

ANALYSIS OF THE
HEALTH SYSTEM IN SLOVENIA

Optimizing Service Delivery

Final Report

Optimizing service delivery

Final report
November 2015



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Optimizing service delivery

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Key findings and priority areas

Slovenia has a strong primary care foundation to address the changing health and health care needs of the population but faces the challenge of fragmentation of service organization and delivery. Indirect evidence points to the likely positive impacts of national level programmes on selected measures of population health, including the 2002 national programme for the primary prevention of cardiovascular disease, and on measures of hypertension control and diabetes detection. Early evidence also suggests that family medicine model practices may have strengthened the early detection of chronic diseases and disease control (chronic obstructive pulmonary disease, cardiovascular disease).

Our review of service delivery patterns in Slovenia and of key facilitators and barriers towards strengthening the interfaces between primary and secondary care, and between health and long-term care, identified several opportunities to optimize service delivery in the Slovenian health system. Family medicine model practices were widely regarded as a promising step in improving care for those with chronic and multiple care needs as they allow for a more systematic multi-disciplinary team approach to patient care. As this model is rolled out further there may be a need to develop an integrated strategy to support systematic change and to clarify the roles and responsibilities of the different providers involved in order to optimize care continuity and coordination.

In order to strengthen primary care further there may be an opportunity to test consultation liaison more strategically to support decision-making in primary care settings. This can build on the experiences of the University Medical Centre Ljubljana, which has established joint consultations between care levels. Developing this model further will require assessment of the preconditions that allow for this approach to work at UMC Ljubljana and the extent to which these conditions are replicable across other settings in Slovenia.

Internationally, there is an increased emphasis on moving care out of hospital into the community. Based on the evidence collected in this review there may be a need to enhance the scope of practice for community nurses to optimize patient-centred care. Such a move will require further exploration of how other countries have managed this change to understand conditions for transferability to the Slovenian context.

There is a widely acknowledged need to strengthen information technology to enable information-sharing across levels, reduce duplication and enhance care continuity. The proposed piloting within the National Diabetes Plan of sharing diabetes-related data through electronic health records from the autumn of 2015

provides an opportunity for the systematic evaluation of the implementation and uptake of electronic health records to inform the wider roll-out of the system.

International evidence suggests that comprehensive support after discharge can reduce readmissions to hospital, might improve outcomes and could potentially control costs. Stakeholders consulted for this review cited the “care continuum and coordination nurses” introduced in the North West region as an example of good practice. This experience provides an opportunity for wider roll-out of this model across Slovenia, although doing so will require systematic assessment of preconditions within which this model works in the North West region and the extent to which the conditions are replicable across other settings in Slovenia.

Finally, there was a widely perceived lack of standardization of processes and procedures for patient handover between care levels. Slovenia already has systems in place that can promote standardization, for example in the case of discharge planning. There is a need to revisit existing standards and regulations in order to enhance awareness and strengthen implementation as a test case to identify key enablers and so ensure adherence among providers.

Executive summary

Slovenia has a strong primary care foundation to address the changing health and health care needs of the population but faces the challenge of fragmentation of service organization and delivery.

- Like many other countries in Europe, Slovenia is facing the combined challenges of an ageing population coupled with a rising burden of chronic diseases, growing expectations and technological advances against a background of increasing financial constraints and the need to ensure that resources are spent efficiently.
- Slovenia's primary care system has been rated to be strong and to provide a promising foundation to address these challenges. At the same time, a core concern for the Slovenian health system remains fragmentation of service organization and delivery, which poses particular challenges given the changing demographic and health profile of the population.
- There is a need to strengthen the coordination and collaboration between different providers and across organizations and institutions along the care pathway, from prevention and early detection to the management of multiple care needs by bridging health and long-term care.
- This report aims to identify key facilitators and barriers towards optimizing the interfaces between primary and secondary care, and between health and long-term care.
- The review provides: (i) an analysis of the key facilitators and blockages for better coordination at the primary–secondary care interface; (ii) an assessment of the main challenges faced by people with multiple care needs as they pass through the system; and (iii) a description of the current long-term care arrangements that are in place in Slovenia. It uses three principal methods and data sources: document review, analysis of routine data and newly collected qualitative data using focus groups, interviews and a survey of providers and stakeholders in the Slovenia health system.

Trends in potentially avoidable hospital admissions for selected chronic conditions during 2009–2013, as an indicator of the performance of primary care in Slovenia, point to improvements in some areas.

- Decreasing rates of hospital admissions for chronic obstructive pulmonary disease (COPD) likely reflect a declining trend in adult smoking prevalence following the introduction of smoking restrictions in the workplace and in public spaces in 2007, while

there is also some evidence of earlier detection and treatment of COPD through family medicine model practices from 2011.

- Decreasing rates of hospital admissions for hypertension and a small increase in the rates for congestive heart failure (CHF) likely reflect policies introduced in 2002 as part of a national programme for the primary prevention of cardiovascular diseases. There is evidence of improved control of hypertension in primary care between 2002 and 2008, while available data also suggest a lack of awareness of and knowledge about CHF in the general population in Slovenia and a need to strengthen understanding among health professionals, in particular among nurses who deliver patient education.

Focus groups with key stakeholders revealed a range of barriers towards better coordination at the primary–secondary care interface in the Slovenian health system.

- Using diabetes care as a case study for addressing chronic disease in Slovenia, discussions with registered nurses, specialist physicians in family medicine, community nurses, diabetologists and local patients' associations revealed a range of factors that were perceived to prevent health care providers from delivering good quality care in line with the 2011 national diabetes guidelines.
- Perceived blockages to implementing best practice in diabetes care were: time (*high volume of patients in primary care*), capacity and infrastructure (*lack of appropriate information technology*), organizational constraints (*lack of clarity about roles and responsibilities; of access to specialist services; of continuity in primary care; of communication between primary and secondary care; and of professional autonomy of community nurses*), and environmental constraints (*reimbursement structure perceived to incentivize acute health problems and interventions over advising or counselling patients*).

Interviews with providers at the different tiers of the system on providing quality care for people with multiple care needs identified several opportunities to build upon promising examples of good practice.

- The day-to-day management of service users with multiple care needs was perceived to pose a range of challenges, as reported by health care professionals in different health care settings in three regions in Slovenia (Ljubljana, North West and North East).
- Providers reported a perceived lack of standardized processes and procedures for the handover of patients between providers and care levels, and shortcomings in the way the different levels shared information in terms of content, structure and

mode of transfer. More integrated information systems were seen to be fundamental to strengthen coordination between care levels, which was believed to be particularly important to enhance the quality and safety of patient care, especially for those with multiple care needs.

- There was a perceived need for better guidance and protocols to help meet the multiple needs of complex older patients, although there was recognition that implementation of such guidance might be faced with professional resistance. Based on the (international) evidence, it appears to be important to consider seeking staff views during guideline development in order to enable “buy-in” and promote implementation and adherence.
- Identified examples of good practice at the primary care level included the family medicine model practice models as a promising step in enhancing care for those with multiple needs as they allow for a more systematic multi-disciplinary team approach to patient care. Participants also cited the experience, in the North East region, of consultations with a clinical pharmacist consultant for patients who use more than eight medications, as an example of good practice to enhance the management of drug side effects, drug interaction and polypharmacotherapy more broadly.
- At the secondary care level, interviewed providers referred to the “care continuum and coordination nurses” introduced in the North West region (see below) as one example of good practice. The Institute of Oncology in Ljubljana was mentioned as an example of the routine sharing of results from patient consultations with specialists with the patient’s family physician.
- The creation of protocols and checklists according to the principles of orthogeriatric collaboration in Ljubljana has been found to significantly improve outcomes for older people with hip fracture.

Surveys of provider groups in Ljubljana, the North West and the North East regions on discharge planning processes and procedures highlighted a lack of standardization of processes and procedures as the key challenge to enhancing continuity at the interfaces between care levels.

- Discharge planning may control costs and improve patient outcomes through, for example, influencing the length of hospital stay and the pattern of care within the community by bridging the gap between hospital and home.
- Surveys of doctors and nurses working in hospital, staff working in community health centres (community nurses, family physicians and nurses working in family medicine model practices), nurses

in long-term care institutions or retirement homes and patient representatives reported a perceived lack of standardization of discharge papers, which was seen to pose considerable challenges in ensuring continuing care, especially for vulnerable people being discharged from hospital.

- There was agreement among respondents that the role of “care continuum and coordination nurses”, as implemented in the North West region, fulfilled an important function in coordinating a given patient’s discharge from the hospital and as a case manager taking on wider responsibilities in the coordination of different services to address the patient’s needs.
- Evidence suggests that a more strategic approach to discharge planning and support in the Slovenian context, such as that adopted in the North West region, may go some way towards enhancing patient outcomes.

Long-term care is provided through different routes across the health and social care sectors, with different entry points and different procedures concerning the assessment of entitlements for supplements to support long-term care needs.

- The provision of long-term care has been described as relying heavily on medical and curative approaches in institutional long-term care settings, while there is less emphasis on rehabilitation and prevention.
- Available evidence points to a lack of transparency because of different entry points and different needs assessment procedures. This creates conditions that risk the unequal treatment of people in need of long-term care services.
- Different oversight and regulatory mechanisms are believed to impact on better coordination of service provision between the health and social care sectors.
- The government draft resolution on the national health care plan 2015–2025 seeks to address several of these issues through creating a “unified way to access services, integrated implementation of activities in various forms and a uniform method of financing”.

1. Introduction

Like many other countries in Europe and beyond, Slovenia is facing the combined challenges of an ageing population coupled with a rising burden of chronic diseases, growing expectations and technological advances against a background of increasing financial constraints and the need to ensure that resources are spent efficiently (Ministry of Health of the Republic of Slovenia, 2015). On the basis of broad indicators of population health, such as healthy life years, along with selected mortality indicators, the health system in Slovenia can be seen to be performing comparatively well when set against other countries in the European region (OECD, 2014). A recent assessment by Kringos et al. (2013a) of the strength of primary care in 31 countries in Europe identified Slovenia to have a strong primary care system, alongside nine other countries including Finland, the Netherlands, Portugal, Spain, Sweden and the United Kingdom. Primary care is believed to be central to high-performing health care systems, with available evidence linking the strength of a country's primary care system to improved health outcomes such as reduced premature mortality and lower death rates from certain conditions such as cardiovascular and respiratory disease, along with lower levels of unnecessary hospitalizations (Kringos et al., 2013b).

However, as in many other countries, a core concern for the Slovenian health system remains fragmentation of service organization and delivery, which poses particular challenges given the changing demographic and health profile of the population. Among the 10 countries identified by Kringos et al. to have strong primary care systems, only the Netherlands, along with

Sweden, ranked comparatively high on the dimension of coordination. While Slovenia was assessed to perform comparatively well on the dimension of coordination, although lower than Denmark, the Netherlands, Sweden and the United Kingdom, its primary care system was evaluated to be weak on the dimensions of continuity and comprehensiveness (Box 1). Conversely, Slovenia ranked highest on access to primary care, along with Denmark, the Netherlands and the United Kingdom.

One concern revolves around a perceived reliance on costly inpatient and specialist care which is seen to weaken the strong foundation of primary care in Slovenia. During the 2000s, and similar to some other countries in the region, expenditure on more expensive inpatient care has grown at a higher pace than spending on outpatient care (OECD, 2011).

These observations suggest that there is a need to strengthen the coordination and collaboration between different providers and across organizations and institutions along the care pathway, from prevention and early detection to the management of multiple care needs and long-term care (Box 2).

These issues were acknowledged to be among the key areas of improvement within the government's 2015 draft resolution on the national health care plan 2015–2025 (Ministry of Health of the Republic of Slovenia, 2015). One of the four priority areas identified to achieve its development vision for 2025 is the optimization of health care activities, with proposals set out in the draft resolution seeking to strengthen primary care, providing greater access to comprehensive and quality treatment of patients, and achieving better utilization of financial

Box 1

Measuring the strength of primary care systems in Europe

The assessment by Kringos et al. (2013a) of the strength of primary care in 31 countries in Europe was based on five core dimensions: structure, access, continuity, coordination and comprehensiveness. These were identified to be indicative of strong primary care from a systematic review of the literature.

Access was operationalized as the availability of primary care services; their geographic accessibility; the manner in which resources are organized to accommodate access (e.g. appointment system, after-hours care arrangements, home visits); the affordability of primary care services (e.g., existence of financial barriers that patients may experience, such as co-payments and cost-sharing arrangements); their acceptability and utilization, as well as equality in access (that is, the extent to which access to primary care services is provided on the basis of health needs).

Continuity was measured as longitudinal continuity (whether general practitioners (GPs) operate a list system, the proportion of patients reporting a visit to their usual primary care provider for their common health problems), informational continuity (for example, the proportion of GPs routinely keeping clinical records for all patient contacts; the use of referral letters; the extent to which GPs receive information about contacts that

patients have with out-of-hours services; the extent to which specialists communicate back to the referring GP after an episode of treatment), and relational continuity (for example, whether patients have a choice of GP practice and GP, or the proportion of patients reporting to be satisfied with their relation with their GP or primary care physician).

Coordination was operationalized as the presence of a gatekeeping system; the proportion of (multi-specialty) group practices in primary care and use of nurse-led services; degree of collaboration between primary and secondary care (for example through joint consultations, decision support or specialist clinics in primary care) and the integration of certain public health functions in primary care (e.g. using patient data to identify health needs or priorities).

Comprehensiveness was assessed on a series of sub-dimensions, including the availability of selected medical equipment; the extent to which patients would consult with a GP as first contact for common health problems; treatment and follow-up for a range of diagnoses in primary care; the provision of medical technical procedures such as minor surgery and preventive care (including immunizations or cancer screening); the provision of selected mother and child and reproductive health services; and the provision of a range of health promotion activities (for example, smoking cessation, dietary counselling, etc.).

Source: Kringos et al. (2013a, 2013b).

and human resources through vertical and horizontal integration across levels and sectors so as to enhance the system's responsiveness to the changing needs of an ageing population.

Box 2

Defining care coordination and integration

There is a plethora of terminologies that have been variously described as “integrated care”, “coordinated care”, “collaborative care”, “managed care”, “disease management”, “case management”, “patient-centred care”, “seamless care”, “continuity of care”, and others (Nolte & McKee, 2008). While these may differ conceptually, the boundaries between them are often unclear and terms are frequently used interchangeably (Kodner & Spreeuwenberg, 2002). This has important implications for practice. Empirical evidence of approaches that can be subsumed under the above terms is often difficult to compare because of a lack in clarity in defining and describing the approach being studied. It thus remains problematic to arrive at conclusions about the relative value of one approach over another.

The common denominator of many of the above listed concepts is the goal of improving outcomes for those with (complex) chronic health and care needs by overcoming issues of fragmentation through linkage of services from different providers along the continuum of care (Nolte & Pitchforth, 2014).

At the same time it is important to recognize that Slovenia has made good progress in a number of areas to optimize the care pathway through enhanced coordination and collaboration between providers at the different tiers of the system, with examples of good practice at the different levels of service delivery. This report seeks to provide further insight into current patterns of service delivery in Slovenia and to better understand existing facilitators and barriers towards enhancing the service user journey through the health and care system and so inform the further development of the Slovenian health system.

2. Aims and objectives

The overarching aim of the analyses presented in this report is to describe current service delivery patterns in Slovenia and identify key facilitators and barriers towards optimizing the interfaces between primary and secondary care, and between health and long-term care. Drawing on examples of good practice but also on “failures”, our analysis will seek to derive lessons that can help to address key bottlenecks as well as identifying opportunities to optimize service delivery in the Slovenian health system.

The analysis comprises three components, focusing on (i) the primary–secondary care interface; (ii) pathways for people with multiple care needs; and (iii) the interface between health and long-term care. Specifically, the report provides:

1. an analysis of the key facilitators and blockages for better coordination at the primary–secondary care interface through
 - (i) assessing key indicators of “avoidable” hospitalizations across Slovenia and over time; and
 - (ii) exploring the day-to-day challenges experienced by health care providers in the management of chronic disease, using diabetes as a case study.
2. an assessment of the main challenges faced by people with multiple care needs as they pass through the system, through
 - (i) exploring the core challenges and experiences of good practices in the management of people with multiple care needs as perceived from different professional perspectives; and
 - (ii) assessing processes and procedures for discharge planning implemented by hospitals with a focus on people with multiple care needs and from the perspectives of a range of providers and agencies in three regions in Slovenia.
3. a description of the current long-term care arrangements that are in place in Slovenia.

The report is structured as follows. It begins with a brief summary overview describing the current organization and structure of primary care, and service delivery more broadly, in Slovenia (Chapter 3). Chapters 4 to 6 then report on the three components of the analysis as described above, exploring the facilitators and blockages for better coordination at the primary–secondary care interface (Chapter 4), assessing the challenges faced by people with multiple care needs as they pass through the system (Chapter 5), and describing the management of the interface between health and long-term care (Chapter 6). The key observations are summarized in the executive summary provided at the beginning of this report.

3. The organization and structure of health service delivery in Slovenia

The delivery of health services in Slovenia is organized at the primary, secondary and tertiary care levels. Primary care is under the jurisdiction of municipalities, which are responsible for health policy development at local level. They own the 65 community health centres that are established in municipalities and which cover the entire territory of the country. Primary care is also provided by office-based physicians in private practice, who contract directly with the Health Insurance Institute of Slovenia and who are granted a “concession” by the respective municipality for the delivery of publicly funded primary care services (Pavlič et al., 2015). Primary care practitioners in Slovenia include family physicians, paediatricians and gynaecologists, as well as dentistry for adults and children, community nursing, physiotherapy and laboratory services and pharmacies. Patients have free choice of primary care physicians, who act as gatekeepers to secondary care, which means that patients require a referral to visit specialist in outpatient facilities.

From 2007 physicians providing primary care must have completed specialized training in family medicine according to the guidelines and recommendations issued by the European Union of General Practitioners/Family Physicians (UEMO). This new model of postgraduate training was introduced in 2002. All primary care practices include at least one registered nurse or health technician and are supported by a network of community nurses, who fulfil a preventive (health visiting) role as well as providing care for patients in their own homes upon referral by the respective family doctor.

From 2011 a system of family medicine model practices has been introduced (Poplas Susič & Marušič, 2011). These practices include, in addition to the regular nurse, a further part-time (0.5 full-time equivalent) registered nurse who has received additional training and whose tasks include screening for chronic disease risk factors and preventive counselling of patients aged 30 and older, as well as the care coordination of all registered patients with stable chronic diseases, such as diabetes. In the Slovenian context this nurse is referred to as a “diploma nurse”; however, in line with the international literature on Slovenia (e.g., Poplas-Susič et al. (2015)) this report uses the term “nurse practitioner” throughout. By the end of 2014 there were 437 family medicine model practices in Slovenia, out of a total of 857 family practices overall (51%), and it is intended that all practices will adopt this model within the coming years (National Institute of Public Health, unpublished data).

