONG-TERM CARE 1) □ Important role of multidisciplinary team meetings in getting to know about each other's work (HOSPITAL 1, HOSPITAL 2) □ Staff is well trained and educated (PRIMARY CARE 1) □ Importance of educating the staff to recognize some disease specific vital signs (HOSPITAL 2) □ Importance of providing additional training to staff to improve quality of care transitions (INSURER/PAYER) □ Importance of training and education of staff to provide the right information to the other professionals (LONG-TERM CARE 3) □ Importance of changing the mindset of professionals from "taking over" care from the patient & informal caregiver to more interaction & support-based model (LONG-TERM CARE 2) □ Educating staff about the important role of providing support for self-management (LONG-TERM CARE 2)
Limitations in training and education of staff	□ Staff having limited knowledge about work of other professionals, other settings (HOSPITAL 1) □ Staff in the community setting has rather generic geriatric education and may have difficulty in dealing with complex patients with specific diseases (HOSPITAL 2)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Education and involvement	□ Importance of well-educated and informed patient and informal caregiver (HOSPITAL 1, INSURER/PAYER, HOSPITAL 2, LONG-TERM CARE 1, LONG-TERM CARE 3, LONG-TERM CARE 2) □ Importance of providing multidimensional information/education to the patient and informal caregiver (HOSPITAL 1, HOSPITAL 2, INSURER/PAYER, LONG-TERM CARE 1) □ Importance of patients' and informal caregivers' needs and preferences (HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 1, LONG-TERM CARE 2) □ Importance of the involvement of informal caregivers in the care process (HOSPITAL 2, LONG-TERM CARE 2) □ Importance of assessing caregivers' ability to provide care (HOSPITAL 2, LONG-TERM CARE 2) □ Assessing informal caregivers' ability to provide care (LONG-TERM CARE 1, LONG-TERM CARE 2) □ Providing multidimensional information/education to the patient and informal caregiver (LONG-TERM CARE 3, LONG-TERM CARE 2) □ Providing the patient and informal caregiver with information at an early stage (LONG-TERM CARE 3, LONG-TERM CARE 2) □ Need for engagement of informal caregiver in long-term care facility (PRIMARY CARE 1) □ Importance of providing the patient and informal caregiver with information and education at an early stage (HOSPITAL 1, HOSPITAL 2) □ Need for addressing psychological needs of the patient and informal caregiver (INSURER/PAYER) □ Professionals knowing personally involved professionals/institutions can provide more detailed information (LONG-TERM CARE 1) □ Involvement of patient and informal caregiver in decision-making process (LONG-TERM CARE 1) □ Providing education and support to the patient and informal caregiver for self-management (LONG-TERM CARE 2)
Limitations in education and involvement	□ In some cases, informal caregivers are not involved in the care process, or their involvement is very limited (HOSPITAL 1, HOSPITAL 2, PRIMARY CARE 1, LONG-TERM CARE 2) □ Involvement of the informal caregiver is very limited once the patient is transferred to long-term care facility (PRIMARY CARE 1) □ The level of involvement of the informal caregivers depends on the organization (HOSPITAL 1) □ Sometimes provided care is not patient-centered (INSURER/PAYER) □ Lack of information and education to the patient may prolong recovery (INSURER/PAYER) □ Some informal caregivers may be afraid/hesitant to ask questions (INSURER/PAYER) □ The education and information provided to the patient and informal caregiver varies among providers/institutions (INSURER/PAYER)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Telemedicine and e-Health	□ Important role and the use of electronic devices to monitor patients at home (HOSPITAL 2, INSURER/PAYER, LONG-TERM CARE 3, LONG-TERM CARE 2) □ Important role and the need for electronic patient record that is accessible to all (HOSPITAL 1, HOSPITAL 2, INSURER/PAYER) □ Important role of e-Health and telemedicine to provide optimized care transitions (LONG-TERM CARE 2, HOSPITAL 2) □ Need for telemedicine and e-Health solutions to be personalized (LONG-TERM CARE 1, HOSPITAL 1) □ Use of telemedicine at home, for instance medication dispenser (PRIMARY CARE 1) □ The use of telemedicine is helpful in self-management (PRIMARY CARE 1) □ e-Health could improve standardization (HOSPITAL 1) □ Importance of providing e-Health, telemedicine resources to the patient (HOSPITAL 2) □ Importance of providing e-Health and telemedicine resources to the staff (HOSPITAL 2) □ Telemedicine/e-Health devices may improve communication with the family (INSURER/PAYER) □ Participants mixed feelings regarding the use of telemedicine and its effectiveness (LONG-TERM CARE 1) □ Need for more testing of e-health and telemedicine solutions (LONG-TERM CARE 2)
Limitations in telemedicine and e-Health	□ The use of telemedicine stops once the patient is transferred to long-term care facility (PRIMARY CARE 1) □ Lack of integration of the provider in digital solutions (HOSPITAL 1) □ Privacy issues (HOSPITAL 2) □ Patients' inability to pay for electronic solutions, telemedicine (HOSPITAL 2) □ The use of telemedicine among older adults is not very common (LONG-TERM CARE 1) □ Older adult patients have complex needs that may not be addressed with tele-health (LONG-TERM CARE 1) □ Future generations will be more digital competent due to current use of digital solutions (LONG-TERM CARE 2)
Social care	□ Availability and important role of social care workers in hospitals and home care (PRIMARY CARE 1, HOSPITAL 1, CS, LONG-TERM CARE 1) □ Important role and involvement of social care workers in preparing the transition, for instance, to nursing home (PRIMARY CARE 1, HOSPITAL 1, CS, LONG-TERM CARE 1) □ Social care workers have more time to look at other aspects beyond medical care (HOSPITAL 1) □ Important role of social care workers to assess the patients' situation holistically (HOSPITAL 1) □ Social care workers are not always involved in care transition (INSURER/PAYER) □ Social care worker often knows the patient very well and their environment, needs and preferences (CS) □ In some cases, social care worker can be seen as coordinator between different institutions (CS) □ Important role of social workers in providing support to informal caregivers (LONG-TERM CARE 1) □ Social care workers are well informed about different organizations providing care (LONG-TERM CARE 1) □ Participant mixed feelings regarding the role of social workers (LONG-TERM CARE 3) □ Social care workers can arrange volunteers (LONG-TERM CARE 3) □ Social care workers may be engaged to provide support and assistance to the patient & informal caregiver, especially with non-medical tasks (LONG-TERM CARE 2) □ Social care workers could socially engage the patients this could result in patients' being more active and independent (LONG-TERM CARE 2)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Limitations in social care	▯ The role of social care worker could be performed by other professionals i.e. nurse (HOSPITAL 1, PRIMARY CARE 1) ▯ Social components are not addressed enough (PRIMARY CARE 1) ▯ Social care workers know patients less than a district nurse (LONG-TERM CARE 3)
Supporting informal caregivers	▯ Support provided to the informal caregivers varies among organizations/institutions (HOSPITAL 1, INSURER/PAYER) ▯ Participant believes that provided support is sufficient (LONG-TERM CARE 3, LONG-TERM CARE 2) ▯ Providing informal caregivers with information, guidance, and support and/or bringing them in contact with right professionals (LONG-TERM CARE 3, LONG-TERM CARE 2) ▯ Importance and need for psychological or social support provided to the informal caregiver (HOSPITAL 2, PRIMARY CARE 1) ▯ Need for assessing informal caregivers' needs (PRIMARY CARE 1) ▯ Participant doesn't have firm opinion whether provided support to is sufficient (LONG-TERM CARE 1) ▯ Important role of social workers in providing support to informal caregivers (LONG-TERM CARE 1) ▯ Availability of organizations providing support to informal caregivers (LONG-TERM CARE 2)
Limitations in supporting informal caregivers	▯ Informal caregivers do not receive enough support during care transition (PRIMARY CARE 1, HOSPITAL 1) ▯ Lack of structural involvement of informal caregivers in most settings (HOSPITAL 1) ▯ Some informal caregivers may be afraid/hesitant to ask questions (INSURER/PAYER)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Reimbursement	□ Need for reimbursing interprofessional/intersectoral collaboration, transitional care (PRIMARY CARE 1, HOSPITAL 2) □ Importance of satisfactory salaries for the staff (INSURER/PAYER, HOSPITAL 1) □ Participants mixed feelings regarding the activity-based payments (HOSPITAL 2, HOSPITAL 1) □ The organization receives the budget, nurses receive salary independent of volume of care provided (HOSPITAL 1, HOSPITAL 2) □ Participants limited knowledge regarding the reimbursement (LONG-TERM CARE 1, LONG-TERM CARE 3) □ Importance of sufficient reimbursement level of providers/institutions (HOSPITAL 1) □ Participant mixed feelings regarding value-based reimbursements (PRIMARY CARE 1) □ Availability of extra quality reimbursement as a part of standard reimbursement, the effect is still unclear (INSURER/PAYER) □ Importance of value-based payments and their potential to improve quality of care (HOSPITAL 1) □ The government tries to keep the patients at home for as long as it is possible because it is cheaper than institutionalization (PRIMARY CARE 1) □ Need for flexibility to combine reimbursement forms from the government and health insurers (PRIMARY CARE 1) □ Need for increasing financing for long-term care (HOSPITAL 1) □ Reimbursement per patient should be based on what is declared by the caregiver what's needed for the patient at given moment (HOSPITAL 1) □ Nurses themselves should do indication about patients' caring needs (HOSPITAL 1) □ Community nurses are financed from basic insurance (HOSPITAL 2) □ Need for the reimbursement of physical therapy (HOSPITAL 2) □ Five years ago Dutch government gave a lot of extra money to improve the quality of care (INSURER/PAYER) □ Increasing salaries for nurses and careers increased the total number of the staff, it has an impact on time spent with patients (INSURER/PAYER) □ Health insurance company dedicate additional reimbursement for training staff to improve quality of care (INSURER/PAYER) □ Reimbursing long-term care organizations in advance results in possibility of organizations to secure beds, staff etc. (INSURER/PAYER)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Limitations in reimbursement	The role of out-of-pocket payments for LTC (INSURER/PAYER, LONG-TERM CARE 1, LONG-TERM CARE 3, LONG-TERM CARE 2) The reimbursement per patient is fixed according to indication, irrespective of variability in care needs, as a result some organizations may experience financial loss (HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 3) Lack of reimbursement for interprofessional/intersectoral collaboration, for instance, when nurse from long-term care facility visit patient at home (PRIMARY CARE 1, HOSPITAL 2) Value-based payments - Difficulty in measuring quality and keeping track of the entire transition process, need for standardized indicators (PRIMARY CARE 1, HOSPITAL 1) Activity-based payments could have negative impact on care transition by, for instance, leading to overproduction (PRIMARY CARE 1, LONG-TERM CARE 1) Lack of flexibility/possibility to combine reimbursement forms from the government and health insurers (PRIMARY CARE 1) Low salaries for LTC staff, particularly community nurses (HOSPITAL 1) Physiotherapy is not included in basic insurance (HOSPITAL 2) Financial resources for long-term care is limited/low, this has implication on availability of beds in LTC (HOSPITAL 1) Insufficient reimbursement for providers/institutions may affect availability/ staffing levels (HOSPITAL 1) The village or the city may be reluctant to pay for home care and may prefer moving the patients to long-term care, home care is paid by the city while long-term care is covered from tax (INSURER/PAYER) Reimbursement for extra nurses, social care workers etc. may not be paid by insurance companies or the government even if it is meant to improve quality of care (INSURER/PAYER) Some long-term care facilities complain about lack of financial resources to improve quality of care (INSURER/PAYER) Not flexible reimbursement arrangements, example of earlier hospital discharge and providing care at home (INSURER/PAYER) Cutting the budget (reform in 2015) in the Netherlands for long-term care had an impact on number of LTC settings (LONG-TERM CARE 2) Cutting the budget for LTC organizations by the government – cuts will need to be done somewhere within the organization (LONG-TERM CARE 2)
Rewards	Importance of internal motivations of staff to provide good quality care is more important than financial rewards (PRIMARY CARE 1, INSURER/PAYER, LONG-TERM CARE 1, LONG-TERM CARE 3) Participant mixed feelings regarding the use of financial rewards (PRIMARY CARE 1, INSURER/PAYER, LONG-TERM CARE 2) Financial rewards at the organizational level could improve quality of care by, for instance, encouraging collaboration between professionals/providers/sectors (HOSPITAL 1, INSURER/PAYER) Participants negative feelings towards the use of financial rewards (LONG-TERM CARE 3) Rewarding organizations once a year based on their performance (HOSPITAL 1) Financial rewards could be potentially reinvested by the organizations to further improve quality of care (i.e. staff, beds, education) (HOSPITAL 1) Rewards should be for organizations, not for individuals (HOSPITAL 1) System of rewards was used in the Netherlands (INSURER/PAYER) Stimulation is more effective than rewards. Money should be put into developing competencies of staff so that the effect is maintained (INSURER/PAYER) Financial rewards have potential to impact care transition, but on organizational level, not at health care professional level (LONG-TERM CARE 1) Lack of financial rewards for district nurses (LONG-TERM CARE 3)