Child and adolescent health care services are provided by paediatricians in primary care; they cover about 80% of the care for this population group. Shortages in some regions mean that paediatricians practising in those regions have heavier workloads or else family physicians fill in. Ageing among the paediatric workforce led to an increase in placements for specialty training in paediatrics for junior doctors from the mid-2000s, so ensuring delivery of child and adolescent primary care across the country, including in rural areas. Slovenia opted for a special programme for primary care paediatrics, which consists of a three-year core specialty and a two-year continuation, which focuses on primary care problems and challenges. There are plans to introduce model practices similar to those in place in family medicine.

As indicated above, primary care services in Slovenia also include gynaecologists, who are located in community health centres, practise independently in their own office or as part of outpatient services in hospitals. Services provided include preventive services for all women over the age of 15, family planning, antenatal and postnatal care, screening for cervical cancer, and early detection and treatment of other gynaecological conditions that can be managed at the outpatient level. Over the past few years many of these practices have moved closer to hospitals, challenging the entire concept of the organization of women’s health care at the primary level.

Secondary care is delivered by 28 public hospitals as out- and inpatient services. There are also three private hospital facilities and independent practices. The secondary (and tertiary) care levels include two university hospitals, the national cancer institute, the national rehabilitation institute, the clinic for pulmonology and allergy, the clinic for psychiatrics, ten general district hospitals, four psychiatric hospitals, two gynaecological hospitals, three pulmonary/internal medicine hospitals, two hospitals for children, and one orthopaedic hospital. In 2014 there were a total of 9356 inpatient beds, of which 7375 were acute care beds (National Institute of Public Health, unpublished data).

4. Facilitators and blockages for better coordination at the primary–secondary care interface

This chapter provides an analysis of the key facilitators and blockages for better coordination at the primary–secondary care interface. It does so by first assessing the levels and trends of hospitalizations for certain chronic conditions that are considered avoidable in the presence of good quality primary care. Second, we explore the day-to-day challenges experienced by health care providers in the management of chronic diseases, using type 2 diabetes as a case study to better understand the nature of the barriers faced in optimizing the patient journey. Internationally, diabetes has been used as a “tracer” condition that can provide insights into weaknesses in elements of the health system (Nolte et al., 2006; Kühlbrandt et al., 2014). Effective treatment reduces the risk of disabling or fatal complications and its optimal management requires coordinated inputs from a wide range of health professionals, access to essential medicines and monitoring, and, ideally, a system that promotes patient empowerment. A health service that is unable to integrate these elements for the management of diabetes is unlikely to be able to meet the needs of people with other chronic disorders. The diabetes case study can therefore help obtain more direct insight into the performance of the Slovenian health system.

4.1 “Avoidable” hospitalizations across Slovenia and over time

An often used indicator for the quality of primary care is the rate of hospital admissions for typically chronic conditions that are considered potentially avoidable if managed appropriately in primary care through adequate measures to control the disease and prevent complications. Frequently referred to as ambulatory care sensitive conditions (ACSCs), high rates of hospitalizations for these conditions can be seen as indicators of poor access to primary care (Bindman et al., 1995; Rosano et al., 2013), or of lack of coordination between primary and secondary care (Gibbons et al., 2012; O’Malley et al., 2015), or both, among other factors. The OECD, as part of its health care quality reporting, has identified hospital admissions for asthma, chronic obstructive pulmonary disease (COPD) and diabetes (along with congestive heart failure) as indicators of the performance of primary care systems among OECD countries, arguing that a high performing primary care system should be able to prevent acute deterioration in people living with these conditions and prevent their admission to hospital (OECD, 2015).

In this report, we analysed indicators that have been developed within the OECD’s Health Care Quality Indicators project work. These indicators are hospital admission for (1) asthma, (2) COPD, (3) congestive heart failure (CHF), (4) hypertension, (5) uncontrolled diabetes without complications, and (6) diabetes lower extremity amputations. Indicators were calculated for the period 2009–2013. The numerator was the number of hospital admissions, which had to meet certain inclusion criteria, such as diagnosis and/or procedure code, and age. Exclusion criteria included pregnancy, childbirth, puerperium, newborn and neonates, and day case procedure codes. The denominator in all cases was population count. Hospital admission rates were age- and sex-standardized to the OECD standard population aged 15 years and older.

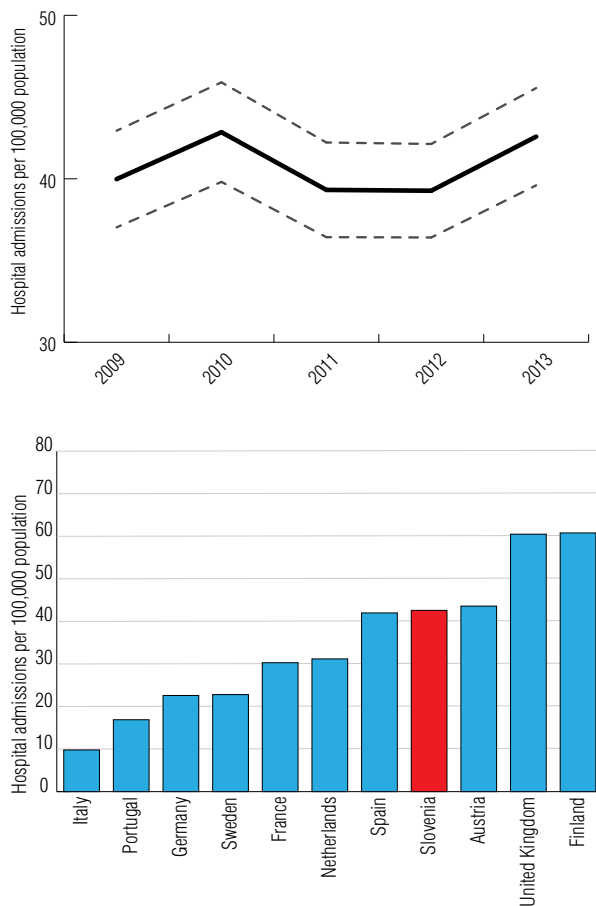
4.1.1 Potentially avoidable admissions in Slovenia, 2009–2013

Figure 1 shows the hospital admission rate for asthma in Slovenia for the period 2009–2013. The rate varied from 39 to 43 admissions per 100 000 population throughout the observation period. There was no obvious trend towards higher or lower rates over time. The asthma admission rate was higher for women than for men, at an average of 45 admissions per 100 000 population during 2009–2013, compared to men at 36 per 100 000. Compared to a set of European OECD countries, the observed rate of asthma admission in Slovenia was more than four times the rate observed for Italy, and about twice the rates seen in Germany, Portugal and Sweden; in 2013 Slovenian rates exceeded the average rate of 11 EU countries¹ by about 20% (OECD, 2015; Figure 1).

1. Countries included: Austria, Finland, France, Germany, Italy, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

Figure 1

Hospital admissions for asthma (per 100 000 population) in Slovenia, 2009–2013 (above) and in 11 European countries, 2013 (below)

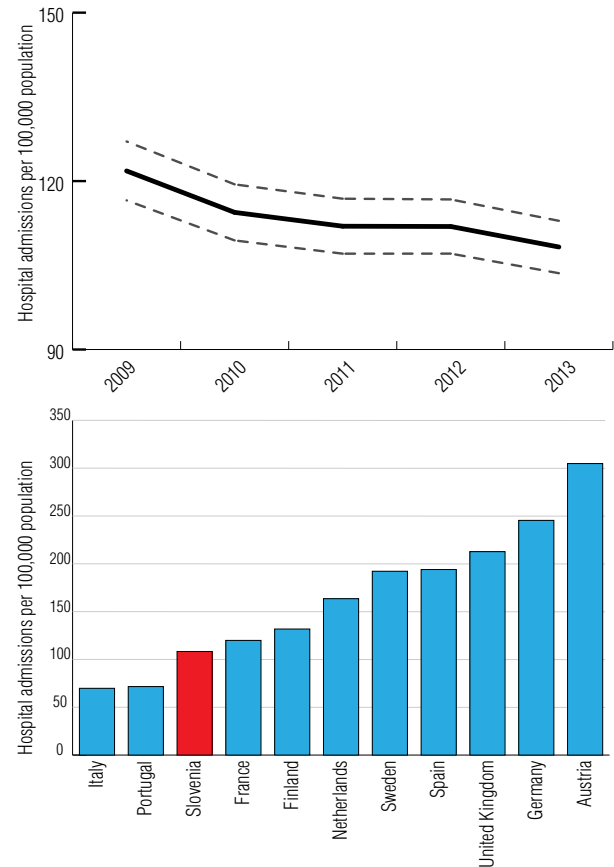


Source: National Institute of Public Health, 2015b; OECD, 2015

Conversely, hospital admission rates for COPD have followed a small but steadily declining trend (Figure 2), falling from 122 per 100 000 admissions in 2009 to 108 per 100 000 in 2013. Also in contrast to asthma, COPD hospital admission rates among men exceeded those of women by a factor of 2.5 to 3. For example, in 2013 the COPD hospital admission rate among men was 170 per 100 000, compared to 64 per 100 000 among women, likely reflecting the higher rates of smoking among Slovenian men. Compared to selected EU countries, admission rates for COPD in Slovenia in 2013 were about 50% higher than those seen in Italy and Portugal, and overall about 35% lower than the average rate of 11 EU countries.

Figure 2

Hospital admissions for COPD (per 100 000 population) in Slovenia, 2009–2013 (above) and in 11 European countries, 2013 (below)

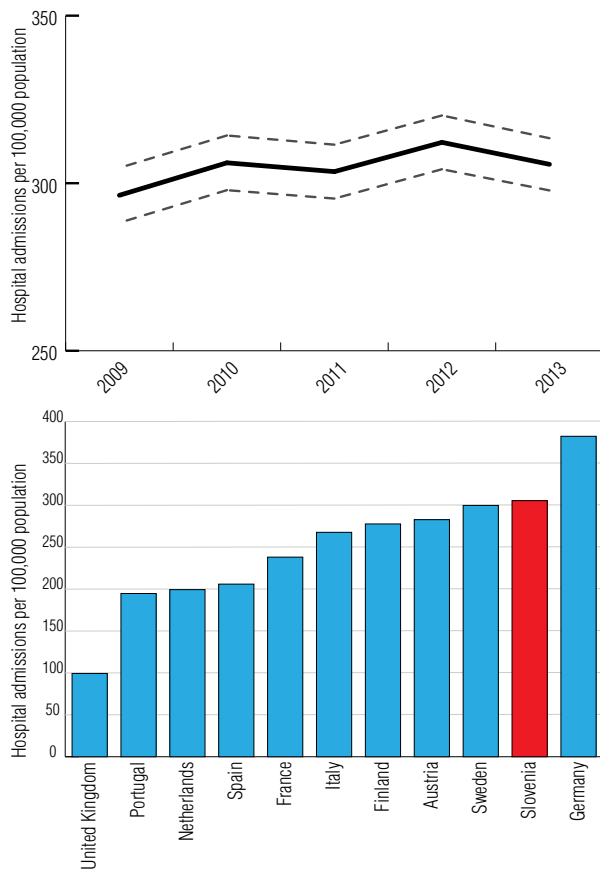


Source: National Institute of Public Health, 2015b; OECD, 2015

Figure 3 illustrates trends in the hospital admission rate for congestive heart failure (CHF) among the Slovenian population, pointing to a steady increase during the observation period, with some indication of stabilization in the rate more recently. Thus, there were 296 admissions per 100 000 population in 2009, rising to 312 admissions per 100 000 in 2012, and decreasing slightly to 306 admissions in 2013. As with COPD admissions, hospital admissions for heart failure were higher among men by a factor of 1.5, with an average of 373 admissions per 100 000 population during 2009–2013 compared to women (average of 252 admissions per 100 000 population). Compared to selected OECD countries, CHF admissions in Slovenia in 2013 were three times those seen in the UK and exceeded those seen in Portugal and the Netherlands by a factor of 1.5.

Figure 3

Hospital admissions for congestive heart failure (per 100 000 population) in Slovenia, 2009–2013 (left) and in 11 European countries, 2013 (right)

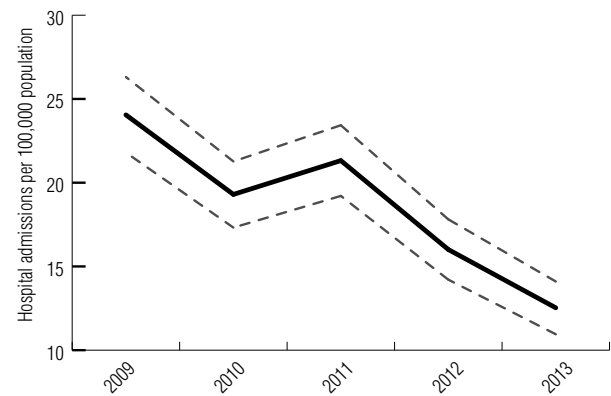


Source: National Institute of Public Health, 2015b; OECD, 2015

In contrast, there was a considerable fall in hospital admissions for hypertension over time, with the admission rate halving from 24 admissions per 100 000 population in 2009 to 12 in 2013 (Figure 4). However, it is noteworthy that overall admission rates for hypertension were substantially lower than those observed for COPD or heart failure. The admission rate for hypertension did not differ substantially between men and women. There was no comparable data available for other EU countries at the time of writing of this report.

Figure 4

Hospital admissions for hypertension (per 100 000 population) in Slovenia, 2009–2013

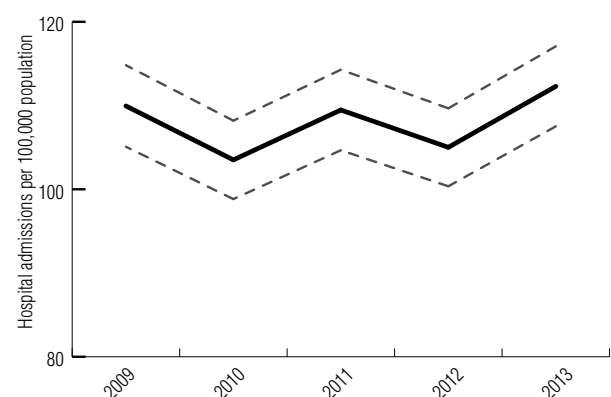


Source: National Institute of Public Health, 2015b

Finally, Figures 5 and 6 show trends in hospital admissions for diabetes-related conditions. The number of admissions for uncontrolled diabetes without complications tended to increase over time, although the overall change was small, with the rate rising from 110 admissions per 100 000 population in 2009 to 112 per 100 000 population in 2013 (Figure 5). The admission rate was higher for men, at an average of 131 admissions per 100 000 population during 2009–2013 compared with women (average of 87 admissions per 100 000 population). There was no comparable data available for other EU countries at the time of writing of this report.

Figure 5

Hospital admissions for uncontrolled diabetes without complications (per 100 000 population) in Slovenia, 2009–2013



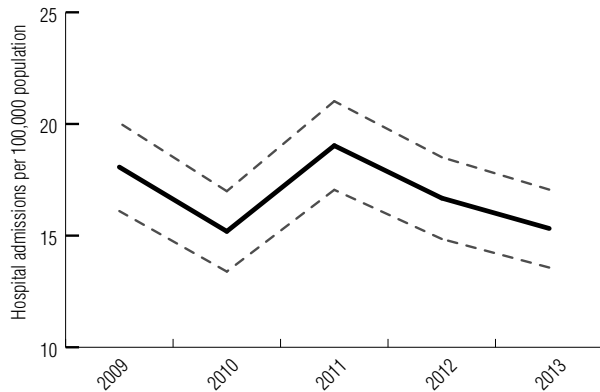
Source: National Institute of Public Health, 2015b

Hospital admission rates for diabetes-related lower extremity amputations seem to suggest a decreasing trend over time, although (and similar to hypertension and asthma) absolute numbers were low and thus susceptible to random fluctuation (Figure 6). The overall rate has fluctuated around an average of 17 admissions per 100 000 population during 2009–2013. Again, the number of admissions per 100 000 was higher among men than among women, at an average of 23 admissions per

100 000 population during 2009–2013 compared with 12 per 100 000. There was no comparable data available for other EU countries at the time of writing of this report.

Figure 6

Hospital admissions for diabetes-related lower extremity amputation (per 100 000 population) in Slovenia, 2009–2013



Source: National Institute of Public Health, 2015b

4.1.2 Discussion

In this section we reviewed trends in potentially avoidable hospital admissions for a number of chronic conditions over the period 2009–2013 as an indicator of the performance of primary care in Slovenia. The data that are available describe different trajectories, with an indication of decreasing rates of hospital admissions for COPD and hypertension and a small increase in the rates for congestive heart failure, while no clear trends could be identified for asthma and complications of diabetes. It is difficult, on the basis of these overarching trends, to derive with certainty conclusions about the appropriateness of service provision in the Slovenian health system in effectively addressing these chronic health problems. The comparatively low levels of potentially avoidable hospitalizations for some conditions likely reflect the fairly good rating of the Slovenian primary care system as far as access is concerned, as described above (Kringos et al., 2013a). It is more difficult, however, to draw conclusions about the level of coordination between primary and secondary care. At the same time, and at the risk of oversimplifying what is inherently complex, a number of tentative observations can be made.

For example, the observed small but steady decline in hospital admissions for COPD may, at least in part, be attributable to a small, but steadily declining trend in adult smoking prevalence seen in Slovenia following the introduction in 2007 of policies restricting smoking in the workplace and in public places (World Health Organization Regional Office for Europe, 2015a). Data from the Global Burden of Disease study point to a small decline, between 1990 and 2010, in the overall burden that can be associated with COPD in Slovenia as measured by disability-adjusted life years (DALYs) (Institute for

Health Metrics and Evaluation, 2013), although the data are difficult to interpret. Recent work in Lithuania found an improvement in Lithuanian tobacco control policies to be associated with an increase in smoking cessation in the long term (Klumbiene et al., 2015) and available evidence suggests that smoking cessation can reduce the risk of hospitalization for COPD (Godtfredsen et al., 2008). It is plausible that similar effects might have occurred in the Slovenian context, although this hypothesis would need to be confirmed through appropriate empirical studies. In addition, there is evidence of earlier detection and treatment of COPD through the introduction of family medicine model practices from 2011 (Poplas-Susič et al., 2015), although it is too early to clearly attribute measurable impact of model practices on hospital admissions at this stage, given that by the end of 2014 only about half of GP practices in Slovenia had adopted this new service model, as noted above.