THE NETHERLANDS	
Financial challenges	**Basic findings from the interviews**
Limitations in rewards	Financial rewards are short term stimulation (LONG-TERM CARE 2, INSURER/PAYER) Having rewards for long-term is not possible as someone would need to pay for it (INSURER/PAYER) Once reward system stops, the efforts to improve quality of care also stop (the 'extra' also stops) (INSURER/PAYER)
Penalties	Participant mixed feelings regarding the use of penalties (PRIMARY CARE 1, HOSPITAL 1, HOSPITAL 2, LONG-TERM CARE 2) Participants negative feelings regarding the use of penalties (INSURER/PAYER) Availability of benchmarking, getting less or more money based on performance (PRIMARY CARE 1) Need for better indicators for penalties, based more on outcomes that are important for the patient, and nurses (PRIMARY CARE 1) Penalties could be issued for inappropriate care, referral, bad communication, transfer of information or delayed care etc.(HOSPITAL 2) System of penalties is introduced in the Netherlands (INSURER/PAYER) Financial penalties have potential to impact care transition, but on policy level (LONG-TERM CARE 1) Lack of financial penalties for community nurses (LONG-TERM CARE 3) Internal motivations of staff to provide good quality care is more important than financial penalties (LONG-TERM CARE 3)
Limitations in penalties	Problems with appointing responsible party (HOSPITAL 1, HOSPITAL 2) Financial penalties could have an impact on admission policy, for instance, by admitting healthier patients (LONG-TERM CARE 1) Problems with complexity of the patients (HOSPITAL 2) The effect of penalties is short-lived (INSURER/PAYER) Penalties could be harmful and negatively affect quality of care (INSURER/PAYER) Penalties don't work (INSURER/PAYER) Problems with measuring the quality of care (LONG-TERM CARE 2) There are always individuals who try to "cheat" the system (LONG-TERM CARE 2)

POLAND	
Organizational challenges	**Basic findings from the interviews**
Coordination of resources	□ Need for coordinator (PRIMARY CARE 2, HOSPITAL 2, INSURER/PAYER, LONG-TERM CARE 2, LONG-TERM CARE 1) □ Need for development of LTC infrastructure & resources (beds, facilities, staff) (HOSPITAL 1, INSURER/PAYER, LONG-TERM CARE 2, LONG-TERM CARE 1, PRIMARY CARE 1) □ Important role of physiotherapists/rehabilitation (HOSPITAL 2, HOSPITAL 1, LONG-TERM CARE 2, LONG-TERM CARE 1) □ Coordinator should be linked to community, know environment, the patient etc. (PRIMARY CARE 2, HOSPITAL 2, INSURER/PAYER, PRIMARY CARE 1) □ Important role of primary care and need for stronger involvement (PRIMARY CARE 2, HOSPITAL 1, PRIMARY CARE 1) □ Need for developing binding procedures/regulations regarding the transition/care coordination (LONG-TERM CARE 2, LONG-TERM CARE 1, PRIMARY CARE 1) □ Important role of care assistants (PRIMARY CARE 1, HOSPITAL 1) □ Important role of nurses (PRIMARY CARE 2, PRIMARY CARE 1) □ Important role of charities and volunteers (INSURER/PAYER, PRIMARY CARE 1) □ Need for timely provision of LTC (LONG-TERM CARE 1, PRIMARY CARE 1) □ Need for shortening the waiting time for LTC (LONG-TERM CARE 1, PRIMARY CARE 1) □ Need for better classification of patients according to needs (considering the patient & environment) (HOSPITAL 1, PRIMARY CARE 1) □ Need for coordination of financial resources between the health and social system (INSURER/PAYER) □ Medical staff, specifically general practitioner should not be involved in care coordination due to shortage (INSURER/PAYER) □ Coordinator could be public health graduate, paramedic or a nurse (INSURER/PAYER) □ It is important to consider the resource management efficiency in order to deliver effective care to higher number of patients (INSURER/PAYER) □ Questioning the relevance of care coordinator only in the inpatient settings (INSURER/PAYER) □ Coordination of resources is the most important (INSURER/PAYER) □ Need for 24/7 availability of doctors in LTC facilities (LONG-TERM CARE 2) □ Availability of better medications in hospitals than in LTC (LONG-TERM CARE 2) □ Need for more (multidisciplinary) staff in LTC facilities (LONG-TERM CARE 2) □ Regulations regarding the kind of staff in LTC facilities (LONG-TERM CARE 2) □ Need for addressing multiple aspects at once – medical, psychological, social, spiritual (LONG-TERM CARE 2) □ Care transition should be coordinated from the beginning till the end (LONG-TERM CARE 2)
Limitations in coordination	□ Limited availability of places in LTC facilities (INSURER/PAYER, LONG-TERM CARE 1, HOSPITAL 1) □ Limited availability of LTC staff to provide care at home & LTC facilities (LONG-TERM CARE 2, HOSPITAL 1, LONG-TERM CARE 1) □ Lack of binding procedures/regulations regarding the transition (LONG-TERM CARE 2, LONG-TERM CARE 1, PRIMARY CARE 1) □ Lack of coordination between providers (HOSPITAL 2, HOSPITAL 1, LONG-TERM CARE 1) □ Long waiting time to access LTC facilities (PRIMARY CARE 2, LONG-TERM CARE 1) □ Limited involvement of primary care (HOSPITAL 1, LONG-TERM CARE 2) □ Lack of coordination between the health and the social system (INSURER/PAYER, LONG-TERM CARE 2) □ Long waiting times for specialized care (PRIMARY CARE 2) □ Lack of transitional care coordinator (PRIMARY CARE 2) □ Volunteers may not want to perform caring tasks (HOSPITAL 1) □ Volunteers' rotation (HOSPITAL 1) □ Limited staff in hospitals (LONG-TERM CARE 2) □ In hospitals focus on medical care only (LONG-TERM CARE 2) □ Not enough settings helping in care transition (LONG-TERM CARE 1) □ Insufficient number of social care workers (LONG-TERM CARE 1) □ Infrastructure of some LTC facilities is not functional, adapted (LONG-TERM CARE 1)

POLAND	
Organizational challenges	**Basic findings from the interviews**
Communication	□ Need for better communication between professionals representing different providers and sectors (LONG-TERM CARE 2, LONG-TERM CARE 1) □ Limited or lack of communication with the patient/family regarding discharge (LONG-TERM CARE 2, PRIMARY CARE 1) □ Importance of good communication between the providers about patients' needs (PRIMARY CARE 1) □ Need for communication with the family (PRIMARY CARE 1) □ Need for active communication between engaged professional groups (LONG-TERM CARE 2) □ Need for timely communication between sending-receiving setting (LONG-TERM CARE 1) □ Detailed information provided by hospitals to LTC (HOSPITAL 1) □ Telephone calls to patients should be introduced (INSURER/PAYER) □ Short telephone communication between hospital and LTC facility (INSURER/PAYER) □ Lack of communication with the primary care physicians (INSURER/PAYER) □ Important role of social care workers in communication between LTC facilities (LONG-TERM CARE 2)
Limitations in communication	□ Limited/very limited communication between providers (PRIMARY CARE 2, HOSPITAL 2, HOSPITAL 1, LONG-TERM CARE 2, INSURER/PAYER, LONG-TERM CARE 1, PRIMARY CARE 1) □ No direct communication between providers (PRIMARY CARE 2, HOSPITAL 2) □ Limited communication between the staff and patient/family during discharge (LONG-TERM CARE 2, PRIMARY CARE 1) □ Short telephone communication between hospital and LTC facility (INSURER/PAYER) □ Lack of communication with the primary care (INSURER/PAYER, PRIMARY CARE 1)
Transfer of information and patient responsibility	□ Need for structured/standardized information exchange, especially between the hospital and primary care (PRIMARY CARE 2, HOSPITAL 1, LONG-TERM CARE 2) □ Transfer of documents done by hospital is more accurate than in primary care (HOSPITAL 1) □ Nurses should be engaged (HOSPITAL 2) □ Providers receive documents earlier to prepare LTC setting for the patient (HOSPITAL 1) □ Complete information provided by the hospitals to LTC (HOSPITAL 1) □ In hospital social care workers are responsible for transfer of information to LTC facilities (HOSPITAL 1) □ Need for introduction of online platform to transfer the patient's information – digitalization (INSURER/PAYER) □ Transferring full medical information from LTC facility to the hospital (LONG-TERM CARE 2) □ Information card follows the patient (LONG-TERM CARE 2) □ Need for timely transfer of information between sending-receiving setting, arranging place (LONG-TERM CARE 1)

POLAND	
Organizational challenges	**Basic findings from the interviews**
Limitations in transfer of information and patient responsibility	□ Patient carrying the information (PRIMARY CARE 2, HOSPITAL 1, INSURER/PAYER, LONG-TERM CARE 2) □ Very limited, not-detailed transfer of information (HOSPITAL 2, LONG-TERM CARE 2, PRIMARY CARE 1) □ Limited use of the online platform to transfer the information (PRIMARY CARE 2) □ Lack of structured information exchange between hospital and primary care (PRIMARY CARE 2) □ Very limited transfer of information (HOSPITAL 2) □ Lack of direct contact with the other provider (HOSPITAL 2) □ Outdated transferring of information on paper (INSURER/PAYER) □ Making regulations regarding the need to prepare discharge letters may further burden limited staff (INSURER/PAYER) □ Lack of information (to the LTC) regarding the resident/patient admitted to the hospital (LONG-TERM CARE 2) □ Problem with the transfer of the information card within the hospital (single setting) (LONG-TERM CARE 2) □ Discharge letters are not standardized (LONG-TERM CARE 2)
Education and involvement	□ Preparing and providing education to the patient and/or caregiver, not only in the hospital but also at home (PRIMARY CARE 2, HOSPITAL 2, HOSPITAL 1, PRIMARY CARE 1) □ Need for provision of multidimensional information/education to the patient and the family (HOSPITAL 2, INSURER/PAYER, LONG-TERM CARE 2, PRIMARY CARE 1) □ Providing medical and organizational advice by nurses in primary care settings (PRIMARY CARE 2) □ Family's knowledge and involvement play crucial role (HOSPITAL 2, HOSPITAL 1) □ Availability of the program to educate the family (HOSPITAL 2) □ Patient and family readiness for the transition (HOSPITAL 2) □ Patient and family has the right to receive the information in the hospital (HOSPITAL 1) □ District nurse provide education to the family (HOSPITAL 1) □ Family is responsible for the patient (HOSPITAL 1) □ Need for the program directed to informal caregivers and their needs (LONG-TERM CARE 2) □ Availability of courses educating informal caregivers (LONG-TERM CARE 1) □ Availability of information in forms of leaflets and instructional videos (PRIMARY CARE 1)
Limitations in education and involvement	□ Patient/caregiver lack of preparedness (HOSPITAL 2, INSURER/PAYER) □ Patient/caregiver limited knowledge and need for informational support (INSURER/PAYER, LONG-TERM CARE 2) □ Staff not obliged to provide support (INSURER/PAYER, HOSPITAL 2) □ Short, unstructured information provided to the patient & caregivers (PRIMARY CARE 2) □ Older patients' impairment (HOSPITAL 1) □ Family's unwillingness to be involved in care (HOSPITAL 1) □ Lack of coordinator that would inform the patient and the caregiver(INSURER/PAYER) □ Nurses are not trained to inform the patients about the care in other settings (INSURER/PAYER)

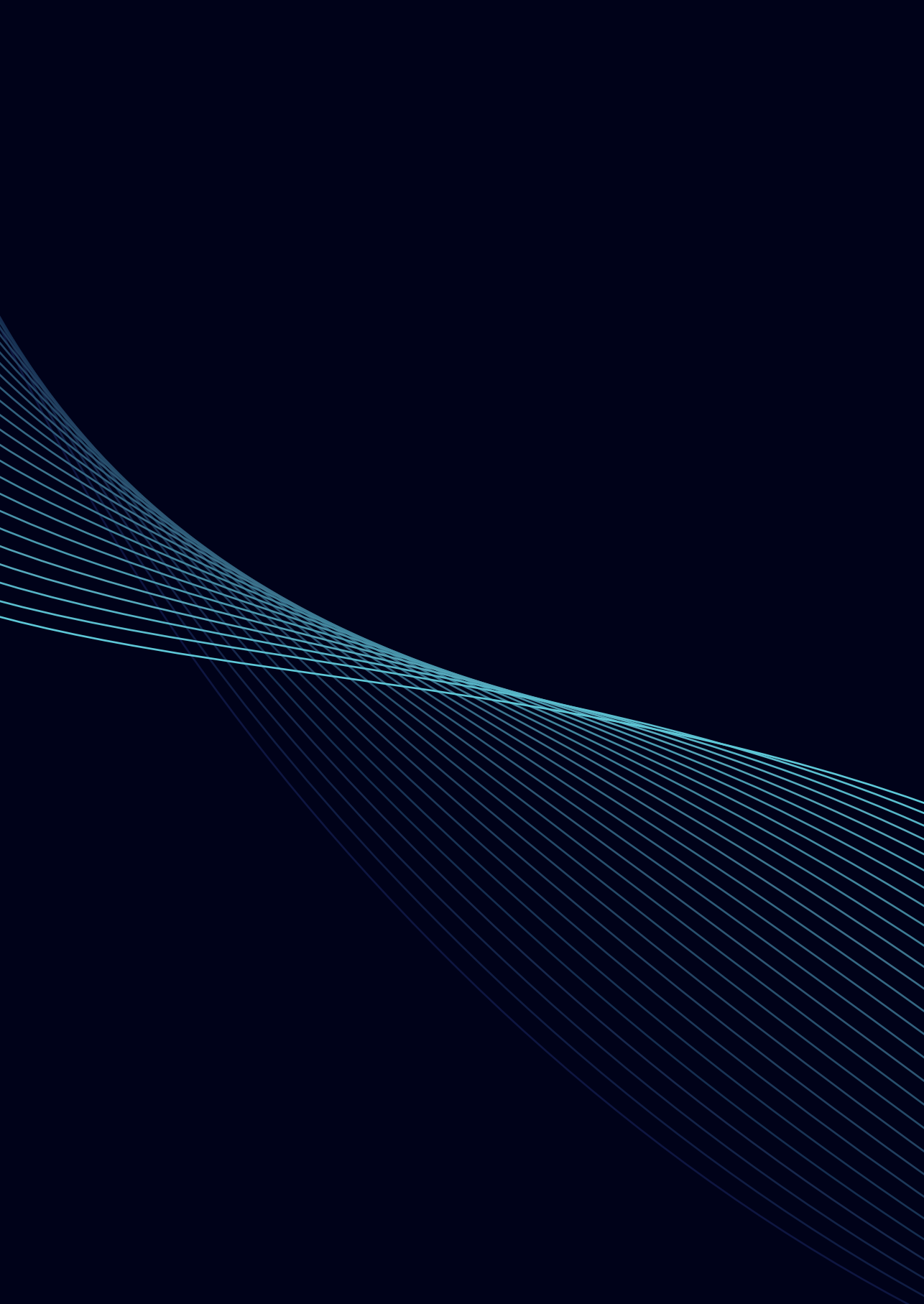
POLAND	
Organizational challenges	**Basic findings from the interviews**
Training and education of staff	□ Need for trainings/education of staff (PRIMARY CARE 2, HOSPITAL 2, LONG-TERM CARE 2, LONG-TERM CARE 1) □ Availability of trainings regarding geriatric/LTC (HOSPITAL 2) □ Availability of trainings for care workers – care assistants for patients with caring needs (HOSPITAL 1) □ Need for providing additional trainings to the care coordinators (if available) (INSURER/PAYER) □ Physicians are trained with regard to patient's information card (INSURER/PAYER)
Limitations in training and education of staff	□ Knowledge of staff regarding the organization of LTC system is limited (LONG-TERM CARE 2, INSURER/PAYER) □ Young medical staff do not poses knowledge about transitional care (HOSPITAL 2) □ No training for nurses on care provision in other settings (INSURER/PAYER)
Telemedicine and e-Health	□ Possibility to monitor some patient groups (HOSPITAL 1, INSURER/PAYER, LONG-TERM CARE 2, LONG-TERM CARE 1, PRIMARY CARE 1) □ Availability of telephone consultations, tele-information (PRIMARY CARE 2, LONG-TERM CARE 2, LONG-TERM CARE 1, PRIMARY CARE 1) □ Usefulness of video consultations (PRIMARY CARE 2, INSURER/PAYER) □ Tele-information enables to access the information instantly and remotely (LONG-TERM CARE 2, LONG-TERM CARE 1) □ Introduction of online platform to transfer the patient's information (PRIMARY CARE 2) □ Need for introduction of online platform to transfer the patient's information - digitalization (INSURER/PAYER) □ Usefulness of telephone consultations to provide referrals (PRIMARY CARE 2) □ E-health may improve communication among parties (PRIMARY CARE 2)
Limitations in telemedicine and e-Health	□ Limited use of telemedicine and e-health (HOSPITAL 1, PRIMARY CARE 1) □ Older adults prefer to avoid using telemedicine (HOSPITAL 2) □ Limited use of telemedicine and e-health (HOSPITAL 1) □ Long-term use of telemedicine is not beneficial (HOSPITAL 1) □ Telemedicine is for physically fit patients (HOSPITAL 1) □ The use of technologies may use scare resources without actual proof it will work (INSURER/PAYER) □ Lack of funding for telemedicine, rather episodic (LONG-TERM CARE 1)
Social care	□ Need for proactive engagement and involvement of social care workers (PRIMARY CARE 2, HOSPITAL 2, HOSPITAL 1, LONG-TERM CARE 2, PRIMARY CARE 1) □ Social care workers are responsible for preparing documents and communicating with LTC facilities (HOSPITAL 2, HOSPITAL 1, LONG-TERM CARE 2, PRIMARY CARE 1) □ Need for social care workers to provide holistic care and support (HOSPITAL 1, INSURER/PAYER, LONG-TERM CARE 2) □ Availability of social workers seem to be high (HOSPITAL 2) □ Need for creating the system of delivering hot meals, socialization and monitoring (INSURER/PAYER) □ Need for social care workers that prepare the receiving setting and family (LONG-TERM CARE 2)