The reduction by almost half of hospital admissions for hypertension vis-à-vis a small increase in the rates of hospitalizations for congestive heart failure are likely to reflect, at least in part, cardiovascular disease policies that have been put in place in Slovenia as part of a national programme for the primary prevention of cardiovascular diseases introduced in 2002 (Box 3), building on the World Health Organization Countrywide Integrated Non-communicable Diseases Intervention (CINDI) programme, which Slovenia formally joined in the early 1990s (Maucec Zakotnik et al., 2007).

Again it is difficult, on the basis of the available data, to establish a direct cause–effect relationship, in particular given that the burden attributable to cardiovascular disease in Slovenia has already been declining steadily over the past three decades, with mortality levels falling by about half since the early 1990s, especially among the under-65s (World Health Organization Regional Office for Europe, 2015b). At the same time, in 2010 Slovenia was among the 10 countries in Europe in which cancer had overtaken cardiovascular disease in terms of the total number of deaths among men (Nichols et al., 2014). However, available evidence points to improved control of hypertension in primary care, with one cross-sectional study of just over 18 000 patients with arterial hypertension treated by specialists in family medicine finding a steady and significant increase in the proportion of those with controlled hypertension, rising from 48.7% in 2002 to 70.5% in 2008 (Pal et al., 2014). These improvements were, in part, attributed to the initiatives launched as part of the aforementioned Slovenian CINDI programme and the subsequent national programme for the primary prevention of cardiovascular disease (Box 3). With regard to congestive heart failure in particular, it may be hypothesized that an increase in hospitalizations could reflect increased survival with the condition, as a consequence of more timely detection and earlier treatment. Yet a recent survey of the general

Box 3**The Slovenian National Programme on Primary Prevention of Cardiovascular Disease**

The comprehensive national programme on primary prevention of cardiovascular diseases is delivered countrywide in all family medicine practices and community health centres in Slovenia. Targeting the adult population (men aged 35–65 years, women aged 45–70 years), the programme aims at the early detection of individuals at high risk for developing cardiovascular disease and type 2 diabetes, and to initiate action, including lifestyle advice and education, to reduce exposure to cardiovascular disease risk factors. The latter is provided through a network of health education centres that were established in 2002 and are located in community health centres. At the time of writing there were 61 health education centres across Slovenia.

Family physicians are expected to perform a preventive interview or examination with the registered target population every five years to determine the individual risk for experiencing a cardiovascular event within the next 10 years. For those identified to have a risk of 20% or more, screening activities are undertaken on an annual basis. These individuals are also invited to participate in a health education programme, as are

current smokers, individuals whose weight exceeds a body mass index of 30, and those diagnosed with hypertension or type 2 diabetes, as well as people who use alcohol in a risky or harmful manner.

The health education programme is delivered by specially trained professionals, typically nurses, who are based in the aforementioned community health centres and who carry out standardized and structured workshops on healthy weight loss, healthy diet, physical activity, smoking cessation and reducing risky and harmful alcohol consumption. From 2014 workshops to support people with depression are also available. The aim of the workshops is to support individuals in pro-actively starting to take care of their own health, by acquiring the necessary skills and by creating positive attitudes and behavioural patterns for a healthy lifestyle.

Referral to the health education workshops can be issued by family physicians or nurse practitioners in family medicine model practices. With the introduction of the latter from 2011, risk factor screening has been assigned to nurse practitioners, adding early detection of COPD, stress and depression, and broadening the target population to include men and women aged 30 years and older.

Source: Maucec Zakotnik et al., 2007; Vracco et al., 2015.

public in Slovenia highlighted a lack of awareness of and knowledge about the condition, also pointing to the need to strengthen disease perception and understanding among health professionals as a means to improve the management of this condition, in particular among nurses who deliver patient education (Lainscak et al., 2014).

A recent observational, population-level study analysed potentially avoidable hospitalizations for six conditions (asthma, COPD, congestive heart failure, short-term complications of diabetes, dehydration among older patients, angina) in five European countries, including Slovenia (Thygesen et al., 2015). It found high variation in overall rates across countries, ranging in 2009 from 93.7 cases per 10 000 population in Denmark to 34.8 per 10 000 in Portugal. The rate for Slovenia was 48.8 per 10 000; it was largely driven by hospitalizations for congestive heart failure and overall the rate had remained fairly stable throughout the observation period (2005–2009). The rate of potentially avoidable hospitalizations in Slovenia was inversely associated with educational level, with areas that had a higher proportion of people with low levels of educational achievement showing higher hospitalization rates. Importantly, propensity to hospital utilization (measured as overall hospitalization rates in the previous year) explained 72% of an observed variation in avoidable hospitalizations. This was interpreted as an indication of inefficiencies at the system level in addressing the needs of patients with chronic health problems.

Taken together, the data on potentially avoidable hospital admissions in Slovenia seem to suggest that the country may be performing comparatively well on this indicator when set in the wider European context. However, with the possible exception of COPD and hypertension, observed trends do not seem to indicate

noticeable improvements in the rate of hospitalizations that are considered avoidable in the presence of a high performing primary care system. This underlines the aforementioned challenges faced by the Slovenian system in ensuring continuity of and well coordinated care for people with complex care needs.

4.2 Challenges experienced by health care providers in the management of diabetes

The prevalence of diabetes in Slovenia has been estimated to be 10% of the population aged 20–79 years in 2014 (International Diabetes Federation, 2014a; based on Guariguata et al. (2014) who estimated prevalence using national survey data). This equates to about 158 800 adults who are living with diabetes, while the number of cases of diabetes in adults that are undiagnosed is estimated to be 54 000. Although the data for Slovenia do not differ substantially from other countries in Mediterranean EU Member States, the region overall has been identified to have among the highest diabetes prevalence or the highest number of people with diabetes in the European region (International Diabetes Federation Europe, 2013) (Box 4).

Box 4**The economic costs of diabetes in Slovenia**

A recent study by the Slovenian Institute of Public Health estimated the annual economic costs that can be associated with diabetes to be at least EUR 120 million. Drawing on data from 2012, the analysis found that the majority (95%) of these costs directly accrued to the health system (medication: 35%; medical devices: 14%; inpatient treatment: 14%; care institutions: 13%; with the remaining 25% attributable to the treatment and management of diabetes by physicians in primary and outpatient care). The costs associated with lost productivity were estimated to be in the region of EUR 5.5 million, of which about 40% was attributed to sickness absence and the remainder to loss of future income because of premature death. These figures are likely to underestimate the “true” economic burden associated with diabetes in Slovenia because of a range of methodological and data challenges. These relate, for example, to the limited ability to capture all persons affected by diabetes using existing databases (in particular where patients with multiple conditions and co-morbidities are concerned). Also, a range of costs could not be assessed because of lack of suitable data (for example, on the burden of informal care, disability and early retirement as a consequence of diabetes). At the same time, the analysis provides considerable scope to direct further work, in particular to inform the future collection of data that may more meaningfully capture the disease and cost burden associated with diabetes in the country.

Source: National Institute of Public Health, 2014a.

In response to the rising burden of diabetes, Slovenia launched the National Diabetes Prevention and Care Development Programme 2010–2020 as a government-approved strategic plan (Ministry of Health of the Republic of Slovenia, 2010). Slovenian Guidelines for the Management of Patients with Type 2 Diabetes were published in 2008 (updated in 2011, with a new edition being prepared).

Diabetes care in Slovenia reflects the general structure of the Slovenian health care system with its complexities and opportunities for change, and diabetes is included in national-level projects aiming to improve preventive services and the care of people with chronic conditions at the primary care level. Diabetes is managed between primary and secondary level care. Patients receiving nonpharmacological therapy, or who use oral hypoglycaemic agents, are generally treated by family physicians, and those requiring insulin and pregnant women with gestational diabetes are treated by specialist diabetologists at the secondary care level (Urbancic & Koselj, 2004) (Box 5). With the introduction of family medicine model practices in 2011, as described in Chapter 3 of this report, the emphasis in primary care was further shifted away from a focus on acute and chronic care to one that also incorporates prevention and nursing care as a core function (Turk, 2013).

Support for healthy lifestyles for people at risk and those with established type 2 diabetes and other chronic diseases is delivered in community health centres, as part of the aforementioned national programme on the primary prevention of cardiovascular disease (see also Box 3, p. 8). This is complemented by the developmental project Towards Better Health and Reducing Inequalities in Health within the framework of the Norwegian Financial Mechanism 2009–2014 (National Institute of Public Health, 2014b), which aims to strengthen preventive services with a particular focus on vulnerable populations.

A recent assessment by the International Diabetes Federation (2014a) highlighted the strengths of the Slovenian health system in providing services for diabetes treatment and the prevention of secondary complications. However, it also noted that access to prevention and early diagnosis may not be equally available across all of Slovenia. It acknowledged the existence of the national diabetes plan, while observing that implementation has only been partial so far, and that monitoring and surveillance of diabetes care could be more routinely implemented.

Against this background, using diabetes as a case study in this report presents an opportunity to better understand both good and inadequate practices towards optimizing chronic care in the Slovenian health system. We carried out three tasks:

- (i) a descriptive assessment of the Diabetes Prevention and Care Development Programme 2010–2020, outlining its principal aims and objectives, the nature and range of activities that have been or are planned to be implemented as part of the plan, and the lessons learned so far from the implementation of the plan for other national-level programmes;
- (ii) an assessment of selected achievements in diabetes care over time using existing quantitative data; and
- (iii) an exploration of the enablers of and barriers to adopting good practice in the day-to-day management of patients with diabetes using focus groups with different stakeholders.

We report on each of these tasks in turn.

4.2.1 The Diabetes Prevention and Care Development Programme 2010–2020

The initiative to develop a national diabetes plan in Slovenia principally evolved in response to the 1989 St Vincent Declaration on diabetes care and research in Europe (International Diabetes Federation, 2014b). Although there had been attempts to prepare a related strategy during the 1990s, it was only during the mid-2000s that the momentum for developing a national diabetes plan gained broader support, involving the set-up, in 2007, of a multi-stakeholder working group at the Ministry of Health (European Commission Health

Box 5**The evolution of diabetes care in Slovenia since 1991**

Until 1991 diabetes care was delivered by diabetology dispensaries, which were the responsibility of the regions. Following independence, diabetology dispensaries were abolished but they were not replaced by an alternative process that would have allowed for an organized transformation of diabetes care. Instead, local organizational structures started to emerge, which, initially, were mostly based on existing diabetes teams in diabetology dispensaries, paid through the Health Insurance Institute of Slovenia as secondary level specialist care.

Prevention and early diagnosis was overseen by specialists in family medicine (in 1991 general practitioners; specialist training in family medicine was introduced from 2002, see Chapter 3). Because of a rising number of people with diabetes, some regions started to shift care for some patients to the primary care level. For example, in the Ljubljana region specialists in family medicine with special knowledge of

diabetes began to operate clinics for diabetes care at the primary level (while paid for as secondary care). Prevention and early diagnosis of diabetes is part of the national programme on the primary prevention of cardiovascular disease introduced in 2002 (see Box 2, p. 2).

At present, the family medicine team may not initiate insulin therapy and its management, since education is not yet available at the primary care level. Similarly, some pharmaceuticals for the treatment of diabetes may not (yet) be prescribed at this level; this mostly applies to newer drugs, with prescribing restrictions set by the Health Insurance Institute of Slovenia in close cooperation with diabetologists. In urgent and emergency situations the specialist in family medicine refers the patient to the hospital emergency department, in line with professional protocols. As part of the National Diabetes Plan 2010–2020, the principle of shared care between primary and secondary care was agreed upon and these models are now to be implemented in family medicine model practices.

Source: authors

and Consumers Directorate General, 2011), with members from the national patients' association, registered nurse educators, diabetologists, specialist physicians in family medicine, pharmacists, the National Institute of Public Health (NIJZ) and, from 2009, the Health Insurance Institute of Slovenia (HIIS). Conceived as a strategic document for the period 2010–2020, and following public consultation in 2009, the National Diabetes Prevention and Care Development Programme 2010–2020 (NDP) was eventually adopted by the Slovenian Government in April 2010.

The NDP identified four overarching goals (Ministry of Health of the Republic of Slovenia, 2010):

1. to reduce the incidence of type 2 diabetes through health promotion and diabetes prevention activities at population level;
2. to identify people at risk of developing type 2 diabetes and reduce the incidence or delay the onset of type 2 diabetes through structured care approaches;
3. to enhance early detection of type 2 diabetes in people at risk, including children, adolescents and pregnant women; and
4. to reduce complications and mortality in people with diabetes.

The implementation of these goals was to be achieved through horizontal processes, including strengthening patient empowerment and involvement, enhancing care coordination among providers and teams, monitoring of diabetes prevention and care, fostering partnerships between the partners of the NDP, and continuous monitoring of NDP implementation. In addition, activities were to be based on a range of key principles, such as ensuring equity of access to prevention and treatment, and that processes and actions complement other activities in the health care sector that are relevant

to diabetes prevention and care, and that actions are evidence-based and support the development of research and knowledge.

The NDP Steering Group

The NDP is overseen by a Steering Group appointed by and located at the Ministry of Health. Its tasks are to plan, coordinate, monitor and report on NDP implementation. The members are delegated by the institutional partners of the NDP, which include: the Slovenian Diabetes Association, the Diabetology Association of Slovenia, the Department of Family Medicine at the Medical Faculty of the University of Ljubljana (national-level representative of specialists in family medicine), the National Institute of Public Health, the Health Insurance Institute of Slovenia, the University Medical Centre Ljubljana (department for diabetes and paediatric diabetes unit), the Nurses and Midwives Association of Slovenia, the Slovene Chamber of Pharmacists and the Ministry of Health.

The Steering Group meets at least five times a year. It prepares and delivers reports on annual progress of the implementation of the NDP, and a full report at the end of each action plan period (see below). A particular emphasis on reporting action plans was to highlight barriers to achieving a given activity throughout the process of implementation. These have to be documented in the reports on the implementation of action plans and reflected in priorities for the plans for the subsequent period. In addition, a national diabetes conference is organized at least every two years, presenting achievements, barriers to implementation and future plans.

NDP Action Plans

The NDP is principally implemented through two-year action plans, which define specific activities in line with the NDP's overarching goals and specify the leading partner, collaborating partners, timeline and resources

required for implementation. Since the approval of the NDP, three action plans have been put in place, covering, respectively, the periods 2010–2011, 2012–2013 and 2014–2015.

The aims of the 2010–2011 Action Plan were to set up the structure for the coordination of NDP implementation, monitoring, evaluation and planning; to undertake a situational analysis to identify the needs, including resources available and cost analysis, with suggestions for next steps from different stakeholder perspectives; to have clinical guidelines for diabetes care in place; and to develop proposals for models and standards of diabetes care. It also included several pre-planned activities of partners that were reported to the Action Plan in order to enhance visibility and to broaden the partnership.

The Action Plan included a total of 56 activities, and by the end of 2011 a number of goals had been successfully achieved. These included updated clinical guidelines for type 2 diabetes in adults (including those at high risk of developing diabetes) and proposals for models of care, alongside the preparation of a curriculum for adult patient education and of a competence profile for registered nurse educators, as well as the introduction of repeat prescriptions for patients. Conversely, the recommended situation analyses were, if anything, undertaken only partially, with only one partner (HIIS) preparing a written document to that effect.

A number of activities also complemented other ongoing national-level initiatives. Importantly perhaps, the development of proposed models of diabetes care that constituted one of the main activities of the 2010–2011 plan complemented the national programme under the leadership of the Ministry of Health which introduced family medicine model practices into primary care as described above. It followed the general principle of shared care between primary and secondary care levels, which was agreed upon during the development of the NDP and further informed by clinical guidelines. Care models thus developed as part of the Action Plan were subsequently to be used in family medicine model practices. The need for coordination between the different levels of care was the main focus from 2011 onwards, with several activities planned to better join the two national programmes.

Building on the experience of the 2010–2011 plan, the 2012–2013 Action Plan focused on quality of life and patient experience; coherent and reliable information about diabetes; an analysis of the current status from a patient and system perspective; enhancing care for children and adolescents at risk; and strengthening partnerships. Among other things, it foresaw several activities to strengthen the aforementioned coordination with the national family medicine model practices programme; the establishment of a working group on the development of indicators for diabetes monitoring and care, and the development of data sources; and the

establishment of a further working group on coordinated education on diabetes and healthy lifestyles with the aim to develop educational materials.

The Action Plan included a total of 71 activities, and at the end of 2013 a number of successes were recorded. These included a better understanding of trends in healthy lifestyles in the population; the publication of reports on improved care for children and adolescents with diabetes and on the quality of life in patients with diabetes, in addition to books on diabetes for different audiences (teachers, children, health professionals). The curriculum for the education of patients was also completed. The reports on activities were further widely disseminated through national and international events.

Activities developed within the most recent 2014–2015 Action Plan comprised a total of 74 actions. Identified areas of activity included the provision of consistent information about diabetes to patients and the general public and the adaptation and upgrading of existing health education and support for healthy lifestyle programmes in community health centres. A key activity was dedicated to the refocusing of the NDP for the period 2015–2020. Achievements reported include the preparation of training courses for pharmacists and on pharmaceutical care for diabetes; the agreement on a model for (and the financing of) systematic screening for retinopathy; and the use of diabetes-related data as a model for making data accessible to providers through electronic health records.

Lessons learned

Assessing the impact of the NDP with regard to achieving its four core goals (reducing the incidence of type 2 diabetes, identifying people at risk of developing type 2 diabetes and delaying the onset of type 2 diabetes, enhancing early detection of type 2 diabetes, and reducing complications and mortality in people with diabetes) remains a challenge in a system where data collection has largely been fragmented across different institutions (National Institute of Public Health, Health Insurance Institute of Slovenia, University Medical Centre Ljubljana (registry of people at risk for cardiovascular disease; registry of children and adolescents with diabetes)). From 2011 family medicine model practices have been establishing local databases of people at risk of developing type 2 diabetes and patients with diabetes.

The development of indicators for assessing diabetes prevention and care has remained an issue of debate, however, with a dedicated working group, which was established as part of the 2012–2013 Action Plan, unable to come to an agreement. This process has now been shifted to the higher levels of all partners to ensure consensus. The role and location of a national diabetes register has also remained under discussion.

The overall success and impact of the NDP will depend, to considerable extent, on the engagement of its partners and other institutions. Although difficult to measure, the underlying values and principles of the NDP can be seen to have helped implement key activities, through coordinated action, synergies and complementarities, and the integration of activities into other processes and activities in the health care system. An example of the latter includes the coordinated activity to bring proposed models of diabetes care together with the national programme of establishing family medicine model practices as described above. Other achievements can be seen to include the ability to solve problems and overcome barriers that partners, by themselves, may be unable to achieve, as well as the ability to involve new partners and new ideas, so ensuring flexibility and adaptation to a changing environment.