POLAND	
Organizational challenges	**Basic findings from the interviews**
Limitations in social care	□ Insufficient number of social care workers (HOSPITAL 1, LONG-TERM CARE 1, INSURER/PAYER) □ Some social care workers are unresponsive, disorganized (LONG-TERM CARE 2) □ Patients and caregivers do not know how to access help (HOSPITAL 2) □ Social care worker tasks are limited to administrative role (HOSPITAL 1) □ Patient's income may limit access to social care (HOSPITAL 1) □ Lack of social coordinator (INSURER/PAYER) □ Needs of older adults to socialize and thus unnecessary doctors' visits (INSURER/PAYER) □ Lack of the person checking suitability of the home for the discharged patient (INSURER/PAYER) □ Competencies of social care workers are very limited (LONG-TERM CARE 1) □ Lack of coordination between health and social care (INSURER/PAYER) □ Limited number of hospitals with social care workers, if social care worker is unavailable, patients need to organize the care by themselves (PRIMARY CARE 1)
Supporting informal caregivers	□ Need for educational/informational/instrumental support (LONG-TERM CARE 2, HOSPITAL 2) □ Need for the coordinator that would guide the patient and the family throughout the entire process. Provide medical, administrative, legal support (LONG-TERM CARE 2, INSURER/PAYER) □ Need for monitoring patients'/family needs (HOSPITAL 2) □ Some minor help/advice provided by the doctors (INSURER/PAYER) □ Social care workers that prepare the receiving setting and family (LONG-TERM CARE 2) □ Need for respite care services (LONG-TERM CARE 2) □ Availability of trainings for informal caregivers (LONG-TERM CARE 1)
Limitations in supporting informal caregivers	□ Very limited or even no support to the informal caregivers (HOSPITAL 1, INSURER/PAYER, LONG-TERM CARE 2, HOSPITAL 2) □ Patients and family need to search for support/information/help by their own (HOSPITAL 1, LONG-TERM CARE 2, LONG-TERM CARE 1, HOSPITAL 2) □ Supporting caregivers and the patient is not mandatory (LONG-TERM CARE 2, INSURER/PAYER) □ Short, unstructured information for the patient/family (PRIMARY CARE 2) □ Lack of system providing respite care (INSURER/PAYER) □ Providing support is episodic, depending on the funding (LONG-TERM CARE 1)

POLAND	
Financial challenges	**Basic findings from the interviews**
Reimbursement	□ Need for higher reimbursement of LTC facilities (HOSPITAL 1, LONG-TERM CARE 2, LONG-TERM CARE 1, INSURER/PAYER) □ Need for competitive/higher salaries for LTC staff (HOSPITAL 1, LONG-TERM CARE 2, LONG-TERM CARE 1, PRIMARY CARE 1) □ Need for reimbursement for coordination/coordinator (if available) that is satisfactory (HOSPITAL 2, INSURER/PAYER, PRIMARY CARE 2) □ Important role of charities, NGOs, EU and volunteers in providing financial support (PRIMARY CARE 1, LONG-TERM CARE 2, LONG-TERM CARE 1) □ Need for higher number of contracts for nurses providing LTC (PRIMARY CARE 1) □ Introducing additional reimbursement for uploading patients' information on the online platform (PRIMARY CARE 2) □ Fundholding in primary care may improve care e.g., shorten waiting list to the specialist (PRIMARY CARE 2) □ Help from the government to cover the costs of LTC (HOSPITAL 2) □ Respondents' very limited knowledge regarding financing (HOSPITAL 2) □ Reimbursement for individual patient care should be according to the resources used, not according to disability (HOSPITAL 1) □ Need for coordination of financial resources between the health and social system (INSURER/PAYER) □ Perhaps budgets should be used to pay for transitional care? (INSURER/PAYER) □ Perhaps introducing degressive payment system, financing per person-day in LTC (INSURER/PAYER) □ Need for financing programs supporting informal caregivers (LONG-TERM CARE 2) □ Potential solution - development of LTC wards next to hospital - lower reimbursement than hospital (LONG-TERM CARE 1) □ Financing day care home as a local government (LONG-TERM CARE 1) □ Need for reimbursement of care homes by NFZ (LONG-TERM CARE 1) □ Need for additional reimbursement beside per capita payment for family nurses for additional services provided (PRIMARY CARE 1) □ Need for additional quality-based payments (PRIMARY CARE 1)

POLAND	
Financial challenges	**Basic findings from the interviews**
Limitations in reimbursement	- The role of out-of-pocket payments for LTC (HOSPITAL 2, HOSPITAL 1, LONG-TERM CARE 2, LONG-TERM CARE 1, PRIMARY CARE 1) - Low salaries for LTC staff (HOSPITAL 1, LONG-TERM CARE 2, LONG-TERM CARE 1, PRIMARY CARE 1) - Low reimbursements/underestimated contracts for LTC facilities (HOSPITAL 1, INSURER/PAYER, LONG-TERM CARE 2) - Introducing activity-based payments may affect quality (INSURER/PAYER, LONG-TERM CARE 1, PRIMARY CARE 1) o Fee-for-service may lead to overtreatment (INSURER/PAYER) o Activity based payments for nurses could affect quality of services provided (PRIMARY CARE 1) - Fixed contracts with LTC facilities (HOSPITAL 1, LONG-TERM CARE 2) - No separate reimbursement for transitional care (PRIMARY CARE 2, INSURER/PAYER) - Very low reimbursement for the care coordinator (PRIMARY CARE 2) - Not enough contracts for health staff to provide care at home (LONG-TERM CARE 2) - Quality-based reimbursements - Difficulty in measuring quality (INSURER/PAYER) - Capitation may lead to overuse of services, unnecessary care transitions to specialized care (PRIMARY CARE 2) - Unwillingness to contribute by commune to LTC costs (HOSPITAL 1) - Patient's income - social care may refuse to help (HOSPITAL 1) - LTC facilities receive more money for sicker patients = they are preferred over healthier ones (HOSPITAL 1) - Separate reimbursement mechanism for the health and the social system (INSURER/PAYER) - Flat-rate payments may lead to longer hospitalizations (INSURER/PAYER) - Lack of government funding for telemedicine, rather episodic (LONG-TERM CARE 1) - Out-of-pocket payments for telemedicine (LONG-TERM CARE 1) - Lack of government funding for courses for caregivers, rather episodic (LONG-TERM CARE 1) - Additional funding's streams may be episodic (LONG-TERM CARE 1) - Lack of reimbursement of day care homes from National Health Fund (LONG-TERM CARE 1) - Need for satisfactory salary for the care coordinator if such role is introduced (PRIMARY CARE 1)
Penalties	- Penalties could be issued for inappropriate care, adverse events, different kind of abuse, misuse, abnormalities or for not fulfilling the contract, unnecessary referrals and lack of vital information in the referrals (PRIMARY CARE 2, LONG-TERM CARE 2, PRIMARY CARE 1, HOSPITAL 1, LONG-TERM CARE 1) - Existence of penalties is a necessity (LONG-TERM CARE 1) - Respondent unfamiliar with penalties (HOSPITAL 2) - Penalties could be issued for care coordinator, if the role of care coordinator exists (HOSPITAL 2) - Lack of penalties regarding transitional care (INSURER/PAYER) - Penalties should be constructive (LONG-TERM CARE 2) - Penalties should be symbolic (LONG-TERM CARE 2)
Limitations in penalties	- Penalties could be harmful (LONG-TERM CARE 2, LONG-TERM CARE 1, HOSPITAL 2) - Difficulty in measuring quality of care (HOSPITAL 2, INSURER/PAYER) - Penalties are sometimes inadequate (LONG-TERM CARE 2) - Difficulty in estimating responsibility if something goes wrong (PRIMARY CARE 1) - The use of penalties is questionable (PRIMARY CARE 1)

	POLAND
Financial challenges	**Basic findings from the interviews**
Rewards	□ Need for introduction of rewards (LONG-TERM CARE 1, HOSPITAL 2, LONG-TERM CARE 2, PRIMARY CARE 2) □ Coordinator (if available) should be eligible for rewards (HOSPITAL 2, LONG-TERM CARE 2) □ Additional activities that improve quality of care should be rewarded (LONG-TERM CARE 2) □ May improve the care (PRIMARY CARE 2) □ Rewards must be satisfactory (PRIMARY CARE 2) □ Respondent unfamiliar with rewards (HOSPITAL 2) □ Rewards do not exist in the hospital (HOSPITAL 1)
Limitations in rewards	□ No rewards available (LONG-TERM CARE 2, LONG-TERM CARE 1, HOSPITAL 1) □ Problem with measuring quality of care (INSURER/PAYER) □ The use of rewards is questionable (PRIMARY CARE 1)



ADDENDA &

Summary
Streszczenie
Samenvatting
Curriculum Vitae
Publications

SUMMARY

The world's population is aging. Aging is associated with an increased risk of chronic diseases, multimorbidity, geriatric syndromes, disability, and loss of independence. As a result, older adults are more likely to have complex health and care needs, be high users of health and social care services and require care from multiple providers simultaneously. In addition, they are more likely to experience care transitions and are at high-risk of suboptimal care transitions that might result in poor quality of care and errors.

At present, patients and their informal caregivers often experience suboptimal care transitions in long-term care systems. Care transitions can be defined as patient transfer between different locations (e.g. hospital to home) or different levels of care within the same location (e.g. change in the department in the hospital). Poor quality and avoidable care transitions but also avoiding care transitions that are necessary might result in compromised patient safety, outcomes, rehospitalizations, and increased costs for health and care systems. For the reasons given above, optimization of care transitions and, specifically, improving quality of health services and patient safety has been a priority worldwide. Therefore, this dissertation focuses on the organizational and financial aspects that affect the transition in LTC systems, and the challenges related to care transition in selected European countries.

Currently, knowledge of the organizational and financial aspects of care transitions in European countries is scant and inconclusive. Understanding which organizational and financial aspects influence care transitions in LTC systems is crucial for the development of tailored strategies and for the optimization of care transitions. Therefore, this dissertation aims to identify which organizational and financial aspects affect care transitions and to inform the improvement of care transitions by identifying good practices as well as challenges that need to be addressed, in particular in the LTC systems of Germany, the Netherlands and Poland. Moreover, this dissertation aims to develop an assessment tool for assessing the performance of LTC systems in relation to care transition. The research presented in this dissertation was conducted alongside the project Transitional Care Innovation in Senior Citizens (TRANS-SENIOR), funded by the European Union under Horizon 2020, Marie Curie Innovative Training Networks (grant agreement No 812656). The dissertation contains 7 chapters.

Chapter 1 presents the background, main concepts, and rationale for the dissertation. It discusses the trends in aging of the population worldwide and associated with

aging geriatric syndromes, chronic diseases, and disabilities. The chapter also presents care transitions of older adults and their vulnerability to suboptimal care transitions, which has become a policy priority. Further, the chapter provides definitions of main concepts that are either the focus of this dissertation or relate to care transition and transitional care. Specifically, concepts of transitional care, integrated care and care provision aspects are presented, and their relations to care transitions are elaborated. To outline the context of this dissertation, Chapter 1 also outlines the key features of LTC systems in Europe by presenting their key similarities and differences. Subsequently, the context and characteristics of the LTC systems of Germany, the Netherlands and Poland are presented and briefly compared. Finally, the chapter presents the research gap in care transitions in Europe and defines the dissertation aim, objectives and methodology approach. As outlined in Chapter 1, it has been widely recognized that organizational and financial aspects might influence care transitions and care coordination.

Chapter 2 of this dissertation presents the protocol and preliminary findings of the systematic search for literature on care transition in the LTC systems. This chapter aims to gain insight into care provision aspects that might affect care transitions in the LTC system. Two hundred twenty-nine studies were included for further deliberation. Subsequently, publications were divided into: general organizational aspects, organizational disease/condition-specific aspects and financial aspects. The findings suggest that among care provision aspects, particularly organizational and financial aspects influence care transitions. Based on the preliminary results, a model of care provision aspects that affect care transitions is proposed in this chapter. Organizational aspects include communication among involved professional groups, transfer of information and care responsibility of the patient, coordination of resources, training and education of staff, education and involvement of the patient and family, e-Health and social care. Financial aspects include provider payment mechanisms, rewards and penalties. Overall, organizational aspects are more researched than financial aspects. Among organizational aspects, most of the studies discussed the role of coordination of resources and transfer of information. The number of publications on care provision aspects has been steadily increasing over the years. The highest number of publications can be found in North America, specifically the United States, and the lowest number is in Africa and South America. The chapter provides a base for the subsequent chapters. In particular, the model proposed in this chapter is used to frame the subsequent data collection and analysis. However, the chapter is relevant for future full systematic reviews on this topic.

Chapter 3 presents the review of evidence identified in the preliminary systematic literature search that can be related to financial aspects of care transitions among

older adults. The aim of the systematic literature review presented in this chapter is to gain insight into financial aspects affecting care transition of older adults in LTC systems and also to identify the settings in which financial aspects play an important role. Nineteen publications are included in the review. The results suggest that financial incentives influence care transitions either positively by facilitating or negatively by hampering care transitions. Further, review findings suggest that particularly three types of financial incentives are relevant for care transition and care coordination, namely, reimbursement mechanism, reward, and penalty. The results in this chapter also suggest that financial incentives in primary care settings are of particular interest to the researchers focused on care transitions. In addition, most of the publications included in the review measured the impact or influence of reported financial incentives on predetermined indicators. However, due to the heterogeneity of the studies, financial incentives, settings, and indicators, it is impossible to draw firm conclusions on their impact on care coordination and care transition.

Chapter 4 outlines arguments for and against integrating programs and policies that encourage informal care in European LTC systems. To achieve this aim, the chapter analyses policy documents and reports, as well as academic literature. Moreover, this chapter elaborates on the importance of supporting informal caregivers and its influence on care transition experienced by older adults. In doing so, the chapter presents different strategies that may remediate the negative effects of informal caregiving and ultimately improve the quality of life of informal caregivers. Besides, this chapter elaborates on the importance of supporting informal caregivers and its influence on care transition experienced by older adults. The findings in this chapter suggest that even though often favored, encouraging the provision of informal care requires throughout consideration of many aspects, such as the negative impact on informal caregivers and care recipients. Moreover, the chapter reports on strategies for supporting informal caregivers, which are classified into three broad areas: carer compensation and recognition, labor market policy, and carers' physical and mental wellbeing. According to the findings, cash benefits are the most common method of supporting informal caregivers. The chapter also observes that countries in Europe vary considerably in terms of support provided to informal caregivers. Supporting informal caregivers is important not only to remediate the negative effects of caregiving but also to optimize care transitions.

Chapter 5 presents a qualitative study on organizational and financial aspects that affect care transitions in LTC systems in Germany, the Netherlands and Poland. This study aims to explore organizational and financial challenges in care transitions in LTC systems in Germany, the Netherlands and Poland based on country informants' opinions. Twenty-two in-depth semi-structured interviews were carried out with

providers representing primary care, hospital, LTC, and insurers/payers. Our findings suggest that at present, care transitions of older adults in Germany, the Netherlands and Poland are suboptimal, and improvement is needed if these countries aim to deliver safe and seamless care transitions. Some organizational challenges, such as problems with communication, transfer of information and coordination of resources, are similar across these three countries. Among financial challenges particularly, reimbursement plays a crucial role when it comes to care transitions in Germany, the Netherlands and Poland. Nonetheless, the chapter also observes key differences between the factors affecting care transitions in Germany, the Netherlands and Poland that could be partially explained by variations in the provision and financing of care. Further, the results of this chapter suggest that regulative aspects, previously not considered in other studies and frameworks, might also affect care transition and thus, should be taken into consideration e.g. restrictive data protection laws.

Chapter 6 describes an evaluation tool for assessing the performance of LTC systems in relation to care transitions. The chapter aims to present the development of this evaluation tool and its application. The tool is developed in three steps and in accordance with the guidelines on scale development by DeVellis. At first, the conceptual model informed by the systematic literature review in Chapters 2 and 3 was developed. Secondly, item pool generation using deductive and inductive methods took place. Subsequently, the preliminary validation of the tool was performed among the research team members at first, and five experts in research and practice. Following the preliminary validation, the tool was adjusted according to the feedback. As a result, the Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC) was developed. The tool consists of 2 themes, namely, organizational and financial aspects. Organizational aspects are divided into eight categories, and there are three categories regarding financial aspects, as those in the model presented in Chapter 2. Each category entails dedicated items. In total, TCAT-LTC consists of 63 items. Each question/item can be graded and the total score can be calculated. The score indicates the performance of a country's LTC system in relation to care transition. The assessment tool is an important step in promoting accountability and improving the performance of the LTC system in relation to care transitions.

Chapter 7 presents and discusses the main dissertation findings and outlines the implications for policy and research. Understanding which organizational and financial aspects influence care transitions in LTC systems is crucial for the development of tailored strategies and for the optimization of care transitions. Moreover, this chapter outlines methodological reflections related to this dissertation.

STRESZCZENIE

Populacja świata starzeje się. Zjawisko to związane jest ze zwiększonym ryzykiem wystąpienia chorób przewlekłych, wielochorobowości, zespołów geriatrycznych, niepełnosprawności i utraty samodzielności. W rezultacie osoby starsze częściej wykazują złożone potrzeby w zakresie zdrowia i opieki, częściej korzystają z usług opieki zdrowotnej i społecznej oraz częściej wymagają pomocy ze strony wielu świadczeniodawców jednocześnie. Ponadto częściej doświadczają zmiany miejsca świadczenia opieki (przejść), a zatem szczególnie narażone są na ryzyka związane z tymi zmianami.

Obecnie pacjenci i ich nieformalni opiekunowie często doświadczają nieoptymalnej opieki przejściowej w systemach opieki długoterminowej. Opieka przejściowa ma miejsce gdy pacjent przechodzi z jednego ośrodka opieki (np. szpital) do drugiego (np. dom) lub zmienia miejsce w obrębie jednego ośrodka opieki, na przykład zmienia oddział szpitalny na którym przebywa. Niska jakość świadczeń w ramach opieki przejściowej, niepotrzebne przesunięcia pacjentów w inne miejsca świadczenia opieki, ale też zaniechanie potrzebnych zmian tych miejsc mogą skutkować obniżeniem poziomu bezpieczeństwa pacjentów, pogorszeniem stanu ich zdrowia i uzyskiwanych wyników zdrowotnych, ponownymi hospitalizacjami i zwiększonymi kosztami dla systemu opieki zdrowotnej. Dlatego też optymalizacja opieki przejściowej, a w szczególności poprawa jakości usług zdrowotnych i bezpieczeństwa pacjentów, uznana została za priorytetowy cel polityk zdrowotnych.

Obecnie wiedza na temat organizacyjnych i finansowych aspektów opieki przejściowej w krajach europejskich jest niewielka i niejednoznaczna. Zrozumienie, które aspekty organizacyjne i finansowe wpływają na opiekę przejściową w systemach opieki długoterminowej, ma kluczowe znaczenie dla opracowania dostosowanych strategii i optymalizacji opieki przejściowej. Celem rozprawy jest określenie, które aspekty organizacyjne i finansowe mają wpływ na opiekę przejściową, a także poznanie możliwości poprawy jakości opieki przejściowej poprzez określenie dobrych praktyk. Jako cel przyjęto również identyfikację wyzwań, z jakimi musi zmierzyć się opieka przejściowa, szczególnie w systemach opieki długoterminowej w Niemczech, Holandii i Polsce. Ponadto niniejsza rozprawa ma na celu opracowanie narzędzia do oceny funkcjonowania systemów opieki długoterminowej w odniesieniu do opieki przejściowej. Badania przedstawione w rozprawie były prowadzone w ramach projektu Transitional Care Innovation in Senior Citizens (TRANS-SENIOR), finansowanego przez Unię Europejską w ramach programu Horizon 2020, Marie Curie Innovative Training Networks (umowa numer 812656).

Prezentowana rozprawa składa się z siedmiu rozdziałów. W pierwszym, wprowadzającym rozdziale przedstawiono uzasadnienie dla podjęcia tematu, główne koncepcje teoretyczne, na których oparto badania, cel pracy, postawione pytania badawcze oraz zastosowane metody badawcze. Punkt wyjścia dla rozważań podjętych w rozprawie stanowi krótka analiza trendów starzenia się populacji na świecie oraz związanych ze starzeniem się problemów zdrowotnych, w szczególności powiązanych z występowaniem chorób przewlekłych i niepełnosprawności. Następnie w rozdziale pierwszym omówiono koncepcję opieki przejściowej nad osobami starszymi, szczególnie podatnymi na nieoptymalną organizację tejże opieki. Ponadto zdefiniowane zostały najważniejsze pojęcia stanowiące przedmiot rozprawy i odnoszące się do opieki przejściowej oraz wskazano ogólnie na kluczowe aspekty organizacyjne i finansowe świadczenia opieki, także w relacji do opieki przejściowej. Nakreślając kontekst rozprawy, w rozdziale pierwszym przedstawiono również kluczowe cechy systemów opieki długoterminowej w Europie, wskazując na najistotniejsze podobieństwa i różnice, a następnie przedstawiono nieco szczegółowiej systemy opieki długoterminowej w Niemczech, Holandii oraz Polsce, tj. krajów, w których przeprowadzono bardziej szczegółowe badania jakościowe.