The involvement of patient representatives was seen to have benefited a number of initiatives, although the overall notion of “patient empowerment”, which has been defined as one of the underlying principles of the NDP, has remained somewhat elusive (see also Section 4.2.3). The “buy-in” of the NDP by patient representatives at the level of the Steering Group was considered to be very high, and patients were also the first to highlight the need to better coordinate the NDP with the national programme of family medicine model practices. However, patient involvement at the local level has remained challenging to implement. A proposal in 2010 to develop a model that included patients as partners into the health care team was not accomplished, signifying the need for further development that takes account of the underlying values and beliefs of professionals working in teams. More recently, the suggestion of involving patients as partners in the team was brought together with proposals for the establishment of peer-support networks. The participation of the NDP Steering Group in the EU-level EMPATHiE project on empowering patients in the management of chronic diseases (EMPATHiE Consortium, 2014) was seen as an important stepping stone to help further the integration of patient empowerment and involvement into the Slovenian health care system. Similarly, the participation of Slovenia in the EU Joint Action on Chronic Diseases and promoting healthy ageing across the life-cycle (CHRODIS, 2014) is perceived as an important activity that is expected to contribute to better integrating prevention, early diagnosis and care of patients with chronic diseases in Slovenia.

The NDP is considered by the Ministry of Health as an example of “good practice” of governance in health policy-making. This perception stems from the observation that all partners were involved from the start, including patients, and it was considered a priority that the process was owned by all partners. The action plans are believed to allow for benchmarking and to encourage cooperation between different partners; national conferences are seen

to contribute to ensuring that diabetes remains high on the political agenda; and the Steering Group provides for instant resolving of issues. As noted earlier, the NDP sought complementarity with other processes and programmes within the health system, and this is seen to have led to the development of pathways to demonstrate and promote solutions of the NDP. The experience derived from these processes is anticipated to inform policy development in addressing other chronic diseases, their risk factors and multimorbidity.

4.2.2 Achievements in diabetes care in Slovenia: a preliminary assessment

We noted in the preceding section that it remains challenging to evaluate the degree to which the National Diabetes Prevention and Care Development Programme 2010–2020 (NDP) has achieved its four core goals: (1) reducing the incidence of type 2 diabetes, (2) identifying people at risk of developing type 2 diabetes and delaying the onset of type 2 diabetes, (3) enhancing early detection of type 2 diabetes, and (4) reducing complications and mortality in people with diabetes. This is in part because of the time it will take for interventions to have been implemented across the country to affect change that is sufficiently large to be detected at an aggregate level and it may be too early to identify discernible improvement in selected health outcomes. Importantly, however, and as noted earlier, data collection has as yet been inadequate to allow for the systematic monitoring of prevalence and incidence of adult diabetes, with a national diabetes register remaining under discussion.

It is also important to note that, while the NDP constitutes the first comprehensive diabetes strategy at national level, a number of initiatives have been put in place in Slovenia over the past 15 years that have, directly or indirectly, sought to address the rising burden of diabetes. One prominent example includes the prevention and early diagnosis of diabetes as part of the national programme on the primary prevention of cardiovascular disease, which was introduced in 2002 (see Box 3, p. 8). Therefore, observed changes in diabetes prevalence and incidence or related process and outcome measures occurring in the early 2010s are more likely to be the result of these earlier initiatives rather than directly attributable to the NDP.

Against this background, this section presents selected process measures indicative of the level of diabetes care, using routinely available data on hospital admissions and prescription data.

Hospital admissions for diabetes-related complications

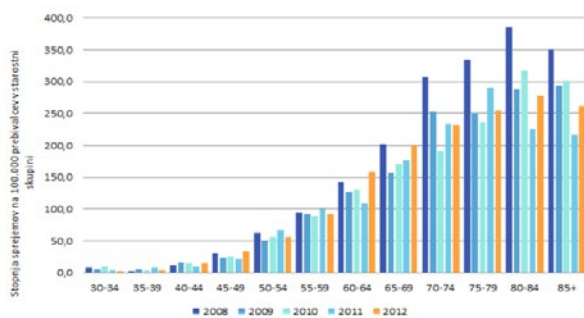
We have noted earlier that the hospitalization rate for certain chronic conditions has been considered as an indicator for the quality of care, arguing that a high

performing primary care system should be able to prevent acute deterioration in people living with conditions such as diabetes and prevent their admission to hospital (OECD, 2015). Section 4.1.1 presented data on hospital admissions for selected diabetes-related conditions for the period 2009–2013. It found that the number of admissions for uncontrolled diabetes without complications tended to increase over time, although the overall change was small. However, considering aggregate trends only may conceal potential differential change in different age groups.

Figure 7 shows the hospital admission rate for chronic complications of diabetes by age group for the period 2008–2012. This suggests that hospitalization rates have fallen between 2008 and 2010 among those aged 70 years and older, with a small increase in hospitalizations thereafter, although the overall rate in 2012 remained considerably lower than that seen in 2008.

Figure 7

Hospital admission rate for chronic complications of diabetes by age group, Slovenia, 2008–2012



Source: National Institute of Public Health (unpublished data on hospital treatments)

It is difficult to explain these trends in the absence of other indicators such as disease prevalence or other more direct indicators of diabetes care. It is, however, noteworthy that death rates from diabetes have fallen steadily in Slovenia since the early 2000s, with a particularly steep decline from 25.9 deaths per 100 000 population in 2003 to 9.1 deaths per 100 000 population in 2007, with a continued further decline through to 2010 (World Health Organization Regional Office for Europe, 2015b).

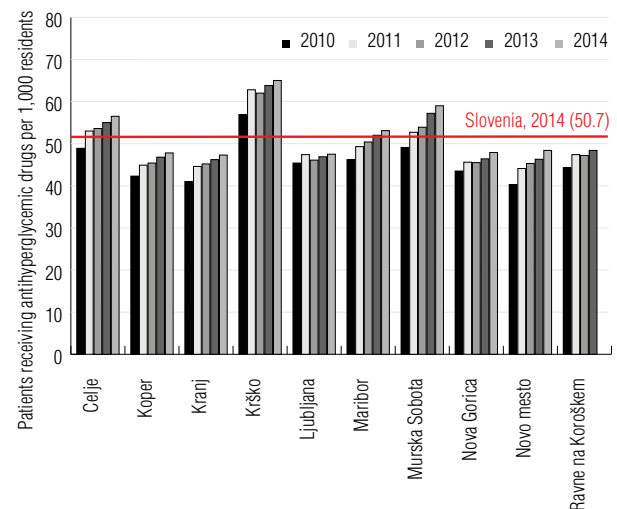
Antihyperglycemic drugs prescribing patterns

Prescription data from the Health Insurance Institute of Slovenia show that between 2010 and 2014 the number of people receiving antihyperglycemic drugs rose by 12.5%. Only a small proportion of patients receive antihyperglycemic agents to treat conditions other than diabetes and the level of treatment with antihyperglycemic drugs is therefore frequently used as a good proxy to assess trends in diabetes prevalence over time. The rate of increase varied by region, ranging from 6.8% in Ljubljana to 20.2% in the Novo Mesto and Murska Sobota region,

although it is important to note that the overall number of patients at baseline receiving these drugs also varied by region (Figure 8). Again it is difficult, in the absence of other contextual data, to conclude with certainty whether this observed increase in prescription rates for antihyperglycemic drugs indicates earlier detection of diabetes, or earlier or more intensive treatment of patients with diabetes, or both.

Figure 8

Number of patients receiving antihyperglycemic drugs per 1000 population, by region, 2010–2014

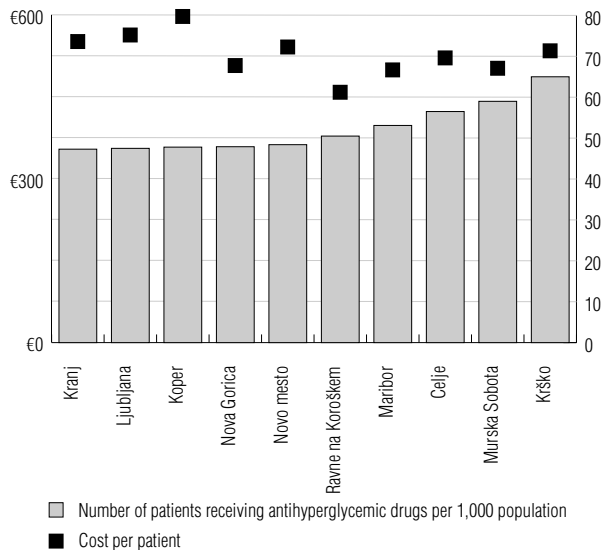


Source: Health Insurance Institute of Slovenia (unpublished data)

During the same period the total expenditure for antihyperglycemic drugs grew by 10%, from EUR 25.6 million in 2010 to 28.3 million in 2014. This equated to an increase in per patient cost from EUR 12.51 to EUR 13.70. Reflecting the variation in prescription rates by region, costs per patient varied, ranging in 2014 from EUR 143 in Novo mesto region to EUR 182 in Kranj region (Figure 9).

Figure 9

Number of patients receiving antihyperglycemic drugs per 1000 population, and cost per patient (in Euros), by region, 2010–2014



Source: Health Insurance Institute of Slovenia (unpublished data)

Antihyperglycemic drugs prescribing patterns changed during the period 2010–2014, with new classes of drugs introduced into the Slovenian market, but their uptake varied by region. Overall, the number of patients receiving human insulin decreased, while the usage of insulin analogues increased. There was an increase in the number of patients receiving metformin (on its own or in fixed combinations), sulphonylureas, DPP4 inhibitors and GLP1 agonists, while the uptake of glinides and acarbose fell (data not shown).

Again, overall the data are difficult to interpret without a better understanding of the underlying need in terms of diabetes prevalence and incidence. Based on available routine data it can be concluded that the number of patients receiving antihyperglycemic drugs has been growing steadily during 2010–2014, with an increase in total cost of the drugs. The number of patients receiving prescriptions for diabetes-specific medical devices also rose, but associated costs rose at a lower pace because of price control measures introduced by the Health Insurance Institute of Slovenia in 2012. Prescribing patterns for antihyperglycemic drugs and medical devices vary across the regions.

4.2.3 Enablers of and barriers to adopting good practice in the day-to-day management of patients with type 2 diabetes

As noted above, in 2008 Slovenia published national guidelines for the management of adult patients with type 2 diabetes. These were updated in 2011 as set out in the NDP, and a new edition of the national guidelines is being prepared. There is no monitoring in place to assess the implementation of guidelines (EURADIA et

al., 2014), however, and anecdotal evidence suggests that guideline adherence among practitioners has remained suboptimal. There are many reasons why the adoption of clinical guidelines in primary care settings in particular remains a challenge. International evidence suggests a range of barriers including lack of awareness, lack of time (workload, length of appointments, administration, for training) or lack of capacity and infrastructure (such as adequately trained support staff or information systems), along with organizational constraints (such as lack of access to specialist services, lack of continuity in primary care and of communication between primary and secondary care) or external constraints such as reimbursement (Cabana et al., 1999).

The following analysis reports on five focus group discussions with different stakeholders that sought to better understand the enablers of and barriers to adopting good practice in the day-to-day management of patients with diabetes in the Slovenian health system. Specifically, discussions sought to explore the factors that prevent health care providers from delivering good quality care in line with the 2011 national diabetes guidelines at the different levels of the system, ranging from the prevention and treatment of type 2 diabetes, the prevention and treatment of chronic complications, coordination of care, education and empowerment of patients, to the evaluation and monitoring of work. Focus group discussions were held with: (1) registered nurses including nurse educators with special knowledge of diabetes who work in secondary care diabetology teams and nurse practitioners working in family medicine model practices; (2) specialist physicians in family medicine; (3) community nurses; (4) diabetologists; and (5) local patients' associations.

The focus group discussions followed a standard methodology, which is described in Appendix A. In brief, focus groups were organized by the Ministry of Health, which invited potential participants by email with a short description of the aims of the group discussions. The sampling strategy sought to recruit participants who represented different levels of health care and regions of Slovenia. All focus groups were conducted in Ljubljana and included between six and eight individuals (registered nurses: 6; specialist physicians in family medicine: 7; community nurses: 8; diabetologists: 6; patients' representatives: 8). Focus group discussions were held between 2 and 11 June 2015 and were audio-recorded, following written consent of individual participants, and moderated by two researchers (DO and SJ). Recordings were transcribed and analysed according to the major themes explored in the group discussions. After the conclusion of each focus group, the moderators prepared a short report which was shared with focus group participants for review. Two focus group participants provided feedback by means of clarifying observations. These clarifications were noted by the study team.

In the following section we report the key observations from each of the focus group discussions. We illustrate the findings with quotes from individual focus group participants, which we have signposted accordingly. It is important to note that these quotes describe the views and perceptions of the interviewed person only; they do not reflect the views of the authors of this report.

Barriers to adopting good practice in the day-to-day management of patients with type 2 diabetes: the registered nurse (diabetes nurse educator, nurse practitioner) perspective

Focus group discussions with nurse educators and model practice nurse practitioners described five key factors that they perceived as compromising their ability to fully adhere to and implement best practice in managing their diabetes patients. These were: *time, knowledge and competences*, along with *administrative constraints and clinical information systems*. However, the relative importance nurses placed on each of these factors varied according to the level at which they were practising. Thus, diabetes nurse educators work at the secondary care level and have received specific training to carry out their tasks. Conversely, nurse practitioners in family medicine model practices are responsible for a wider set of tasks around prevention in patients aged 30 and older, and the routine management of all registered patients with stable chronic diseases (Poplas-Susič et al., 2015); their training with regard to acquiring specialist knowledge about and skills for diabetes care is less extensive.

Thus, a perceived lack of in-depth knowledge about diabetes was mostly a concern mentioned by nurses working in model practices. This lack of knowledge was perceived to be further exacerbated by a feeling of lack of sufficient time for educating patients about diabetes. As a consequence, there was a tendency to provide patients with an “excessive amount” of information at the time of diagnosis, which nurses believed to be stressful for patients and rendered education efforts less effective. There was therefore a perception that patients at primary care level may at times not be provided with the same level of education as those seen at the secondary care level.

On occasion, patients or their relatives would request more information but the option to directly refer patients to education sessions with diabetes nurse educators at the secondary level was seen to be challenged by administrative hurdles, preventing them from doing so:

Model practices handle too much, so nurses cannot have extensive knowledge and cannot provide the same quality as [a nurse] educator. They cannot send the patients for education in diabetes clinics. A patient cannot go there without a referral. When a patient gets a referral, they actually have to be examined by a diabetologist. And so it happens that the patient actually does not need an examination, because he is well monitored by the [family]

*physician; but he needs everything else. We have already received a code from the HHS which a physician [can use for an internal referral for education], but it was taken away from us. This is missing and here is the inequality, because people treated at diabetologist [clinic] get different education than those in model practices.
(Nurse practitioner in a model practice)*

Nurses also noted that patients appear to place a lower value on education received at primary care level, often only taking education “seriously” after they have been referred to a specialist by their family doctor.

A related concern was that of specific competences required to motivate patients and this was expressed by both nurse educators at secondary care level and nurse practitioners in family medicine model practices. Model practice nurses attributed this, in part, to a perceived lack of communication skills. However, overall there was also awareness that, according to their own experience, the most appropriate instructions for patients were those that were practical and would “fit” with the individual patients’ everyday lives. To do so, practical guidance would need to take account of the specific cultural and social context within which people live, with particular challenges faced by those on low incomes, those with difficult working conditions (long working hours, inadequate diet, lack of time or lack of facilities for the application of insulin, etc.), or those from diverse ethnic and cultural backgrounds:

I, for instance, was dealing with an Albanian type 1 diabetic who did not dare tell the man she was about to marry that she was taking insulin. And she did not take the insulin if she could not hide [it]. (Educator)

Lack of specific competences that would enable nurses to take account of the diverse needs of patients was perceived to pose significant barriers to educating patients effectively.

According to the national diabetes guidelines, patient education is recommended to be implemented as a continuing process and is not only to be offered at the initial diagnosis stage. Education should also be made available to patients who transition to insulin therapy. While this transition requires additional knowledge and skills from patients, focus group participants observed that patients did not generally experience this as problematic. However, nurses commented that the transition to insulin therapy was perceived by many patients as an indication of the seriousness of their condition, at which point they tended to become very motivated to engage in education and treatment.

National guidelines further recommend regular patient follow-up education sessions but focus group participants highlighted that this was often difficult to implement because of lack of time and capacity. Instead, follow-up education sessions would focus mostly on more

complex patients, such as those with high blood sugar levels, patients with deteriorating conditions and those whose doctors noticed a lack of knowledge about diabetes.

In addition to time, knowledge and competences, a key concern mentioned by nurses that was seen to hinder the delivery of good quality care was the relative lack of appropriate information systems that would, for example, provide a reminder system to facilitate the set-up of follow-up education sessions or enable the digital collection of data, which at present have to be entered manually:

I lack a very good computer programme. This would be more efficient regarding the time, since we spend a lot of time on taking the notes in charts and processing codes. It would save time and money; we would have more time for patients. (Educator)

There was also a perception that education was undervalued in monetary terms, in particular in secondary care:

We also have problems with achieving points. We have one code for education that gets only a few points [3 points, author's note]. This is absolutely not enough for our input. One patient can be taken care of for one hour and everything is valued the same. We have to put patients in groups to get more points. (Educator)

Nurses practising in family medicine model practices did not face this problem, as their work is not yet being evaluated in the same way. However, there was a perception that their work was generally undervalued:

Model practices have the advantage of not getting points [as they do in secondary care]. The emphasis is on quality. However, we are reproached for not working enough, when, for example, we treat six or nine patients in a day, if we work hard and if they are poorly treated. And this does not even include administration and entering data. But we do enter data – in ten places. And to doctors, who get around to 60 patients in their clinics per day, it seems as if we are doing nothing. But the comparison is quite meaningless, as the method of work is completely different. (Nurse practitioner in a model practice)

Barriers to adopting good practice in the day-to-day management of patients with type 2 diabetes: the specialist in family medicine perspective

Focus group discussions with specialists in family medicine (referred to in the following as “family physicians”) described a range of factors that they perceived would compromise their ability to fully adhere to and implement best practice in managing their diabetes patients. There was commonality with registered nurses on a number of factors, while the constraints these factors were perceived to impose reflected the specific professional roles occupied by family physicians. Factors noted as relevant were: *time,*

professional role and competences, decision support and coordination, along with administrative constraints and clinical information systems.

The factor of time, or lack thereof, was mentioned throughout the focus group discussion and was seen as a major impediment to implementing recommendations of the national guidelines for diabetes in the primary care setting. There was a perception among focus group participants that because of their daily workload they did not have the opportunity to provide comprehensive treatment and support patients in changing their lifestyle, which was perceived to be time-intensive; instead they had to prioritize the management of acute disease. This was seen as challenging for physicians in their professional roles, considering themselves as the central point of care for patients during which they establish relationships and trust with patients:

Decency! These check-ups are not decent to patients or their families. I feel humiliated. I walk quickly and I take off the patient's clothes so as to act quickly, because there are thirty people waiting in front of the clinic, and there is a two-week waiting period, which is against the law and I could be penalized. But all my time is booked, and I stay one or two hours longer at work and am not paid for this. (Family physician #3)

Perhaps reflecting their own understanding of their role in building relationships with patients, and their overall professional image and values, there was a reluctance among family physicians participating in the focus group to accept recent moves, at the national level, to delegate tasks from doctors to nurses, such as that of motivating and leading the patient, and an expressed criticism that doctors would be better placed, and more efficient, in exercising that role. At the same time, there was some recognition that family physicians might lack specific competences that would enable them to take on a more motivating role. It was highlighted that acquiring relevant skills was not systematically included in their training, although some participants played down this lack of competences, noting that there is only “so much a doctor can do”:

I have to explain to the patient the mechanism of their disease and medicine. To help them understand why they must take a certain substance, intake chemicals, because no one likes taking drugs. I tell them what it means if they do not take the drugs. It is not enough just to tell them; I have to repeat this five or ten times during various visits. And this should not be the case. I can do everything professionally, but if the patient does not understand this at home, everything is in vain. (Family physician #1)

A key challenge that was also mentioned throughout the focus group discussion was a perceived lack of coordination between care levels in particular and the

resultant consequences for the patient, who might fall between the cracks because of a lack of communication and sharing of information between providers:

When you examine people who are treated by several clinical specialists, we rely on the fact that they are being treated by a diabetologist, while the diabetologist may rely on the fact that they are being treated by us. And when you have some time and you say, well, now we can have a longer talk, you find out that [the patient does] not have a clue. They do not know anything about the diet; they have not had their feet checked. I did not check them because I thought that was done by specialists.

(Family physician #5)

There was an expressed need, by some, for better support mechanisms between care levels to enable more comprehensive treatment and, in their view, safer care, through, for example, access to specialist expertise and experience or joint consultations with specialists at the secondary care level:

The thing I miss is when people already take medicine, there is no possibility of consulting the secondary level. If a patient is regulated and I control them, we somehow manage. But what if I have problems? We often deal with polymorbid patients. Why can't I consult someone at that moment when the patient is in front of me, so that someone could help me get out of that situation? This would mean many fewer referrals and hospitalizations; patients would feel safer, and I would feel safer.

(Family physician #3)

In this context, participants gave an example of good practice at the University Medical Centre Ljubljana, which had established this type of consultation between levels of care and it was perceived to *function very well*.

Some focus group participants also highlighted a perceived lack of cooperation even within teams, pointing to the potential of family medicine model practices to overcome some of these problems while also noting the potential challenges introduced with their establishment and the risk of further fragmentation within the system:

We are simply too separated; too much responsibility was transferred to nurse practitioners in model practices; these responsibilities should be assumed by doctors; there is insufficient cooperation in these teams, although I believe that the model practices project is excellent in these circumstances. But still, I fear that we are heading in one direction where we will once again be separated within primary health care. (Family physician #6)

As in the discussions held with nurses, one key means to enhance communication and cooperation stressed by family physician participants was that of information systems:

In this IT age, we do not have a system for clinical specialists to send medical reports directly to our e-mails. This is a disaster. (Family physician #4)

Such systems were seen to be core to the ability to provide comprehensive care, through reducing unnecessary duplication of examinations and procedures at different levels, but also by supporting physicians and their practice teams in ensuring regular patient follow-up and so strengthen their scope for early detection and prevention of complications:

We perform work manually. If we had an information system to warn us that a person has not had a preventive check-up for five years, it could automatically invite such patients. So we can invite them only if nurses go through the medical files. This takes up a lot of time.

(Family physician #3)

Information systems currently in place were seen to pose obstacles because their main remit is for administrative purposes (that is, reporting to the health insurance) and to be highly fragmented: *"each health clinic has its own, and most systems are inappropriate for clinical work"* (Family physician #2). An associated challenge noted by some focus group participants was the monetary value placed on specific services, in particular preventive activities, which was perceived to be undervalued (and an issue that was also raised by registered nurses as described earlier):

Quick services are valued most by HHS; for instance, when a person comes with angina and you indicate a check-up, this will be substantially better financed than someone for whom you took an hour and solved many problems, which will be financially positive for the state in the long term, because such patients also present a smaller burden for health care. But it is catastrophically evaluated, which is completely illogical! (Family physician #6)

Barriers to adopting good practice in the day-to-day management of patients with type 2 diabetes: the community nurse perspective

Focus group discussions with community nurses echoed some of the concerns described by registered nurses and specialists in family medicine, in particular regarding a perceived lack of communication and coordination between the different care levels and the potential role of information systems in overcoming some of the associated shortcomings of the delivery system. At the same time, community nurses participating in the focus groups highlighted a distinct set of challenges that centred, to a great extent, around issues of *professional autonomy*, alongside perceived constraints linked to the *definition of their role* within the delivery system.

Community nurses in Slovenia are principally tasked with three core functions: (i) health visiting of individuals, families and communities; (ii) care during

pregnancy, puerperium and newborn at home; and (iii) care of the patient at home (Železnik et al., 2011). Against this background, one of the core challenges mentioned by community nurses participating in the focus group discussion that was seen to impede on their ability to provide good quality care as set out in the national diabetes guidelines is the gradual shift of their role from primarily preventive activities towards a stronger focus on curative services. This was largely attributed to a general change in the context within which community nurses operate, such as shorter length of stay in hospital, which was perceived to have increased their workload, paired with restrictions on the scope of practice as set out in reimbursement regulations:

When I visit the Roma on a daily basis, I visit a mother with a new baby; I see another one pregnant, and ask her if she is going to have a check-up, how they are eating, whether they have washed, what water they used to wash, etc. I can measure her glucose, but I cannot register this service, because I do not have the right to visit a pregnant woman prior to the last trimester. And we will not be successful, we will do nothing, until we reach the level when I can say, yes, this is necessary, I will do this, and will also register the service and assess it. The story is the same with all pregnant diabetics. (Community nurse #1)

Community nurses who participated in the focus group felt very strongly that they had a key role to play in the prevention of disease, believing this to be their major strength because they are situated within local communities. Furthermore, through their daily encounters with people in their own homes they believed to have great opportunities for the detection and management of chronic diseases such as diabetes, but the current organization of the delivery system has, in their view, reduced these prospects considerably.

This reduced scope of practice was seen to be further exacerbated by a perceived lack of autonomy, as their home care visits require a prescription of a primary care or hospital physician. As a result, community nurses felt that they cannot fulfil their whole potential by providing or initiating services that they would find necessary, even though they often visit people who do not attend preventive visits at the primary care level, particularly members of marginalized groups and the elderly:

[Because of the HIIS rules] we can now visit patients only if they are alone and socially endangered . . . I cannot visit an elderly man in a family, check his blood pressure, his glucose level, activate his personal doctor, activate a specialist clinic at the primary level and warn that this person is living in circumstances where diabetes cannot be treated and managed appropriately because he does not

have food, or water to wash legs at the primary ulcer stage. We could do many things, but our hands are tied. (Community nurse #1)

This perceived lack of autonomy was a recurring theme throughout the focus group discussion, with one participant giving the example of diabetic foot treatment to illustrate the practical implications this might have for patient care:

We already had an example of [a] discrepancy like this one: [a] diabetic patient was treated for his/her diabetic food, for example, at the clinic for infections in [location]. [The] surgeon provides a minor health intervention, using a special coating for the wound named X. This special coating X is defined on the discharge letter. Or it can be written on the medical clearance that for the bandaging, the bandage X has to be used. However, our health centre purchases another coating for bandaging, for example, product X1. When the patient returned to the surgeon for a check-up after one month, having had a coating X1 on the wound, the surgeon wrote on the medical clearance: "The cause for deterioration of the patient's wound is the failure to comply with my given instructions by the community nurse." This means that it was my responsibility that the situation of the patient's wound worsened by not obeying the surgeon's instructions. (Community nurse #2)

A further theme that was repeatedly mentioned by focus group participants was the challenge posed by a perceived lack of communication and coordination between care levels. This latter issue was also raised by registered nurses and family physicians in primary care, as we have shown above. Community nurses observed that this further hampered the quality of care they would be able to provide to patients:

I mostly lack an information system that functions connectively among specialists, as well as between us and the family doctor. I often receive patients from the hospital without any information on what was happening in the hospital; they have a temporary discharge certificate and an order for education three times per day, or insulin three times per day, as well as completely different information than [that] received at the hospital. (Community nurse #2)

This lack of communication was perceived to pose substantial challenges to ensuring continuing care for vulnerable people in particular:

The problem is in the lack of continuity, so that a patient could continuously pass from the secondary to the primary level and from the family doctor to community care.

Nothing is determined and communication is weak, since it mostly depends on how well you get along with the physician. (Community nurse #3)

However, there was a clear sense that communication should go both ways and recognition, among focus group participants, of the responsibility of community nurses to equally report back in order to optimize the patient journey:

I think that other service providers should require feedback from us. We can visit a diabetic for six months and we know all their problems and improvements, and then they visit a specialist for check-up and do not get any feedback from me. (Community nurse #1)

Finally, and again similar to registered nurses and family physicians in primary care, one issue that community nurses identified as a barrier towards executing their role in line with national diabetes guidelines, in particular with regard to patient support, was that of reimbursement of services provided. Thus, focus group participants highlighted the frequent occurrence of a mismatch between services prescribed by the relevant physician and the actual work that, in the view of the community nurse, was required:

I made five visits, and I did five [more] without getting paid. I spent so many visits on teaching a man with dementia to switch on his glucometer, to open the strips bottle, to take the strip out and put it in the meter. He lives alone and his only relative lives in England. I had to visit him ten times to teach him the basics of self-care. And you cannot write and register this anywhere. I do this at my own risk, because all the visits that I do off the record could cost me a fine of 800 euros if I was caught in an inspection. (Community nurse #1)

Barriers to adopting good practice in the day-to-day management of patients with type 2 diabetes: the diabetologist perspective

Focus group discussions with diabetologists identified a range of factors that they perceived would compromise their ability to fully adhere to and implement best practice in managing their diabetes patients. Similar to specialists in family medicine, there were concerns about their *professional role and competences*, although the discussion was dominated by a recurring theme around *capacity* and, linked to this, *access*, with *administrative constraints* and *information systems* also seen as important factors.

As noted above, the role of diabetologists in the Slovenian health system is to provide specialist care to people with diabetes requiring insulin. Focus group participants highlighted throughout the discussion that the delivery of good quality diabetes care at specialist level was, in their view, largely compromised by a general lack of capacity in terms of workforce at secondary care level. Diabetologists had to fill-in and work in a range of clinical

departments, such as cardiology, neurology or emergency care, to treat hospital inpatients more widely. As a consequence, there was a perception that diabetologists were unable to provide comprehensive diabetes treatment but instead had to focus, largely, on the management of acute issues such as glycaemia, with fewer opportunities to also manage or screen for chronic complications.

I think that there is quite a substantial organizational obstacle at the secondary level, because the tasks and work of individual teams of doctors are not sufficiently defined. We are "amphibians" and work in different departments and clinics. No one knows how much there is to do or what they have to do, and there are no criteria. (Diabetologist #1)

There was acknowledgement, however, that this was not universally the case across all of Slovenia, with participants from one tertiary level facility and one medical centre noting that they did not face these challenges, mainly because diabetologists were not being allocated to different departments. Yet, where this was the case, focus group participants pointed to the implications this would have for equitable access to good quality diabetes care, with those institutions that internally reallocate diabetologists to different departments seen to undermine the effectiveness of team working between the diabetologist and the nurse educator. This was further believed to negatively affect the level of support that teams could provide to diabetes patients in terms of patient education. Some participants also expressed concern about the differences in education and competences of nurse educators, which again would impact the quality of education and lead to variation across the country.

Reflecting on patient education more generally, focus group participants acknowledged that while they felt strongly about their core role in educating patients, they might not necessarily have the related competences required to deliver this in an effective manner, in particular with regard to taking account of the social context and circumstances within which patients live. In this context, focus group participants highlighted that doctors in particular tended to (still) exhibit a rather paternalistic attitude, which would hinder the notion of establishing a partnership with the patient and within the team towards comprehensive treatment and the setting of goals together with the patient and their carers:

Some say that the essentials of non-adherence and non-compliance of a patient lie in the fact that the patient and doctor are pursuing different goals. And there is quite a lot to this. We are actually raised to assume responsibility and take control of the patient when this is necessary if we want to treat an acute disease. As doctors, we were trained to care for acute diseases. I was trained in the same way, and in this way you can quickly slide into paternalism. And here is a barrier. What education is appropriate and how can we provide it? In a way that

makes patients obedient, or that shows them the knowledge, so they can be free and freely decide what to do? And that they will get support from the system. (Diabetologist #1)

Against this background, diabetologists pointed to the role of the medical curriculum during the training of doctors which, in their view, was focused, largely, on acute care and placed little emphasis on the need for comprehensive care and development of partnerships in health.

Finally, and similar to nurses and family doctors, a further concern expressed by diabetologists revolved around a perceived lack of communication and of coordination between care levels, which would also hamper the provision of good quality care:

On a wider general level, I am also interested in the findings on my referrals, especially for polymorbid patients, where quite a lot of diagnostic work has been done. This is quite a problem. (Diabetologist #4)

A particular issue that was raised was the need for a diabetes registry at national level, which was seen to be core for the monitoring and evaluation of the quality of care provided by individual physicians and by the field of diabetology as a whole.

Barriers to adopting good practice in the day-to-day management of patients with type 2 diabetes: the diabetes patients' association perspective

Perhaps not surprisingly, focus group discussions with representatives from diabetes patients' associations mirrored several issues around the day-to-day management of their disease that were raised by the various provider groups described above, in particular those raised by diabetologists. Issues mentioned in this context included *care continuity* and *coordination*, although issues of major concern to patient representatives' participating in the focus group evolved around *waiting times* and variation in the *quality of care* provided, *education* and *patient involvement in decision-making*, and, importantly, *stigma* associated with diabetes, which raises wider questions around the effectiveness of awareness raising in Slovenian society.

At the outset it is important to note that focus group participants clearly distinguished between the quality of care provided to patients with type 1 diabetes and those with type 2 diabetes on insulin treatment, which they considered to be well organized, in contrast to that provided to type 2 diabetes patients more broadly. This observation was also shared by family physicians and diabetologists (data not shown). Discussion participants saw a particular challenge for patients with type 2 diabetes, which they believed to be in part related to the associated

financial burden placed upon them: *"The problems are type 2 patients on pills who have to pay for their own appropriate medication"* (Patient representative #1):

I am such an old diabetic that I have the syndrome of being unaware of hypoglycaemia and I have sensors. Health insurance provides 40 sensors per year. The sensor works for one week, and there are 52 weeks. This means if you want to be safe, you have to buy at least 10 sensors. Five sensors cost around 300 euros. (Patient representative #2)

Equally or perhaps more important may, however, be the observation that access to good quality education for people with type 2 diabetes was perceived to be highly variable between care levels, and across the country. For example, reflecting on the primary care level, focus group participants pointed to the value of family medicine model practices which would provide education but such model practices were not yet available to all patients, and this was seen to impact on the quality of education received. As a result, the quality of education might be lower, especially compared to patients with type 1 diabetes, who receive education by nurse educators with special knowledge of diabetes at the secondary care level:

The experience in the association with model practices shows that we have taken a step forward. However, many doctors have still not decided to opt for these clinics. The [name of health centre] has educators who teach patients about the disease, but they are mostly type 1 patients. Type 2 patients are never educated, but they are around 90%. What is happening to them now? (Patient representative #4)

At the same time, focus group participants also noted that even the secondary care level would face challenges in the delivery of good quality education, which they attributed, mainly, to an observed high workload among specialists. This issue was also raised by diabetologists as described above. Patient representatives participating in the discussion believed that some of these obstacles could be overcome through enhanced cooperation between patients' associations and diabetologists.

A further concern revolved around the provision of regular check-ups and timely access to specialist care, although focus group participants noted that patient experience in terms of waiting times varied across regions:

HbA1c should be checked every three months, but it is not because patients do not get their turn at diabetologists; the family medicine practice does not measure HbA1c. (Patient representative #1)

There is a problem of getting to a specialist. This means that diabetics have specific problems; I, for instance, got retinopathy. And this is the point where it is very hard to get a referral. Waiting lists are very long, especially for kidney

and eye examinations and others. Now we, as presidents of associations, have easier access.
(Patient representative #3)

It may be interesting to note that participants in the patients' representative focus group tended to focus on experiences at the secondary care level, mostly reflecting the care provided by diabetologists. And while participants tended to value this experience generally as good, they did observe that what diabetologists sought to achieve did not necessarily match patient preferences:

They are too target-oriented. They set goals. But each person has their own problems. Someone's glucose level 7 is more ideal than 5. (Patient representative #5)

This notion very much mirrors diabetologists' own perception of the need to actively involve patients in the care process, to work in collaboration with patients and view them as partners rather than passive recipients of care, as described in earlier sections of this report.

Again mirroring diabetologists' perceptions of the care process, focus group participants also pointed to the challenge posed by capacity issues at the secondary care level, which required diabetologists to work in different departments, at least in some parts of the country. This, according to patients' views, would undermine care continuity and lower care quality more broadly:

There is another problem, because diabetologists constantly change, and you get a different one for each check-up. I recently had a check-up with a third diabetologist. And he did not know what to advise me to do to reach a goal. (Patient representative #4)

One further key challenge raised by focus group participants that perhaps goes beyond the direct responsibility of the service delivery system in terms of managing diabetes but that was seen to be of core importance in proactively addressing the burden of diabetes in Slovenia was that of public awareness and understanding of diabetes. Thus, participants highlighted the challenges faced by people in Slovenia who have been diagnosed with diabetes because of the stigma associated with this condition:

Diabetes still has a bad connotation, i.e. now I won't be able to eat, but this is not true. People are afraid of this, and they don't want it. Even diabetics don't want their mail to be put in their mailboxes, because they don't want their neighbours to know that they have diabetes.
(Patient representative #2)

Patient representatives highlighted the need to enhance the awareness about the causes of diabetes not only to reduce the associated stigma but, more importantly perhaps, to address misconceptions among the wider public about risk factors so as to strengthen prevention and early detection of the condition:

I see that people think quite plainly that you get diabetes if you eat sweets. This is not true. It is certainly not good for you, because that is not healthy food, but you don't get diabetes just because of that. (Patient representative #6)

In this context, focus group participants pointed to the potential role mass media could usefully play to raise awareness. A number of existing examples of good practice were, however, highlighted, such as the national competition in knowledge about diabetes, which takes place in primary schools.