Rozdział drugi rozprawy przedstawia protokół i wstępne wyniki systematycznego przeglądu literatury dotyczącego opieki przejściowej dla osób starszych w kierunku identyfikacji aspektów jej świadczenia, które mogą mieć wpływ na jakość opieki przejściowej i jej efektywność w systemach opieki długoterminowej. W ramach przeprowadzonego przeglądu zidentyfikowano dwieście dwadzieścia dziewięć badań, które zostały włączone do dalszej analizy. Następnie publikacje podzielono na dotyczące ogólnych aspektów organizacyjnych, organizacyjnych aspektów związanych z chorobą/stanem chorobowym oraz aspektów finansowych. Aspekty organizacyjne obejmują kwestie komunikacji między zaangażowanymi grupami zawodowymi, przekazywania informacji i odpowiedzialności za opiekę nad pacjentem, koordynacji zasobów, szkolenia i edukacji personelu, edukacji i zaangażowania pacjenta i rodziny, e-Zdrowia oraz zaangażowania opieki społecznej. Aspekty finansowe odnoszą się do mechanizmów wynagradzania świadczeniodawców oraz stosowania bodźców w postaci nagród i kar finansowych. Uwzględnione w przeglądzie badania wskazują, że wśród różnych aspektów świadczenia opieki przejściowej, aspekty organizacyjne i finansowe odgrywają szczególnie ważną rolę. Aspekty organizacyjne częściej stanowią przedmiot badań naukowych niż aspekty finansowe. Większość publikacji odnoszących się do aspektów organizacyjnych wskazuje na kluczowe znaczenie koordynacji zasobów i przekazywania informacji. Zauważono również, że liczba publikacji dotyczących świadczenia opieki przejściowej stale rośnie na przestrzeni ostatnich lat. Najwięcej

zidentyfikowanych publikacji pochodzi ze Ameryki Północnej (głównie Stanów Zjednoczonych), najmniej odnosi się do Afryki i Ameryki Południowej.

Na podstawie uzyskanych w badaniu wyników skonstruowany został model czynników wpływających na opiekę przejściową. Model ten został wykorzystany w kolejnych krokach badawczych do gromadzenia i analizy danych.

Rozdział trzeci poświęcony jest szczegółowej analizie wyników przeprowadzonego przeglądu systematycznego odnoszących się do finansowych aspektów funkcjonowania opieki przejściowej dla osób starszych. Celem badania była nie tylko identyfikacja finansowych czynników wpływających na jakość i dostępność opieki przejściowej, ale także zidentyfikowanie sytuacji, w których aspekty finansowe odgrywają szczególnie ważną rolę. Ostatecznie w przeprowadzonym przeglądzie uwzględniono dziewiętnaście publikacji. Wyniki przeglądu sugerują, że szczególnie trzy rodzaje bodźców finansowych są istotne w kontekście funkcjonowania opieki przejściowej i koordynowanej, a mianowicie sposoby wynagradzania świadczeniodawców oraz nagrody i kary finansowe. W analizowanych publikacjach wskazano również, że bodźce finansowe mogą wpływać zarówno pozytywnie, jak i negatywnie na opiekę przejściową. Ze względu na heterogeniczność badań, rodzajów analizowanych bodźców finansowych, kontekstu systemowego (badania przeprowadzono w różnych systemach ochrony zdrowia) oraz przyjętych wskaźników niemożliwe jest jednak wyciągnięcie na podstawie przeprowadzonego przeglądu jednoznacznych wniosków na temat wpływu bodźców finansowych na koordynację opieki i opiekę przejściową.

Rozdział czwarty poświęcony jest roli oraz obecnej sytuacji opiekunów nieformalnych zapewniających opiekę długoterminową w krajach europejskich. W szczególności, opierając się na analizie literatury naukowej oraz dokumentów i raportów, przedstawiono argumenty za i przeciw integrowaniu programów i polityk, które zachęcają do sprawowania opieki nieformalnej, a także różne strategie, które mogą zaradzić negatywnym skutkom opieki nieformalnej i ostatecznie poprawić jakość życia opiekunów nieformalnych. Strategie wspierania nieformalnych opiekunów wpisują się w trzy szeroko definiowane obszary: wynagrodzenie i inne koncepcje doceniające pracę opiekuna, polityka rynku pracy oraz dobrostan fizyczny i psychiczny opiekunów. Z przeprowadzonego badania wynika, że świadczenia pieniężne stanowią najczęściej wykorzystywaną w praktyce formę wspierania opiekunów nieformalnych. Zauważono jednak, że kraje europejskie różnią się znacznie pod względem wsparcia udzielanego nieformalnym opiekunom. Wyniki analizy przedstawione w tym rozdziale sugerują, że zachęcanie do zapewniania opieki nieformalnej wymaga rozważenia wielu aspektów, m.in. potencjalnego

negatywnego wpływu na nieformalnych opiekunów i odbiorców opieki.

W rozdziale piątym przedstawiono wyniki własnego badania jakościowego przeprowadzonego w trzech krajach: Niemczech, Holandii i Polsce. Badanie miało na celu rozpoznanie wyzwań organizacyjnych i finansowych związanych z opieką przejściową w wymienionych krajach w oparciu o informacje i opinie pozyskane w czasie dwudziestu dwóch pogłębionych, częściowo ustrukturyzowanych wywiadów ze świadczeniodawcami reprezentującymi podstawową opiekę zdrowotną, szpitale, opiekę długoterminową oraz reprezentantów ubezpieczycieli/płatników funkcjonujących w poszczególnych krajach. Uczestnicy badania zgodnie stwierdzili, że obecnie opieka przejściowa nad osobami starszymi nie jest optymalna i wymaga podjęcia działań naprawczych, jeśli kraje chcą zapewnić bezpieczną i wysokiej jakości opiekę przejściową. Niektóre wyzwania są podobne we wszystkich trzech krajach: organizacyjne, takie jak problemy z komunikacją, przekazywaniem informacji i koordynacją zasobów, czy finansowe w szczególności powiązane z wynagradzaniem świadczeniodawców. Niemniej można zauważyć także znaczące różnice między czynnikami wpływającymi na opiekę przejściową w Niemczech, Holandii i Polsce, które częściowo mogą być wytłumaczone różnicami w świadczeniu i finansowaniu opieki długoterminowej. Na przykład, tylko polscy uczestnicy badania zwrócili uwagę na ważną rolę organizacji charytatywnych, pozarządowych oraz wolontariatu. Uczestnicy badania wskazali również na aspekty regulacyjne, nieuwzględnione do tej pory w innych badaniach, które wpływają na funkcjonowanie opieki przejściowej, takie jak np. restrykcyjne regulacje odnoszące się do ochrony danych osobowych.

Analiza literatury (rozdziały od drugiego do czwartego) oraz wyniki pozyskane we własnym badaniu jakościowym (rozdział piąty) stworzyły ramy dla opracowania narzędzia ewaluacyjnego do oceny funkcjonowania systemów opieki długoterminowej w odniesieniu do opieki przejściowej. Narzędzie to, proces jego rozwoju oraz możliwości zastosowania zaprezentowano w rozdziale szóstym. Narzędzie do oceny opieki przejściowej w opiece długoterminowej - Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC) opracowywane zostało w trzech krokach i zgodnie z wytycznymi rozwoju skal proponowanymi przez DeVellis. W pierwszym kroku opracowano model koncepcyjny oparty na systematycznym przeglądzie literatury. W drugim, posługując się metodami dedukcyjnymi i indukcyjnymi, wygenerowano pulę pozycji (zagadnień) odnoszących się do organizacyjnych oraz finansowych aspektów które mogą mieć wpływ na opiekę przejściową dla osób starszych. W ostatnim kroku przeprowadzono wstępną walidację narzędzia przez członków zespołu badawczego oraz pięciu ekspertów spoza zespołu, zaznajomionych z badaniami i praktyką w zakresie

opieki długoterminowej i przejściowej. W wyniku przeprowadzonej wstępnej walidacji narzędzie zostało zmodyfikowane zgodnie z sugestiami ekspertów. Narzędzie TCAT-LTC koncentruje się na dwóch głównych obszarach, a mianowicie na czynnikach organizacyjnych i finansowych. W odniesieniu do czynników organizacyjnych wyróżniono osiem głównych kategorii podlegających ocenie, a w przypadku czynników finansowych trzy, zgodnie z modelem przedstawionym w rozdziale drugim. W ramach poszczególnych kategorii zaproponowano od 3 do 10 szczegółowych wskaźników podlegających ocenie. W sumie TCAT-LTC umożliwia ocenę sześćdziesięciu trzech różnych aspektów organizacyjnych i finansowych istotnych z punktu widzenia funkcjonowania opieki przejściowej w opiece długoterminowej. Ogólny wynik wskazuje na funkcjonowanie krajowego systemu opieki długoterminowej w odniesieniu do opieki przejściowej. Opracowanie narzędzia należy uznać za ważny krok w kierunku odpowiedzialnej i opartej na faktach ewaluacji funkcjonowania systemów opieki długoterminowej w odniesieniu do opieki przejściowej.

W Rozdziale siódmym przedstawiono i omówiono główne ustalenia rozprawy oraz przedstawiono implikacje dla polityki i dalszych badań naukowych. Zrozumienie, które aspekty organizacyjne i finansowe wpływają na opiekę przejściową w systemach opieki długoterminowej ma kluczowe znaczenie dla opracowania dostosowanych strategii i optymalizacji opieki przejściowej w praktyce. Ponadto w rozdziale tym przedstawiono refleksje metodologiczne związane z niniejszą rozprawą.

SAMENVATTING

De wereldbevolking vergrijst. Veroudering wordt in verband gebracht met een verhoogd risico op chronische ziekten, multimorbiditeit, ouderdomssyndromen, invaliditeit en verlies van onafhankelijkheid. Bijgevolg hebben oudere volwassenen meer kans op complexe gezondheids- en zorgbehoeften, zijn ze veel gebruikers van gezondheids- en sociale zorgdiensten en hebben ze tegelijkertijd zorg nodig van meerdere aanbieders. Bovendien hebben ze meer kans op zorgovergangen en lopen ze een groter risico op suboptimale zorgovergangen die kunnen leiden tot een slechte kwaliteit van zorg en fouten.