4.2.4 Discussion

This section sought to better understand the enablers of and barriers to adopting good practice in the day-to-day management of patients with diabetes in the Slovenian health system. Specifically, discussions explored the views of different stakeholders involved in diabetes care at the primary–secondary care interface, as well as those receiving care, on the factors that they believed prevented health care providers from delivering good quality care in line with the 2011 national diabetes guidelines. Before discussing the findings of the focus group discussions, it is important to emphasize that observations reported here are based on small samples of health professionals working in different settings across Slovenia. It is therefore difficult to generalize from these findings to the wider population of health professionals across Slovenia. However, insights offered by focus groups provide an important starting point for the further systematic exploration of enablers and barriers towards implementing best practice in the Slovenian health system context to inform policy development.

We noted above that international evidence suggests a range of factors that were found to hinder the adoption of clinical guidelines in primary care settings in particular (Cabana et al., 1999) and the focus groups we conducted with family physicians, nurse practitioners, community nurses and diabetologists in Slovenia confirmed many of these barriers. They include lack of time and of capacity and infrastructure, as well as organizational and external constraints. Conversely, lack of awareness of guidelines that has been described internationally as an important barrier does not appear to be an issue in the Slovenian context as such. Focus group participants across different stakeholder groups were able to reflect on the existing guidelines for the management of type 2 diabetes in adult patients. However, it is important to recognize that awareness of guidelines as such does not necessarily mean that individuals are familiar with the content of the guidance.

Beyond the factors listed above, focus groups with health care providers in Slovenia described a range of additional aspects, such as issues around role definition and professional boundaries (family physicians and diabetologists), professional autonomy (community

nurses), along with diabetes-specific knowledge (nurse practitioners) and competences in relation to patient education and empowerment (nurse educators, nurse practitioners, family physicians and diabetologists). Focus groups with patients' associations further highlighted the role of public awareness and stigma as an important impediment to advancing quality diabetes care in Slovenia. We briefly discuss these factors in turn.

Time

Lack of time was mentioned by most focus group participants as a core challenge towards implementing best practice in diabetes care in line with the national guidelines. Family physicians in particular highlighted the high volume of patients they were seeing, which they felt would prevent them spending sufficient time with individual patients to provide comprehensive treatment and support. Evidence suggests that there is wide variation in the patient list size among family physicians in Slovenia, with one survey of 41 practices in 2012 finding list sizes ranging from just over 850 to almost 3,200 patients; the mean list size was given at around 1,750 patients (Živčec Kalan et al., 2012). One other cross-sectional survey of 36 family medicine practices in Slovenia found that practices with low (<1,500) or higher patient numbers on their list (2,000 patients and more) were less likely to provide lifestyle advice to younger people on cardiovascular risk factors and prevention compared to family physicians with medium-sized patient lists (Petek et al., 2013). Thus, the number of patients on the list may impact on the quality of care delivered by family physicians.

However, at the same time it is also fair to conclude that in a number of cases the perception of lack of time appeared to be conflated with a lack of clarity with regard to the specific roles and responsibilities of the different professional groups in relation to providing diabetes care. For example, family physicians participating in focus groups commented that it was their role to guide the patient, considering their function as the central point of care for their patients. There appeared to be some scepticism among some family physicians about the new roles assumed by nurse practitioners in primary care (model practices) in patient education, which previously had been the task of the family physician. Conversely, there appeared to be a perception among some diabetologists that guiding the patient in terms of education and support was at the core of their role.

Reservations such as those expressed by some focus group participants, as well as lack of clarity about professional boundaries, if common among these professional groups across Slovenia more broadly, are likely to limit the potential of new forms of care, in particular the shift from secondary to primary care envisaged by the concept of the family medicine model practice described above, and within this, the role of and

scope of action for the nurse practitioner in particular. Evidence from a recent systematic review suggests that introducing specialized nursing practice for chronic disease management into the primary care setting can benefit outcomes such as a reduction in hospitalizations and improved management of blood pressure and lipids among patients with coronary artery disease as well as patient satisfaction where specialist nurses (such as nurse practitioners) work together with physicians compared to physicians alone (Health Quality Ontario, 2013). Recent empirical evidence from Slovenia appears to confirm these findings, although further robust empirical evidence on the impact of family medicine model practices in Slovenia may be required. Thus, a retrospective cohort study of 16 family medicine practices in Slovenia found that patients who received education about cardiovascular disease risk factors from nurse practitioners in family medicine model practices had significantly lower levels of systolic blood pressure and cholesterol at their control visit and practised regular physical activity significantly more often than patients advised by family physicians in regular family practices (Klemenc-Ketis et al., 2015).

Introducing new roles into a given system is widely acknowledged to create challenges for those affected (McKee et al., 2006). As family medicine model practices are further rolled out in Slovenia, there may be a need to perhaps adopt a more integrated programme for change, involving mechanisms to ensure that as new ways of working are adopted, old ones are abandoned, and that the needs of those giving up responsibilities are being considered accordingly. McKee et al. (2006) highlighted that change is likely to be easier to implement within a supportive or positive culture that takes into account aspects such as staff satisfaction and development (including providing support for training and development); strategic and systematic management of the skill mix change, which is coordinated by senior management; and the development of a methodology for change that is shaped by employee participation.

Capacity and infrastructure

Lack of capacity was mentioned as an issue of concern by some (although not all) diabetologists participating in focus groups. They reported that they had to compensate for shortages of medical staff in hospital more broadly and this would in turn restrict their ability to fulfil their role with regard to caring for people with diabetes. Clearly, where this is the case this highlights a more systemic challenge of workforce planning and skill deployment in hospital, which may require further exploration in order to better understand the context of and conditions for staff working in hospital.

A key challenge highlighted by the majority of focus group participants was that of information technology, and in particular the lack of adequate clinical information

systems that would allow for creating registries for care planning and follow-up, provide reminder systems to help comply with guidelines or simply allow for better communication across providers and care levels. Clinical information systems have been described as one of the core components of providing high quality care for those with chronic health problems (Wagner, 1998). We will return to the role of integrated clinical information systems in Section 5.1 of this report (see also Box 8), although it is important to note that as part of the national diabetes plan diabetes-related data are envisaged to be used as a model for making data accessible to providers through electronic health records. Anticipated to be implemented from the autumn of 2015, this “test case” may go some way towards responding to the requests for better information system support expressed by focus group participants.

Organizational constraints

Organizational constraints – such as lack of access to specialist services, lack of continuity in primary care, and of communication between primary and secondary care – were mentioned by all focus group participants, although with different emphasis placed on different aspects. There was an expressed need for information sharing and information systems more broadly, as indicated above, and which we will address in more detail in Section 5.1 below. Family physicians and nurse practitioners in family medicine model practices also mentioned the lack of opportunity of having more direct access to decision support, such as joint consultations with secondary care specialists in the case of family physicians. The international evidence of effectiveness of, for example, shifted outpatient clinics, in which hospital specialists visit premises outside the hospital site to provide care, specialist attachment to primary care teams, or shared care models, in which a hospital specialist and a primary care practitioner agree a joint management plan that specifies which elements of care for a particular patient are to be delivered by each clinician, remains mixed (Winpenny et al., 2016). However, a number of countries have introduced consultation liaison. For example, in Finland, where health centres employ or contract with a specialist to deliver clinics, the visiting specialist may offer a joint consultation with the GP to review a patient’s case (Nolte et al., forthcoming). In the Netherlands a number of GPs in some regions team up with specialists for joint consultations in primary care, and these have been linked to fewer referrals to secondary care, and fewer diagnostics in secondary care.

External constraints

External constraints mainly concern reimbursement issues and these were seen to impede on the degree to which health care professionals specifically in the primary care sector felt able to provide care in line with the national guidelines. There was a perception that

the current reimbursement structure would incentivize acute health problems and interventions over advising or counselling patients, which is arguably more difficult to quantify and monetize. Challenges around payment and reimbursement for chronic care are not unique and, indeed, alignment of incentives, or lack thereof, has been identified by a number of countries as a key factor in enhancing chronic care more broadly and care coordination specifically (Nolte & McKee, 2008). In response, a number of countries in Europe are experimenting with different payment schemes to incentivize chronic and coordinated care at the primary care level in particular (Nolte et al., 2014). The issue of provider payment is discussed in greater detail in the report on Activity 3 of the Slovenia health system review.

Professional autonomy

A perceived lack of professional autonomy was seen by community nurses participating in focus groups to be a major obstacle in delivering quality diabetes care in line with existing guidelines (and chronic care more generally). There was a recognition that the role of the community nurse had changed over time, moving away from a primary focus on preventive activities towards a greater emphasis on curative services, as a consequence of the changed health service and demographic context, leading to a greater case load. A particular challenge raised by community nurses was that of reimbursement rules that were seen to restrict the scope of practice in particular as far as preventive activities were concerned, while delivery of curative services was seen to be restricted as these can only be provided upon prescription (“order”) by a physician.

With an increased emphasis on moving care out of hospital into the community, the role of the district nurse is being (re)considered in several countries, seeing them play a core part in providing care to people in their own homes as well as in supporting the better coordination and integration of care both within the community as well as across sectors. Examples include the Netherlands (NIVEL, 2015), England (Department of Health, 2013) and Scotland (NHS Scotland, 2014). Similarly, if community nursing in Slovenia is to contribute to strengthening care outside hospital and enhancing care coordination, there may be a need to reconsider the current restrictions placed upon community nurses’ scope of practice, both in terms of reimbursement modalities as well as more widely with regards to professional regulation and role definition.

5. Challenges faced by people with multiple care needs

One of the core challenges facing health systems in Europe and beyond is the rapid rise of people with multiple health and care needs. These tend to be more common among older people and an estimated two-thirds of those who have reached pensionable age have at least two chronic conditions (Violan et al., 2014). However, recent evidence from studies of primary care showed that a sizeable number of younger people also carry the burden of multiple diseases (Barnett et al., 2012; Violan et al., 2014). Understanding of the burden of multimorbidity remains patchy, with prevalence estimates ranging widely depending on the setting and assessment method (Diederichs et al., 2011). At the same time, available evidence points to increased mortality and reduced physical functioning among people with multimorbidity, along with higher use of health services and associated costs (France et al., 2012). The complexity of needs arising from the nature of multiple chronic conditions, in combination with increasing frailty at old age in particular, involving physical, developmental or cognitive disabilities, requires a rethinking of delivery systems and the need to bring together a range of professionals and skills from both the cure (health care) and care (long-term and social care) sectors to meet those needs (Nolte & McKee, 2008).

This chapter explores the core challenges to, and examples of, good practices in the management of people with multiple care needs in the Slovenian health system as perceived from different professional perspectives. It focuses on two lines of enquiry: first, it provides an exploratory overview of experiences and views of key stakeholders representing different professional perspectives on the day-to-day management of a hypothetical service user with multiple care needs. Second, the chapter focuses in on a specific element of service delivery, namely the transition from hospital following an inpatient stay to the patient's home or another institutional setting such as a nursing home. Evidence suggests that older people with multiple care needs are not only more likely to be hospitalized (de Souto Barreto et al., 2014), but that their discharge from hospital is also more likely to be delayed even though they may be medically well enough to leave hospital, and this has been associated with negative consequences for the health and well-being of those concerned (Vetter, 2003; Bryan, 2010). Discharge planning has been suggested as one means to reduce delayed discharge, and available evidence suggests that supported discharge in particular may lead to improved patient outcomes such as reduced disability (Miani et al., 2014). A better understanding of the experiences of managing patients with multiple health and care needs, and the processes involved in delivering specific elements of the patient journey, can help to inform

strategies to enhance the ability of the Slovenian health system to better respond to the rising burden of complex care needs.

5.1 The management of people with multiple care needs

This section seeks to explore the core challenges and experiences of good practices in the management of people with multiple care needs as perceived from different professional perspectives. The assessment was carried out by means of a qualitative survey of key experts representing different professional perspectives on the day-to-day management of a hypothetical service user with multiple care needs.

5.1.1 Methodological approach

Data collection used a series of interviews with key informants representing different professional perspectives on the day-to-day management of a hypothetical service user with multiple care needs (Box 6).

Building on the hypothetical service use described in Box 6, we developed three principal scenarios of level of need, in line with Leutz's (1999) identification of dimensions of service user need:

1. *mild-to-moderate but stable condition*: long-standing type 2 diabetes, neuropathy, retinopathy and cataract, arterial hypertension, dyslipidemia, chronic obstructive pulmonary disease with occasional exacerbations, and a leg ulcer; the patient is managed by her primary care team in a community health centre or in a model practice.
2. *moderate level of need*: her condition deteriorated so she was referred to an outpatient diabetology clinic, where she was recognized as unstable. As she also experienced deterioration of arterial hypertension and COPD, she was eventually admitted to hospital.
3. *high level of need because of unstable condition following hip fracture*: the patient was transferred to a hospital emergency department and admitted to the traumatology unit. She was then transferred to a long-term hospital care unit and subsequently to a nursing home.

These three principal scenarios were then set in the context of different care level or provider contexts, so arriving at a total of seven scenarios: (i) primary care (community health centre, family medicine model practice); (ii) specialist outpatient clinic; (iii) outpatient clinic referral to hospital; (iv) referral to trauma department within hospital; (v) transfer from secondary

Box 6**A hypothetical service user with multiple care needs**

The patient is a 76-year-old woman who lives alone in her own home. She has long-standing type 2 diabetes (insulin 4x daily, neuropathy, retinopathy and cataract, with 5–7 episodes of mild hypoglycaemia monthly), along with arterial hypertension, dyslipidaemia, chronic obstructive pulmonary disease (COPD) with occasional exacerbations, and a leg ulcer. She is also overweight, with a BMI of 27, but she has recently lost 5% of her bodyweight due to problems with eating, since she broke her dental prosthesis three months ago. Her sight is poor due to moderately severe retinopathy. She is on multiple medications; in addition to insulin, she takes three medicines for hypertension, including diuretics, lipid-lowering agents and aspirin; she also has two inhalers for COPD. On occasion she relies on sedatives to help her sleep, as well as painkillers, to treat her bone and back pain which she has been experiencing frequently recently. She feels best when her blood pressure and blood glucose are neither too high nor too low. She is somewhat reluctant to frequently monitor her blood pressure and blood

glucose and makes measurements less frequently than advised. Although she is able to go for short accompanied walks, she prefers to stay indoors and she has also been feeling a lack of energy and has had difficulty concentrating. Her son has seen her somewhat subdued in recent months.

She lives in an old, multi-storey house. The bedroom is on the first floor. Heating is on solid fuel. She can manage stairs, but with some difficulty. She has three sons. Their birth weight was at least 4 kg. During her last delivery she was severely hurt. She lives alone, taking care of herself; she cooks, but has difficulties with bathing. She does not drive a car any more, nor does she use public transport. She otherwise likes to live in her house. She dislikes going to the doctor. She would like to do her own shopping and go for a short walk, including visits to her neighbours or son. Her major complaints are loneliness, pain, complex treatment and medication plan.

One of her sons lives in the same town but not close by. He does major purchases for her, and he also manages her business at the bank. He is middle-aged and employed, and they are in good relations. He earns an average salary and his mother receives an average pension. Her other two sons both live in another city.

care to nurse-led ward within hospital; (vi) discharge from secondary care to nursing home; (vii) referral from nursing home to rehabilitation facility.

Key informant interviews built on the aforementioned scenarios. In brief, interview participants were presented with the case of the hypothetical service user and her hypothetical journey through the health system. The interview participant was then asked to describe, in their own words and arguing from the background of their own professional experience, what would usually happen with such a patient, the obstacles they would encounter in supporting or managing such a case, and their views on the experience of the patient as she passes through the system. Interviewers then followed up with focused questions to explore further the experiences and perspectives described by key informants. Participants were also invited to describe examples of good practice as implemented in the Slovenian health system where appropriate.

Interview participants were drawn from a convenience sample of different health care settings and health care professionals in three regions in Slovenia, representing one urban setting (Ljubljana region) and two rural settings, one with more favourable economic conditions (North West region) and one more deprived region (North East). Participants were identified through leaders of their professional groups in each setting, and approached directly or by email by the researchers. Potential participants were provided with information about the purpose of the study both through a formal letter from the Ministry of Health and verbally by the interviewer/s. Participation in the interview process was entirely voluntary. Those agreeing to be interviewed were asked to sign a consent form.

Interview participants represented different providers or stakeholder groups in each of the three regions. These were: a community health centre; a family medicine model practice; an outpatient specialist clinic attached to a hospital; a hospital; a nursing home; and a rehabilitation centre. We invited one representative for each provider or stakeholder group (Table 1).

A total of 39 interviews were conducted by four interviewers in May and June 2015; they were audio-recorded following written consent from the individual participants. Recordings were transcribed and analysed according to the major themes explored in the interviews, with a particular focus on exploring perceived barriers to and opportunities for better managing service users with multiple care needs, as well as examples of good practices, again as perceived by interview participants.

5.1.2 Findings

This section reports on the findings according to six of the seven scenarios of need described above. Each scenario is further illustrated by a set of flowcharts, which are shown in Appendix B. We illustrate findings with quotes from individual interview participants which we signpost in italics below. It is important to note that the quotes reflect the views and perceptions of the interviewed person only; they do not reflect the views of the authors of this report. Where a particular professional group is presented by one key informant only, we do not document reported perceptions specifically (Table 1). This was also the case for scenario 7. However, we took account of relevant experiences in the wider interpretation of observations.

Table 1

Number of respondents by provider or stakeholder group

Provider or stakeholder group	Ljubljana	North West	North East	TOTAL
Primary care				
Community health centre				
Specialist in family medicine	1	1	1	3
Specialist in family medicine with a concession	–	1	1	2
Nurse practitioner – family medicine model practice	1	1	1	3
Community nurse	1	1	1	3
Sub-total	3	4	4	11
Outpatient specialist clinic				
Internal medicine specialist diabetologist	1	1	1	3
Registered nurse	1	–	–	1
Sub-total	2	1	1	4
Hospital				
Division of internal medicine				
Internal medicine specialist	1	1	1	3
Registered nurse	1	1	1	3
Care continuum and coordination nurse	NA	1	NA	1
Division of traumatology				
Surgeon	1	1	1	3
Registered nurse	1	1	1	3
Care continuum and coordination nurse	NA	1	NA	1
Rehabilitation physician	–	–	1	1
Social worker	–	1	–	1
Nurse-led ward				
Registered nurse	1	1	1	3
Sub-total	5	8	6	19
Nursing home				
Registered nurse	1	1	1	3
Social worker	–	1	–	1
Sub-total	1	2	1	4
Rehabilitation facility				
Rehabilitation physician	0	NA	0	0
Registered nurse	0	NA	1	1
Sub-total	0	0	1	1
TOTAL	11	15	13	39

Note: "0": declined to participate; "–": not approached; "NA": not applicable because such a position or setting does not exist in a particular region

Scenario (i). Stable hypothetical patient with multiple care needs who is managed at the primary care level (see also Appendix B, Figures A.1–A.4)

Barriers to the management of people with multiple care needs: the specialist in family medicine perspective

Interviews with specialists in family medicine (in the following referred to as family physicians) (n=5) revealed a range of perceived barriers in managing patients with

multiple care needs; these centred largely around *time*, *decision support* and *clinical information systems*.

There was a general perception of lack of time to address multiple care needs appropriately. This was attributed to the volume of patients registered with family practices. Family physicians participating in the interviews felt that patient load would prevent their ability to implement clinical guidelines, use information

technology, or provide guidance to patients about self-management of their problems and instructions about medications:

I manage patients routinely using my experience and not using guidelines, checklists or other tools as there is no time for that. I have on average 60 patients per day. I can forget about using information technology. It is too time-consuming, I rather take notes by hand.
(Family physician #2.1)

Information technology was reported to be mainly used for documenting activity for the Health Insurance Institute of Slovenia. It was noted that much of the documentation was in paper form and some of the computer equipment available to practices was perceived to be outdated. Family physicians participating in the interviews further stated that there was no unique IT system at the national level or at the level of community health centres. These factors were seen to contribute to reducing the time they felt they had available to spend with patients:

A computer is in the family physician's office with internet and intranet connections, however, I have no time to use it or enter findings on my patients into the computer. Prescriptions for patients, orders for the community nurse, and referral forms are written by hand. Laboratory requests are also ticked on paper even though they can be ordered via intranet. There is nothing working at present regarding computers and programmes.
(Family physician #2.1)

Patient health records tended to be paper-based and this was seen to hinder swift data retrieval, in particular in emergency situations:

Health records are arranged alphabetically by family names and it is impossible to retrieve [the information on] a population of patients with a certain chronic disease or combination thereof. [. . .] Health records are kept in each physician's office and it is impossible to get hold of them during emergency visits out of office hours, which constitutes a risk of errors. (Family physician #2.2)

Family physician model practices were seen to provide some advantage in that the nurse practitioner would maintain an electronic record of patients with chronic health problems. However, this record is not linked to the overall patient file, which again was seen to hinder best practice:

A nurse practitioner in [a] model practice prints information on a patient and files [it] into the patient record for me to check. It would be much better to arrange this electronically. Inaccessible records during duty hours may compromise safety and outcomes. (Family physician #2.1)

Family physicians participating in the key informant interviews further commented on their limited ability to draw on decision-support mechanisms such as clinical

guidelines, clinical pathway protocols, checklists or a scientific literature database. There was a perception that while guidelines, protocols and checklists might be available in principle, these were inadequately integrated along the patient pathway and there was a perceived lack of tools and techniques to help realize evidence-based clinical practice. Yet even where such guidance was available, the main obstacle for applying it in practice was again a perceived lack of time:

I have the national clinical guideline for diabetes but no clinical pathways or checklists; I would like to have more clinical guidelines but this would take more of my time. Lack of these tools may influence efficiency and efficacy in measuring my own practice. For the majority of chronic diseases there are protocols in e-form that are the same as [those used by the] nurse [practitioner] in model practice, but I rarely have enough time to look at these.
(Family physician #2.1)

Barriers to the management of people with multiple care needs: the model practice nurse practitioner perspective

Interviews with nurse practitioners working in family medicine model practices (n=3) identified similar factors as those described by family physicians as the main barriers to best practice, that is: *time* and *clinical information systems*.

There was a perception among nurse practitioners interviewed for this study that the administration required to document activity for the Health Insurance Institute of Slovenia would take up considerable time, and this was seen to come at the expense of time required to put in place existing protocols for each of the chronic diseases they are tasked to oversee. Similar to family physicians, a main concern was that clinical information relevant to addressing a given patient's needs appropriately was still based on paper and this was seen to compromise the effectiveness and efficiency with which they felt they could accomplish their tasks:

I go through electronic protocols and enter all the relevant data for the patient into the computer and then print them to be delivered later in the day to the physician. This is a waste of time and duplication of records.
(Nurse practitioner #2.1)

Information technology was seen to be key to optimizing the care process but similar to family physicians, nurse practitioners interviewed for this study noted that the benefits would only accrue if sufficient time was granted to actually use the system, an issue which was seen to be determined, largely, by patient load:

I believe that information communication technology would decrease some of the burden and increase accuracy of information about a patient. One of the physicians who is not attached to the model practice uses electronic health

records but this doctor has almost four times fewer patients to see each day than doctors who are in [a] model practice. Thus software and hardware is available but I think the main problem for not using it is lack of time.
(Nurse practitioner #2.1)

Barriers to the management of people with multiple care needs: the community nurse perspective

Community nurses interviewed for this study (n=3) also identified *time, decision support* and *clinical information systems* as key factors that they thought would impact on the way they provide services to people with multiple care needs. In addition, issues around *standardization* and *quality* were identified to be of equal concern.

The lack of time was mostly related to a perceived increase in case load for community nurses and, as a consequence, community nurses interviewed for this study felt that this could compromise the quality of their work:

I often rely on unpaid, informal caregivers like family members and neighbours, and volunteers from religious and community organizations, because I have no time for all patients in need in my area. (Community nurse #2.3)

Like the family physicians and nurse practitioners who participated in this study, community nurses highlighted the need for the better use of technology to enhance information flow, with the main concern centring around a perceived lack of protocols or standards for the handover of patients between primary care and community services:

There is no form for medication for individual patients where all medications would be listed. Sometimes the list of medications is prepared by a physician or a nurse practitioner in a model practice, but this is not standard procedure. No standardization regarding my observation of patients exists. If there is deterioration of a patient's diseases, I write a report by hand or contact a physician over the phone. (Community nurse #2.1)

A particular challenge that community nurses believed would impact on their ability to meet the needs for people with multiple complex care needs was the dependence of nurses on physicians' orders in order to become active on a patient's behalf:

The situation is difficult if there are no relatives, neighbours or friends to help because a written request is necessary to contact social services. This must go through a physician, which may cause a delay. (Community nurse #2.1)

A related but separate issue of concern described by community nurses interviewed for this study was the interface between the hospital and community services and the perceived lack of established standards for communication between these levels:

I will not even mention how many people are found dead the same or the next day after discharge especially when discharged on Fridays due to inadequate discharge management, but specialists do never get the feedback what has happened ... I work with the emergency service and I see this all the time. (Community nurse #2.3)

Indeed, in this context those interviewed for this study also raised the issue of a perceived lack of feedback, and measurement of the quality of services more broadly, which they thought would compromise the quality of care patients received:

I or any other do not measure my performance (except the number of patients seen per day) or any other indicators regarding patient management. (Community nurse #2.3)

In summary, professionals working at the primary care level who were interviewed for this study identified a number of barriers that they believed would hinder their ability to provide what they believed to be best practice care for people with multiple care needs. A main concern revolved around a perceived lack of time which they saw to be associated with (an increased) case load, which was felt to compromise their ability to adequately assess patient needs. There was a perception that the systematic use of clinical information systems could greatly enhance the quality and safety of patient care, in particular for those with multiple care needs, and, if set up appropriately, would ultimately also save time. However, there was acknowledgement that setting up the technology will require time, which those interviewed for this study felt was difficult to make. Overall, family medicine model practices were seen to be a promising step in enhancing care for those with multiple needs as they would allow for a more systematic multi-disciplinary team approach to patient care.

Scenario (ii). Hypothetical patient with multiple care needs who has been referred to a specialist outpatient diabetology clinic because of the deterioration of her diabetes, arterial hypertension and COPD (see also Appendix B, Figure A.5)

Barriers to the management of people with multiple care needs: the specialist at secondary level outpatient clinic perspective

Similar to specialists in family medicine working at the primary level, specialist physicians working in secondary level outpatient clinics (n=3) identified issues around *time, decision support* and *clinical information systems* as impacting on their scope of practice. In addition, they also highlighted *coordination of care* as a key factor that would impact on their ability to provide best practice care to people with multiple care needs.

The concern about care coordination (or lack thereof) was seen to be closely linked to information systems, and the inability, at present, to easily access standardized patient documentation provided by the primary care physician:

There is too little data on the referral from the majority of family physicians and this depends on the individual family physician how much data is provided; even if all required elements in the referral form are filled out, necessary information is still missing.

(Specialist outpatient physician #2.3)

Similar to professionals working at the primary care level, specialist outpatient physicians interviewed for this study highlighted the need for an information system that would facilitate the exchange of information between levels:

I often do not get documentation from primary care and visits to other specialists or previous hospitalizations. If a patient has been under the care of our outpatient clinic or hospital from the outset then I can find the documentation in our computer system.

(Specialist outpatient physician #2.1)

Similar to community nurses, specialists also noted that the information flow needed to be both ways in order to optimize patient care:

The letter with results of the examination is not standardized. I dictate the findings of the examination directly to a clerk who enters it into the computer and [it] is then printed; one copy goes to the outpatient health record and one directly to the patient; a letter with the results of the examination should be sent also to the family physician. (Specialist outpatient physician #2.2)

It was highlighted that this lack of information exchange or communication across levels would likely compromise the quality of patient care:

Problems arise when a patient has multiple chronic diseases and is seen by several specialists; each one of them writes his/her own medication and nobody coordinates all these medications.

(Specialist outpatient physician #2.1)

Barriers to the management of people with multiple care needs: the family physician perspective of coordination with specialists at secondary level outpatient clinic

The concerns expressed by specialists interviewed for this study were echoed by specialists in family medicine, who emphasized the challenges created by a perceived lack of *standardized procedures* in the communication between the primary care and specialist outpatient care levels. This issue was raised among practitioners in all three regions considered in this study:

I often miss the needed information because the letters from the specialists are not given to me by patients because they often think that this information is for them only. We waste time and resources to copy [these] letters if they are eventually given to me. (Family physician #2.1)

However, a particular challenge noted by family physicians interviewed for this study as it relates to the primary–secondary care interface was that of administrative as well as professional issues associated with the care of people with multiple care needs in particular. For example, family physicians stated that it was necessary for these patients, because of the nature of their conditions, to be referred to different specialists but that existing reimbursement rules set by the Health Insurance Institute of Slovenia could compromise the appropriateness of referrals:

I have many times difficulties regarding the option of choosing the right referral time as only three options on referral forms are available to choose – urgent (patient has to be seen within 24 hours), quick (patient has to be seen in three months' time), or regular (patient can be seen after three months). However, in practice, some patients need to be seen in a week's time. (Family physician #2.1)

A further challenge facing those caring for people with multiple care needs appears to be that of professional differences in the views of what constitutes “best practice”:

It is almost always necessary to refer a patient with multiple chronic problems to several subspecialists and then it is extremely difficult to manage all medications; pharmacists can be of help in such situations, but it is almost impossible to argue with specialists about the changes made, especially concerning the drugs he/she has prescribed. (Family physician #2.2)

In summary, secondary care specialists and specialists in family medicine who were interviewed for this study equally highlighted the need for better coordination at the primary–secondary care interface in order to enhance the care for people with multiple conditions in particular. Both groups specifically pointed to the need to develop standardized procedures to ensure prompt and accurate exchange of patient information, and in this context study participants mentioned, as an example of good practice, the experience of the Institute of Oncology in Ljubljana, which routinely shares the results from patient consultations with specialists with the patient's family physician.

Scenario (iii). Hypothetical patient with multiple care needs who, following referral to a specialist outpatient clinic, has been admitted to hospital because of her unstable conditions (see also Appendix B, Figure A.6)

Barriers to the management of people with multiple care needs: the hospital specialist perspective

Hospital specialists (n=3), who would encounter the hypothetical patient upon her admission because of her unstable conditions, described *clinical information flow* and *care coordination* as the main factors that were perceived to impact on providing best practice care to people with multiple care needs.

Similar to the observations made by specialists in outpatient clinics and by family physicians, hospital specialists interviewed for this study highlighted the lack of standardized procedures for patient handover as their main cause for concern. For example, as in the outpatient setting, discharge summaries are given to the patient only and these are typically not forwarded to the referral physician. Furthermore, the level of detail of information provided in discharge or referral letters was seen to be variable. As a consequence, the specialist in hospital would often receive information about the patient which was seen to be insufficient to inform decision-making:

In the discharge letter there is usually no mention [of] which medications were introduced and which were discontinued. It is also difficult for patients/families to understand what is written in the letter and even after explanation they rarely retain what was said. There is also no appropriate space for confidential explanations ... If the patient is admitted through the emergency department, there is usually no information from [the] patient's family physician. (Hospital specialist #2.2)

This perception was almost entirely mirrored by the comment of one family physician interviewed for this study when asked about their perception of the primary care–hospital interface:

Photocopies of previous outpatient visits or hospitalizations and relevant tests are given to the patient to take with him/her, however there is no standardization for information to be transferred to secondary care, therefore, relevant information is frequently missing. If a patient is admitted to hospital through an outpatient specialist clinic or through an emergency department I am not informed, except if the patient's family communicates with me or if there is a call from the hospital to get additional information about the patient. (Family physician #2.1)

Hospital specialists interviewed for this study saw linked clinical information systems to be core to ensure better coordination within and across levels. Some hospitals were reported to already have established linked electronic communication systems that would enable

retrieval of patient data across different departments, but this does not appear to be the case across all hospitals in Slovenia. Importantly, linkage with relevant information systems in primary care was reported to be lacking entirely and this was seen to hinder better coordination of care along the patient journey:

Within hospital an electronic programme is used to easily retrieve [information on] patients who were seen in any hospital outpatient clinic or were hospitalized in any hospital ward, but there is no connection with primary care level or any other settings. (Hospital specialist #2.1)

Our systems inside hospital do not talk to each other and also externally there is no connection with other health facilities. (Hospital specialist #2.2)

Barriers to the management of people with multiple care needs: the hospital-based registered nurse perspective

Registered nurses working in hospital who were interviewed for this study (n=3) described a number of factors that they felt would impact on their ability to provide best practice care to people with multiple care needs in particular. Similar to those identified by specialist physicians working in hospital, these included *time* and *clinical information systems*, but also issues of *capacity* and *motivation* among nursing staff.

Concerns about time constraints and sub-optimal communication of clinical information between hospital departments and across the primary–secondary care interface very much mirrored those expressed by other health professionals interviewed for this study. At the same time, hospital-based registered nurses interviewed for this study specifically highlighted important issues around the actual capacity available to appropriately address the needs of more complex patients. This lack of capacity was seen to be rooted, mainly, in perceived shortcomings in the way processes are being organized and overseen at the hospital level, such as bed capacity:

[When] a patient is admitted through the internal medicine emergency department, there [will be] almost always several hours waiting time for a free hospital bed. The demand for free beds is 30–40 each day. (Hospital-based registered nurse #2.2)

Concern was also expressed about the actual capacity of nursing staff to provide for adequate patient support and education, which was seen to be of particular importance for those with (multiple) chronic conditions. These restrictions on capacity were seen to be attributable, in part, to a lack of human resources:

There is not enough nursing staff for patient education, which may lead to complications of chronic problems because patients are not knowledgeable on

self-management of their diseases. This can lead to readmissions and expensive clinical tests.
(Hospital-based registered nurse #2.2)

At the same time, there appeared to be a perception among hospital-based registered nurses interviewed for this study that there may be issues around motivation among nurses in terms of developing further existing capacity and capabilities:

[T]he nursing staff is not eager for continuous professional development and training. There is an atmosphere of apathy. (Hospital-based registered nurse #2.3)

It is difficult, on the basis of the small number of interviews carried out with hospital-based registered nurses in the context of this study, to derive conclusions on the working conditions for nurses in hospital more widely. A perceived lack of involvement in developing processes and procedures was mentioned by one registered nurse that might provide some explanation for the observed passivity:

It is of interest that many instructions, standards, or the like are simply published on the intranet without participation in their development by nurses that work on the front line.
(Hospital-based registered nurse #2.3)

It is, however, likely that perceived time pressures and the aforementioned perceived understaffing will impact on motivation:

Time constraints, medication explanation, discharge letter – information to patients/relatives. Everything is done under time pressure.
(Hospital-based registered nurse #2.3)

In summary, hospital-based specialist physicians and registered nurses who were interviewed for this study underlined similar concerns as those expressed by outpatient specialists, specialists in family medicine and nursing staff working in primary care that were seen to compromise their ability to deliver best practice care to people with multiple care needs in particular. At the core were perceived shortcomings in the way the secondary and primary care levels shared information in terms of content, structure and mode of transfer. As noted in the preceding section, both groups pointed to the need to develop standardized procedures to ensure a prompt and accurate exchange of patient information so as to avoid gaps in patient management along the care pathway, while also highlighting the need to provide for adequate documentation and education for patients to support self-management. Nurses further pointed to the need to involve front-line staff in the development of processes and procedures in order to enable buy-in and promote protocol adherence.

Hospital-based specialist physicians and registered nurses highlighted the experience of the North-West region, which introduced the role of a “care continuum

and coordination nurse”, as an example of good practice. This role is tasked with overseeing the patient journey from admission to the hospital, during the hospital stay and post-discharge, and this was perceived to greatly enhance the coordination of care at the hospital–community care interface (see also Section 5.2). One other example of good practice that was mentioned concerned the North East region, which introduced consultations with a clinical pharmacist for patients who use more than eight medications, to enhance the management of drug side effects, drug interaction and polypharmacotherapy more broadly (Box 7).

Box 7

Implementation of a clinical pharmacist consultant in primary care practice in Slovenia

To support the better management of drug side effects, drug interaction and polypharmacotherapy in particular, Pomurje region in the North East of Slovenia introduced pharmacotherapy groups and clinical pharmacist consultants, supported by the Health Insurance Institute of Slovenia. In brief, the clinical pharmacist consultant conducts a weekly afternoon practice in the community health centre for the admission of patients, review of therapies and patient counselling, and a monthly clinic in nursing homes. In addition, every other month pharmacotherapy groups comprising up to 15 physicians and a clinical pharmacist consultant are held to share expertise and experiences with a focus on specific drug groups and polypharmacotherapy study case reports.