Op dit moment ervaren patiënten en hun mantelzorgers vaak suboptimale zorgovergangen in systemen voor langdurige zorg. Zorgovergangen kunnen worden gedefinieerd als patiëntenoverdracht tussen verschillende locaties (bijv. ziekenhuis naar huis) of verschillende zorgniveaus binnen dezelfde locatie (bijv. verandering van afdeling in het ziekenhuis). Zorgovergangen van slechte kwaliteit en vermijdbare zorg, maar ook het vermijden van noodzakelijke zorgovergangen, kunnen leiden tot verminderde patiëntveiligheid, resultaten, heropnames en hogere kosten voor gezondheids- en zorgstelsels. Om bovengenoemde redenen is de optimalisatie van zorgtransities en met name de verbetering van de kwaliteit van de gezondheidsdiensten en de patiëntveiligheid wereldwijd een prioriteit geweest. Daarom richt dit proefschrift zich op de organisatorische en financiële aspecten die van invloed zijn op de transitie in langdurige zorgsystemen, en op de uitdagingen met betrekking tot zorgtransitie in geselecteerde Europese landen.

Hoofdstuk 1 presenteert de achtergrond, belangrijkste concepten en grondgedachte voor het proefschrift. Het bespreekt de trends in de vergrijzing van de bevolking wereldwijd en in verband met ouder wordende geriatrische syndromen, chronische ziekten en handicaps. Het hoofdstuk presenteert ook zorgovergangen van ouderen en hun kwetsbaarheid voor suboptimale zorgovergangen, wat een beleidsprioriteit is geworden. Verder geeft het hoofdstuk definities van de belangrijkste concepten die ofwel centraal staan in dit proefschrift, ofwel betrekking hebben op zorgovergang en overgangszorg. Concreet worden concepten van transitiezorg, integrale zorg en zorgverleningsaspecten gepresenteerd en wordt hun relatie met zorgtransities uitgewerkt. Om de context van dit proefschrift te schetsen, schetst hoofdstuk 1 ook de belangrijkste kenmerken van LTC-systemen in Europa door hun belangrijkste overeenkomsten en verschillen te presenteren. Vervolgens worden de context en kenmerken van de langdurige zorgsystemen van Duitsland, Nederland en Polen gepresenteerd en kort vergeleken. Ten slotte presenteert het hoofdstuk de onderzoekslacune in zorgtransities in Europa en definieert het

doel, de doelstellingen en de methodologische benadering van het proefschrift. Zoals uiteengezet in hoofdstuk 1, wordt algemeen erkend dat organisatorische en financiële aspecten van invloed kunnen zijn op zorgovergangen en zorgcoördinatie.

Hoofdstuk 2 van dit proefschrift presenteert het protocol en de voorlopige bevindingen van de systematische zoektocht naar literatuur over zorgtransitie in de LDZ-systemen. Dit hoofdstuk beoogt inzicht te krijgen in zorgverleningsaspecten die van invloed kunnen zijn op zorgtransities in het LDZ-systeem. Tweehonderdnegenentwintig studies werden opgenomen voor verder overleg. Vervolgens zijn de publicaties onderverdeeld in: algemene organisatieaspecten, organisatieziekte-/aandoeningspecifieke aspecten en financiële aspecten. De bevindingen suggereren dat onder zorgverleningsaspecten met name organisatorische en financiële aspecten van invloed zijn op zorgovergangen. Op basis van de voorlopige resultaten wordt in dit hoofdstuk een model voorgesteld van zorgverleningsaspecten die van invloed zijn op zorgtransities. Organisatorische aspecten zijn onder meer communicatie tussen betrokken beroepsgroepen, overdracht van informatie en zorgverantwoordelijkheid van de patiënt, coördinatie van middelen, training en opleiding van personeel, opleiding en betrokkenheid van de patiënt en familie, e-Health en sociale zorg. Financiële aspecten zijn onder meer betalingsmechanismen, beloningen en boetes van aanbieders. Over het algemeen worden organisatorische aspecten meer onderzocht dan financiële aspecten. Wat de organisatorische aspecten betreft, bespraken de meeste studies de rol van de coördinatie van middelen en de overdracht van informatie. Het aantal publicaties over zorgverleningsaspecten neemt in de loop der jaren gestaag toe. Het hoogste aantal publicaties is te vinden in Noord-Amerika, met name de Verenigde Staten, en het laagste aantal in Afrika en Zuid-Amerika. Het hoofdstuk biedt een basis voor de volgende hoofdstukken. In het bijzonder wordt het in dit hoofdstuk voorgestelde model gebruikt om de daaropvolgende gegevensverzameling en -analyse te kaderen. Het hoofdstuk is echter relevant voor toekomstige volledige systematische reviews over dit onderwerp.

Hoofdstuk 3 presenteert het overzicht van bewijsmateriaal dat is gevonden in het voorlopige systematische literatuuronderzoek dat verband kan houden met financiële aspecten van zorgovergangen bij ouderen. Het doel van het systematische literatuuronderzoek dat in dit hoofdstuk wordt gepresenteerd, is om inzicht te krijgen in financiële aspecten die van invloed zijn op de zorgtransitie van ouderen in langdurige zorgsystemen en ook om de omgevingen te identificeren waarin financiële aspecten een belangrijke rol spelen. In de review zijn negentien publicaties opgenomen. De resultaten suggereren dat financiële prikkels zorgovergangen positief beïnvloeden door zorgovergangen te vergemakkelijken of negatief door

zorgovergangen te belemmeren. Verder suggereren de evaluatiebevindingen dat met name drie soorten financiële prikkels relevant zijn voor zorgtransitie en zorgcoördinatie, namelijk terugbetalingsmechanisme, beloning en boete. De resultaten in dit hoofdstuk suggereren ook dat financiële prikkels in de eerstelijnszorg van bijzonder belang zijn voor de onderzoekers die zich richten op zorgovergangen. Bovendien maten de meeste publicaties die in de review zijn opgenomen de impact of invloed van gerapporteerde financiële prikkels op vooraf bepaalde indicatoren. Vanwege de heterogeniteit van de onderzoeken, financiële prikkels, instellingen en indicatoren is het echter onmogelijk om harde conclusies te trekken over hun impact op zorgcoördinatie en zorgtransitie.

Hoofdstuk 4 schetst argumenten voor en tegen het integreren van programma's en beleidsmaatregelen die informele zorg stimuleren in Europese langdurige zorgsystemen. Om dit doel te bereiken, analyseert het hoofdstuk beleidsdocumenten en -rapporten, evenals academische literatuur. Bovendien gaat dit hoofdstuk dieper in op het belang van het ondersteunen van mantelzorgers en de invloed daarvan op de zorgtransitie die ouderen ervaren. Daarbij presenteert het hoofdstuk verschillende strategieën die de negatieve effecten van mantelzorg kunnen verhelpen en uiteindelijk de kwaliteit van leven van mantelzorgers kunnen verbeteren. Daarnaast gaat dit hoofdstuk dieper in op het belang van het ondersteunen van mantelzorgers en de invloed daarvan op de zorgtransitie die ouderen ervaren. De bevindingen in dit hoofdstuk suggereren dat, hoewel vaak de voorkeur wordt gegeven, het stimuleren van het verlenen van informele zorg vereist dat veel aspecten in overweging worden genomen, zoals de negatieve impact op mantelzorgers en zorgontvangers. Bovendien rapporteert het hoofdstuk over strategieën voor het ondersteunen van mantelzorgers, die zijn onderverdeeld in drie grote gebieden: compensatie en erkenning van mantelzorgers, arbeidsmarktbeleid en het fysieke en mentale welzijn van mantelzorgers. Volgens de bevindingen zijn uitkeringen de meest gebruikelijke methode om mantelzorgers te ondersteunen. Het hoofdstuk constateert ook dat landen in Europa aanzienlijk verschillen in de ondersteuning van mantelzorgers. Het ondersteunen van mantelzorgers is niet alleen belangrijk om de negatieve effecten van mantelzorg te verhelpen, maar ook om zorgovergangen te optimaliseren.

Hoofdstuk 5 presenteert een kwalitatief onderzoek naar organisatorische en financiële aspecten die van invloed zijn op zorgovergangen in langdurige zorgsystemen in Duitsland, Nederland en Polen. Deze studie heeft tot doel de organisatorische en financiële uitdagingen bij zorgtransities in langdurige zorgsystemen in Duitsland, Nederland en Polen te onderzoeken op basis van de mening van landinformanten. Er zijn tweeëntwintig semi-gestructureerde

diepte-interviews gehouden met aanbieders van eerstelijnszorg, ziekenhuis, LTC en verzekeraars/betalers. Onze bevindingen suggereren dat de zorgovergangen van ouderen in Duitsland, Nederland en Polen op dit moment niet optimaal zijn en dat er verbetering nodig is als deze landen streven naar veilige en naadloze zorgovergangen. Sommige organisatorische uitdagingen, zoals problemen met communicatie, overdracht van informatie en coördinatie van middelen, zijn vergelijkbaar in deze drie landen. Met name op het gebied van financiële uitdagingen speelt terugbetaling een cruciale rol als het gaat om zorgovergangen in Duitsland, Nederland en Polen. Desalniettemin ziet het hoofdstuk ook belangrijke verschillen tussen de factoren die van invloed zijn op zorgovergangen in Duitsland, Nederland en Polen, die deels kunnen worden verklaard door variaties in de verstrekking en financiering van zorg. Verder suggereren de resultaten van dit hoofdstuk dat regulerende aspecten, die eerder niet in andere onderzoeken en kaders werden overwogen, ook van invloed kunnen zijn op de zorgtransitie en dus in overweging moeten worden genomen, b.v. restrictieve gegevensbeschermingswetten.

Hoofdstuk 6 beschrijft een evaluatietool voor het beoordelen van de prestaties van langdurige zorgsystemen in relatie tot zorgtransities. Het hoofdstuk heeft tot doel de ontwikkeling van dit evaluatie-instrument en de toepassing ervan te presenteren. De tool is ontwikkeld in drie stappen en in overeenstemming met de richtlijnen voor schaalontwikkeling door DeVellis. In eerste instantie werd het conceptuele model ontwikkeld dat is gebaseerd op het systematische literatuuronderzoek in de hoofdstukken 2 en 3. Ten tweede vond het genereren van itempools plaats met behulp van deductieve en inductieve methoden. Vervolgens is de voorlopige validatie van de tool uitgevoerd onder eerst de leden van het onderzoeksteam en vijf experts in onderzoek en praktijk. Na de voorlopige validatie werd de tool aangepast aan de hand van de feedback. Als resultaat hiervan is de Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC) ontwikkeld. De tool bestaat uit 2 thema's, namelijk organisatorische en financiële aspecten. Organisatorische aspecten zijn onderverdeeld in acht categorieën en er zijn drie categorieën met betrekking tot financiële aspecten, zoals die in het model gepresenteerd in hoofdstuk 2. Elke categorie heeft specifieke items. In totaal bestaat TCAT-LTC uit 63 items. Elke vraag/item kan worden beoordeeld en de totale score kan worden berekend. De score geeft de prestaties aan van het LTC-systeem van een land met betrekking tot zorgtransitie. Het beoordelingsinstrument is een belangrijke stap in het bevorderen van verantwoording en het verbeteren van de prestaties van het LDZ-systeem met betrekking tot zorgtransities.

Hoofdstuk 7 presenteert en bespreekt de belangrijkste bevindingen van het proefschrift en schetst de implicaties voor beleid en onderzoek. Inzicht in welke

organisatorische en financiële aspecten van invloed zijn op zorgtransities in langdurige zorgsystemen is cruciaal voor het ontwikkelen van strategieën op maat en voor het optimaliseren van zorgtransities. Bovendien schetst dit hoofdstuk methodologische reflecties met betrekking tot dit proefschrift.

IMPACT STATEMENT

Suboptimal care transitions of older adults in long-term care (LTC) systems are common and might threaten patient safety and result in compromised outcomes (Forster et al., 2003; Jasinarachchi et al., 2009; van Walraven et al., 2011; WHO, 2016). However, majority of suboptimal care transitions could be prevented (Kapoor et al., 2019). Organizational aspects such as poor provider communication and transfer of information are expected to potentially lead to poor care transitions of older adults (Hastings & Heflin, 2005; Jing, Young & Williams, 2014). Financial aspects are also assumed to play an important role in care transitions based on long-established economic theories such as the microeconomic theory (Arrow, 1963) and the theory of principal-agent behavior (Jensen & Mechling, 1976). Financial incentives for improving care coordination are suggested to be key factors in optimizing care transition (Busse & Mays, 2008; Glasziou et al., 2012; Stokes et al., 2018; Tsiachristas et al., 2013).

Nonetheless, these expectations and assumptions have not been systematically explored. In particular, little empirical evidence has been provided about the different organizational and financial aspects affecting care transitions. Available evidence has been rather sparse and inconclusive. In addition, none of the available studies has systematized the knowledge and provided an overview of organizational and financial aspects relevant to care transitions. Besides, there has been a paucity of research on what different stakeholders consider important barriers and facilitators to care transitions in LTC systems.

The need for new knowledge on how to improve care transitions is the primary motivation for the TRANS-SENIOR project and this dissertation. Specifically, this dissertation identifies which organizational and financial aspects influence care transitions. The dissertation also informs the improvement of care transitions by identifying good practices as well as challenges that need to be addressed. The dissertation has a European orientation as well as a specific focus on the LTC systems of Germany, the Netherlands and Poland.

The dissertation findings are relevant to future policy, practice and research in LTC. The impacts of the dissertation findings for different stakeholder groups are subsequently outlined.

Policy impact

The dissertation is a source of information for policymakers who aim to optimize care transitions of older adults. It underlines the areas in the LTC system that

need special attention and proposes solutions that could be applied in various European settings. Moreover, it provides an analysis of current organizational and financial challenges that affect care transitions in the German, Dutch and Polish LTC systems. Policymakers might use this information to develop new policies and thus, address gaps in their LTC systems. Addressing challenges in LTC systems is crucial if governments want to improve quality of care and life of older adults and their caregivers. Improving the lives of older people, their families and entire communities is in line with the UN Decade of Healthy Ageing (2021-2030). These goals will not be met without addressing the LTC provision in the countries. Furthermore, new policies might not only improve the quality of life, wellbeing and patient satisfaction but also reduce health care costs and improve fiscal sustainability. Besides, even though this dissertation has a European orientation, our findings provide important information to policymakers outside of Europe as they uncover that even seemingly well-financed and well-performing LTC systems struggle to provide optimal care transitions to older adults.

Impact for LTC management and provision

Findings presented in this dissertation might also increase awareness of LTC managers and providers about important aspects that affect care transitions. Knowledge on organizational and financial aspects might help managers to improve practices in their settings and, as a result, optimize care transitions of older adults. Improving care transitions in one setting might have a domino effect on care provided in another location or by another provider. Thus, it will ultimately have an impact not only on the experiences of the patients and their family caregivers but also on other professionals that are involved in the care process by reducing frustration associated with the functioning of the LTC system.

Scientific impact

This dissertation addresses a research gap in care transition by providing an overview of organizational and financial aspects affecting care transitions in LTC systems. Moreover, it presents barriers and facilitators that influence care transitions in selected European countries, namely Germany, the Netherlands and Poland. Thus, the dissertation is an important starting point for future qualitative and quantitative studies on the topic. In particular, the systematic literature review in this dissertation systematizes and classifies available literature. Qualitative in-depth interviews with providers and insurers/payers build further on these findings by studying in detail barriers and facilitators that influence care transitions in the German, Dutch and Polish LTC systems. The Transitional Care Assessment Tool in Long-Term Care presented in this dissertation is the first-ever tool for assessing the performance of LTC systems in relation to care transition. This tool provides

researchers with means to assess the performance of the LTC system they study and outline areas in LTC that require attention.

Societal impact

The findings in this dissertation are important for society as well. Understanding barriers and facilitators that affect care transitions is an essential step for developing tailored strategies for improving the LTC system. Well-developed and tailored strategies can help to cater care delivery to the needs of care users and support the optimization of care transitions. This is particularly of high relevance to the patients and their informal caregivers since optimal care transitions are essential for good patient outcomes, improved patient satisfaction and patient safety. Besides, the proposed assessment tool for assessing the performance of LTC systems in relation to care transition is an important step in promoting accountability of different stakeholders. This is particularly important for older adults that experience violations of human rights, exposure to abuse, neglect and disrespect in the LTC care system. Holding accountable the governments and organizations for the care they provide will benefit not only the patient but also the providers.

ACKNOWLEDGEMENTS

As my PhD comes to an end, I cannot help but be filled with a sense of immense gratitude, and there are so many people in my life that I am grateful for. They supported, encouraged, inspired, and illuminated my path throughout this PhD journey.

I would like to express my deepest appreciation to each person who provided me with unwavering support throughout my PhD, making it a remarkable, memorable, and exciting journey. At first, my sincere gratitude goes to my supervisory team Prof. dr. Christoph Sowada, dr. Ewa Kocot, Prof. dr. Silvia Evers and Prof. dr. Milena Pavlova. This endeavor would not have been possible without your continuous guidance and encouragement. Thank you for your patience and for giving me the possibility to learn from you. To Prof. dr. Christoph Sowada, my greatest advocate. Thank you for always representing my interest, your constructive feedback and eye for details. To dr. Ewa Kocot, my committed counselor. Thank you for always being there for me to discuss not only PhD but also other challenges I faced during those years. To Prof. dr. Silvia Evers, your knowledge and vast experience have encouraged, empowered, and inspired me academically. To Prof. dr. Milena Pavlova, my greatest advisor and mentor. My PhD journey would not be the same without you, your support and continuous engagement has profoundly shaped my academic journey.

Also, special thanks to the TRANS-SENIOR Research Consortium and the European Union for this lifetime opportunity to be part of an international team and to conduct world-class research. It is a badge of honor to have been a researcher, within this elite Marie Skłodowska-Curie innovation program, an exceptional chance that has expanded my horizons significantly. I would like to extend my sincere thanks to all TRANS-SENIOR colleagues for making memories that will last forever. We have been through this together.

I am deeply indebted to my parents. Without my mother's (Brygida) and father's (Aleksander) commitment and sacrifice I would have never had a chance to move to the Netherlands for my studies back in 2012. Moving to another country, and specifically to Maastricht, was a 'life changing event' for me that shaped me into the person I am today. Special thanks also to my grandparents who were always a source of inspiration for me as a person and in my research.

My utmost gratitude also goes to my friends who were always there for me when I needed. Mustafa, Linsday, Iwona, Anne, Nannan, Sabina, Kamila, Sara and Michał

thank you for believing in me and for your constant support. Mustafa, thank you for always encouraging me to aim high, I felt your support even though you were more than 2000 km away. Linsday, no one can understand better how it is to be an Early Stage Researcher, thank you for all the conversations we had and great memories we made. Sabina, from the first day at the Doctoral School I knew that we would get along. We started together and we completed this journey together. Iwona, I am so grateful to have someone like you in my life, you are my great source of inspiration not only in academia but also personally. To all my friends from the PhD Student Association, joining PhD Student Association was one of the best decisions in my life. Kinga, Paulina, Wojtek and Maciej thank you for everything! I will keep the memories from Kobierzyńska office and Biprostal office forever in my heart! We had a ball!

I would like to also say thank you to all my colleagues from the Jagiellonian University Medical College and Maastricht University for their continuous administrative, organizational, informational, and emotional support. Without your engagement I would not be able to do this joint PhD. Special thanks to Janet, Suus, Brigitte, Justyna, Monika and Sylwia for always being there for me when I had questions and needed their assistance. Thanks also to my colleagues at the Department of Health Economics and Social Security at the Jagiellonian University, for warm welcome in 2019 and for all the feedback and guidance you provided me with during my PhD. Moreover, I am very grateful for Prof. dr. Grażyna Jasieńska for being my mentor, your academic work is the source of inspiration for me.

I would like to warmly thank the members of the assessment committee, consisting of Prof. dr. Sandra Zwakhalen, Prof. dr. Iwona Kowalska-Bobko, Prof. dr. Ceu Mateus, Prof. dr. Jos Schols, Prof. dr. Agnieszka Sowa-Kofta and Prof. dr. Barbara Więckowska. Thank you for reading and reviewing my dissertation.

&

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PUBLICATIONS

Wieczorek, E., Evers, S., Kocot, E., Sowada, C., & Pavlova, M. (2022). Assessing policy challenges and strategies supporting informal caregivers in the European Union. *Journal of Aging & Social Policy*, *34*(1), 145–160. https://doi.org/10.1080/08959420.2021.1935144

Wieczorek, E., Kocot, E., Evers, S., Sowada, C., & Pavlova, M. (2022a). Do financial aspects affect care transitions in long-term care systems? A systematic review. *Archives of Public Health*, *80*. https://doi.org/10.1186/s13690-022-00829-y

Wieczorek, E., Kocot, E., Evers, S., Sowada, C., & Pavlova, M. (2022b). Key care provision aspects that affect care transition in the long-term care systems: Preliminary review findings. *International Journal of Environmental Research and Public Health*, *19*(11), 6402. https://doi.org/10.3390/ijerph19116402

Wieczorek, E., Kocot, E., Evers, S., Sowada, C., & Pavlova, M. (2023). Development of a tool for assessing the performance of long-term care systems in relation to care transition: Transitional Care Assessment Tool in Long-Term Care (TCAT-LTC). *BMC Geriatrics* (accepted for publication)