Over the period December 2012 to October 2013, a total of 165 clinics were held and 629 patient therapies were reviewed. On average, the clinical pharmacist examined 3.81 therapies per afternoon (average patient age; 69 years; 60% female). The average prescribed medication per patient was 11.18 before and 9.71 after the consultation. In total, the clinical pharmacist recommended cessation of 925 drugs, which equated to one or two drugs per patient. The reviews also identified a total of 1,170 potential clinically significant drug interactions and these were reduced by 90% following review. The most common changes concerned therapies with anti-hypertensive drugs (45%), analgesics (41%), psychiatric agents (37%) and proton pump inhibitors (27%). About 70–85% of the recommendations issued by the clinical pharmacists were taken into account by the prescribing physician. The scheme has since been expanded to include other community health centres in the region.

Source: Premuš Marušič et al., 2015.

Scenario (iv). Hypothetical patient with multiple care needs who suffered a hip fracture and, after being seen by the emergency centre, was admitted to a trauma unit (see also Appendix B, Figures A.7 and A.8)

Barriers to the management of people with multiple care needs: the trauma surgeon and hospital-based registered nurse perspectives

Trauma surgeons (n=3) and traumatology department-based registered nurses (n=3) invited to comment on the hypothetical patient with multiple care needs, who was eventually admitted to a trauma unit because of her hip fracture, identified three core factors to be important in influencing the level of care they felt was required to appropriately meet the needs of this patient, and these echoed those noted by other health professionals reflected upon in the preceding sections: *decision support*, *clinical information flow* and *standardization procedures*, along with *care coordination*, with registered nurses additionally raising the issue of *capacity*.

For example, concerning clinical information flow, the greatest challenge was seen in the lack of standardized procedures both in terms of content and processes, with information flow often being unidirectional rather than shared across those involved in the care of a given patient:

If a patient is transferred from a nursing home, there is written documentation about all the diagnoses and therapies. The largest problem is when a patient is transferred from their home and no information is provided. In such cases the family physician is contacted over the phone or patient's relatives are asked to bring the documentation from the patient's family physician. If there is a pertrohanteric fracture, the operation has to be performed as soon as possible and in this case not all information is available. (Trauma surgeon #2.2)

An important aspect raised by trauma surgeons interviewed for this study that they saw as a barrier towards providing best practice care for people with complex care needs in particular was that of a perceived lack of appropriate decision-support systems:

There are no clinical guidelines, clinical pathways, checklists or standards for the management of this particular patient [...] At present we are constructing a checklist. We would like to follow the principles of orthogeriatrics where a team consisting of a traumatologist, a geriatrist and an anaesthesiologist would take care of such patients, however, in Slovenia there is no specialization for geriatrics. (Trauma surgeon #2.2)

Closely related to the perceived need to introduce protocols and checklists for team working was a suggestion to enhance coordination among hospital staff treating the patient more generally in order to ensure appropriate

and safe care, but this was seen to be compromised, at present, by a lack of suitable staffing and organization of work processes:

For patients with multiple problems, several specialists are consulted, but often they adjust medication by checking the patient's documentation only, without seeing the patient. When the consulted specialist also examines the patient, collaboration is good because the patient's rehabilitation and integration into normal life can be discussed. Often each specialist focuses on only one disease according to his/her specialty. Thus patients often receive medications that interact and cause a lot of side effects. It would be more beneficial for patients to be examined by a general internist. However, only one general internist is assigned to the entire surgery department making it impossible for all patients to be seen. (Trauma surgeon #2.2)

In this context, traumatology department-based registered nurses also raised concerns about the ability to provide appropriate support to patients with multiple care needs, which, so far, has tended to be disease-specific and therefore ill-suited to prepare patients to self-manage their conditions once they are discharged from hospital: “At the entrance to the department there are brochures for patients/families with descriptions of different injuries, rehabilitations, etc.” (Traumatology department-based registered nurse #2.1):

The education about diabetes is good, for other chronic problems education is not well organized. If there are problems a nurse from the internal department is asked to help, but this is not standardized. (Traumatology department-based registered nurse #2.1)

In summary, trauma surgeons and traumatology department-based registered nurses interviewed for this study echoed concerns expressed by other health professionals involved in the care for people with complex care needs, in particular as they relate to information sharing along the care pathway, and the standardization of processes and procedures to ensure prompt and accurate transfer of patient information. Additional concerns related to a perceived lack of suitable guidance and protocols to help better meet the multiple needs of complex older patients. However, although developments are under way to create protocols and checklists according to the principles of orthogeriatric collaboration, which has been found to significantly improve outcomes for older people with hip fracture (Komadina et al., 2012; Grigoryan et al., 2014), there was recognition that implementation of such guidance might be faced with professional resistance: “Some surgeons are explicitly against clinical pathways as they believe that each patient is unique” (Trauma surgeon #2.1).

Scenario (v). Hypothetical patient with multiple care needs who, after suffering a hip fracture and receiving treatment in the hospital trauma unit, is being transferred to a nurse-led ward within hospital (see also Appendix B, Figure A.9)

Barriers to the management of people with multiple care needs: the registered nurse perspective

Registered nurses based in nurse-led hospital wards (n=3) reported on a number of issues that they perceived to impact on the quality of care they felt able to provide to patients with complex care needs. While reflecting several of the points noted by other health professionals interviewed for this study, such as *standardization of procedures* and *clinical information flow*, particular concerns were raised around capacity both in terms of infrastructure and staffing.

Thus, mirroring comments made by other professionals involved in the care process, nurse-led ward-based registered nurses interviewed for this study commented on the lack of standardized procedures, causing problems for their ability to provide good quality care:

Handover is in both a verbal and written manner, but in reality not all information is transferred. Often the transferring nurse says "there is nothing special with this patient". Information such as sleep medication, information on possible restraint, urination and defecation is often missing. The discharge letter from the surgeon is often delayed. (Nurse-led ward-based registered nurse #2.1)

Surgical discharge letters are often not comprehensive, for example, medication instructions are given simply as "medication as before admission" (Nurse-led ward-based registered nurse #2.3)

These challenges were seen to be exacerbated by the lack of integrated information systems which was understood to further undermine the continuity of the care process:

There is some electronic information support but the system is incompatible with systems of other departments. I can therefore not get the exact information about patients, [not even] on what diets they were prior to transfer to our ward. (Nurse-led ward-based registered nurse #2.2)

However, the main challenges that nurse-led ward-based registered nurses reported would compromise their ability to provide patient-focused care for people with complex care needs were related to perceived inadequate ward-infrastructure and staffing:

According to the plan there are not enough beds. We have no reserves, we do not have space [to provide] confidential information to patients, we do not have space for the dying people, there are not enough computers, no lifts, we are

understaffed – there is even less staff than is recommended by health insurance
(Nurse-led ward-based registered nurse #2.3)

In summary, nurse-led ward-based registered nurses interviewed for this study reiterated many of the concerns expressed by other health professionals involved in the care for people with complex care needs. Yet a key challenge faced by this group was seen to lie in inadequate infrastructure and capacity, an issue also commented on by registered nurses in other hospital departments.

Scenario (vi). Hypothetical patient with multiple care needs who, after suffering a hip fracture and receiving treatment in the hospital trauma unit, is being admitted to a nursing home (see also Appendix B, Figure A.9)

Barriers to the management of people with multiple care needs: the registered nurse perspective

Like other health professionals interviewed for this study, nursing home-based registered nurses interviewed for this study (n=3) also highlighted *clinical information flow* between care levels as a key factor seen to impact on care processes. However, as opposed to other study participants, standardization of processes and procedures seemed to be less of a concern for this group, at least as far as internal standards are concerned, which were seen to be of good quality:

We use standard operative procedures for many nursing interventions; data are entered into an electronic program and handovers are also written in an electronic database; medications are entered into the computer and are accessed by a physician and a registered nurse. (Nursing home-based registered nurse #2.1)

However, problems arise at the interface with other providers, with information sharing perceived to be sub-optimal:

I usually receive information on nursing discharge documentation (either by post or through the patient/family). From time to time not all necessary information is included in the nursing discharge documentation, such as risk of falls, and I lose a lot of time [having] to call nurses in the hospital and I cannot get proper information out of hospital regular working hours. (Nursing home-based registered nurse #2.1)

5.1.3 Discussion

Health care professionals working at the different levels of the health system in Slovenia (primary and community care, secondary care and residential care) identified a number of barriers that they thought would hinder their ability to deliver what they believed to be "best practice" care for people with multiple care needs. Before discussing

these observations, it is important to highlight that findings reported here are based on a small convenience sample of health professionals working in different settings in three regions in Slovenia. It is difficult to generalize from these findings to the wider population of health professionals across Slovenia, although the consistency of common observations – such as around information sharing – does appear to point to a more generic challenge faced by care providers in the Slovenian system.

A common concern reported by the majority interviewed was a perceived lack of standardized processes and procedures for the handover of patients between providers and care levels, and shortcomings in the way the different levels shared information in terms of content, structure and mode of transfer. We will return to the issue of standardization in Section 5.2 below, where we discuss discharge planning. There was recognition that better integrated clinical information systems both within and across facilities and institutions would go some way to ensure prompt and accurate exchange of patient information and this would likely avoid gaps in patient management along the care pathway. More integrated information systems were seen to be core to strengthen coordination between care levels, which was believed to be particularly important to enhance the quality and safety of patient care, in particular for those with multiple care needs (Box 8).

A number of health professionals interviewed for this study also highlighted the need for better guidance and protocols to help meet the multiple needs of complex older patients, although there was recognition that implementation of such guidance might be faced with

professional resistance. Existing evidence identified several factors that were found to facilitate the adoption of guidelines in clinical practice. These include strong professional and organizational support, clarity of guidance and relevance to practice, adequate funding and clinician involvement (Sheldon et al., 2004). The latter point was also highlighted by hospital-based registered nurses interviewed for this study, who commented on a perceived lack of involving front-line staff in the development of processes and procedures and, based on the evidence, it appears to be important to consider seeking staff views during guideline development in order to enable buy-in and promote implementation and adherence.

Several examples of good practice were mentioned that were seen to overcome some of the perceived barriers to implementing “best practice” in the delivery of services to people with complex care needs. At the primary care level, this included the introduction of the family medicine model practice, which we have described in detail in earlier sections of this report. The model practice concept was widely regarded to be a promising step in enhancing care for those with multiple needs as it would allow for a more systematic multi-disciplinary team approach to patient care.

One other example of good practice that was mentioned concerned Pomurje region in the North East region, which introduced consultations with a clinical pharmacist for patients who use more than eight medications, to enhance the management of drug side effects, drug interaction and polypharmacotherapy more broadly (Box 7, above).

Box 8

The use of clinical information systems to support care coordination

International evidence has demonstrated that care for people with complex care needs involving multiple professionals who work across interfaces between sectors can only function if there are effective mechanisms to transfer information (Hofmarcher et al., 2007; Leutz, 1999). It is in this context that eHealth strategies have been suggested to be core to effective approaches to managing people with long-term and chronic health and care needs. The European Commission’s eHealth Action Plan 2012–2020 explicitly promotes the use of eHealth technologies for the delivery of more patient-centred care and the management of chronic conditions (European Commission, 2012) and available evidence supports the notion that eHealth strategies can lead to better outcomes at reduced costs where these are implemented effectively (Goodwin & Alonso, 2014). Yet clinical information systems that link different providers remain relatively underdeveloped in most settings. A 2007 survey among countries in the Organisation for Economic Co-operation and Development (OECD) on care coordination showed that only a few countries had put in place policies to enhance information collection and transfer (Hofmarcher et al., 2007). More recently, Nolte et al. (2014) demonstrated that among the approaches implemented in European countries

to enhance the coordination of care for people with chronic conditions, the use of clinical information systems tended to be the least developed strategy in most settings.

A number of countries have and are investing considerable resources in the development of electronic health records, including Austria, Australia, Denmark, Estonia, Germany, several provinces in Canada, the Netherlands and the USA, among others (Adler-Milstein et al., 2014; Goodwin & Alonso, 2014; Nolte et al., 2014). However, progress has been slow, and in some instances, such as in Austria and Germany, initiatives have met with substantial debate by providers because of concerns about privacy or the costs involved. But even where issues about data security have been addressed, uptake may be low, in particular where the system remains complementary. For example, in Australia the personally controlled electronic health record (PCEHR) was introduced as an opt-in record in 2012, but a recent survey of health care providers and service users found that they had relatively low awareness and knowledge about the PCEHR. And while some 62% of respondents believed that health care providers with access to the PCEHR would be able to provide better quality of care, only half of respondents would sign up to have a personalized record (Lehnbom et al., 2014). This points to a need for continued efforts and investment to ensure that better access to information and new technology tools become a routine part of how health care providers and patients engage in managing health (Adler-Milstein et al., 2014).

At the secondary care level, the introduction of the role of “care continuum and coordination nurse” was believed to provide an important function not only in coordinating a given patient’s discharge from hospital but more broadly as a case manager taking on wider responsibilities in the coordination of different services to address a patient’s needs (Kramar et al., 2005). Care continuum and coordination nurses have so far been introduced in the North-West region only. Other examples of good practice include the experience of the Institute of Oncology in Ljubljana, which routinely shares the results from patient consultations with specialists with the patient’s family physician, and the creation of protocols and checklists according to the principles of orthogeriatric collaboration in Ljubljana, which has been found to significantly improve outcomes for older people with hip fracture (Komadina et al., 2012; Grigoryan et al., 2014).

5.2 Processes and procedures for discharge planning

Discharge planning is typically described as the development of an individualized plan for a patient to ensure that they leave hospital at an appropriate time and that, with adequate notice, the provision of other necessary services post-discharge will be organized (Shepperd et al., 2013). The aims of discharge planning are to improve “the efficiency and quality of healthcare delivery by reducing delayed discharge from hospital, facilitating the transition of patients from a hospital to a post-discharge setting, providing patients with information about their condition and, if required, post-discharge healthcare” (Shepperd et al., 2013: 5). Discharge planning may control costs and improve patient outcomes through, for example, influencing the length of hospital stay and the pattern of care within the community by bridging the gap between hospital and home.

In Slovenia, since 2014 hospitals are required to document arrangements for discharge management and liaison with primary and long-term care as part of the hospital accreditation process (Det Norske Veritas AS, 2011). However, the degree to which documented discharge planning arrangements have been implemented in practice remains unclear and anecdotal evidence suggests that hospital discharge and the transition process from hospital to alternative settings (the patient’s own home, nursing home, long-term care facility) in Slovenia is not standardized and is frequently poor in quality. There are concerns that this lack of standardization may result in unduly delayed discharge and adverse events such as (emergency) readmissions, loss of independence (especially among older people) and contraction of hospital-borne infections (again especially among older

people who tend to be more vulnerable) (Bryan, 2010), because arrangements for continuing care have not been put in place in time (or not put in place at all).

This section seeks to begin to provide insights into processes and procedures for discharge planning implemented by hospitals, with a focus on people with multiple care needs, by means of a survey of a range of stakeholders in three regions in Slovenia: Ljubljana, the North West and the North East.

5.2.1 Methodological approach

Data collection used a series of structured questionnaires, which were newly developed and informed by international studies of discharge (Burns & Nichols, 1991; Forster et al., 2003; Moore et al., 2003; Pirmohamed et al., 2004). Questionnaires were designed to reflect the specific contexts of the range of stakeholders involved in or affected by discharge planning processes and procedures in Slovenia, and questionnaires differed in length and complexity as a result. The questionnaires used a combination of open and closed questions, with the latter permitting three generic responses: yes, no and partially. For illustration, Appendix C provides an example of the questionnaire developed for hospital staff.

As noted, the surveys targeted different stakeholder or provider groups in three regions in Slovenia: Ljubljana, the North West and the North East. Stakeholders targeted were: different staff working in hospital; different staff working in community health centres (community nurses, family physicians and nurses working in family medicine model practices); nurses in long-term care institutions or retirement homes, and patient representatives (through a national NGO umbrella organization: the Coronary Society of Gorenjska and Network NGO 25x25).

Table 2 provides an overview of the range of institutions targeted by the surveys, by region.

Table 2

Provider or stakeholder groups included in the survey

Provider or stakeholder group	Ljubljana	North West	North East
Hospital	X	x	x
Community health centre	X	x	x
Nursing home	X	x	
University-affiliated rehabilitation centre	X		
NGO umbrella organization	X	x	

Questionnaires were distributed via email or in person to the lead manager in each institution, who was then asked to distribute it further.

Participation in the survey was voluntary and the respondents were not identifiable. Data collection was undertaken during May and June 2015. The data were analysed by means of simple descriptive analysis.

5.2.2 Findings

Table 3 (p. 37) provides an overview of respondents by major job category, provider and stakeholder group across the three regions. A total of 62 questionnaires were returned. Because the survey was distributed by individual institutions or groups, it was not known to us how many potential respondents received a questionnaire through this route and it was therefore not possible to determine an exact response rate.

The number of responses varied by provider or stakeholder group and across regions, with the majority of responses received from staff in hospitals and community health centres, mostly medical staff. The second largest group of respondents were patients' representatives, as identified through the NGO umbrella organization. Nursing home staff were less well represented and we did not receive responses from staff working in rehabilitation.

The following sections report in turn on the various stakeholder and provider groups, starting with patient representatives. We then report on the hospital perspective, followed by the perspective of different staff working in community health centres. We conclude with observations from nursing staff in nursing facilities.

Processes and procedures for discharge planning: the patients' representatives' perspective

A total of 15 patient representatives (seven men and eight women) from NGOs in two regions responded to the survey, ten of whom reported to have multiple chronic conditions. Respondents' ages ranged from 34 years to 77 years, with an average of 58.5 years. All respondents had experience of at least one hospitalization, although the time since the last hospital admission ranged from 4 days (n=1) to two years and more (n=9) (average: 3.9 years). Ten patients reported taking four or more medications on a daily basis.

Table 4 (p. 38) provides a summary overview of patients' representatives' responses about their last hospital stay and their experience of the discharge process in particular. The majority of patients noted that, on the last hospital stay, they had received information about their medical condition and treatment during and after discharge from hospital, as well as about the medication regime (what to take and how to take it). Patients also reported having been given an opportunity to ask questions before discharge and discharge papers, including written instructions about what to do following discharge. However, only a minority reported having received information about possible side effects of the

medicines they were taking or being given a written list of medicines. Respondents were equivocal about whether or not they or their relatives had been given instructions about how to carry out simple procedures such as giving an injection.

Respondents were also invited to add written comments on their hospitalization and discharge experience, but only one respondent chose to do so:

Actually, before discharge the physician did not even come to see, to examine and talk to me. I had to wait for the discharge papers outside his office. Discharge papers were then written by another physician who did not operate [on] me [and who] suggested rehabilitation in discharge papers. He did not write any instructions for my recovery, how to and for how long should I use crutches, how can I use stairs, etc. I have received all the information from my physiotherapist whom I visited for another five weeks.

It is difficult to generalize from this single response to the wider experience of respondents who may have chosen not to leave comments because their experience was perceived to be satisfactory. This conclusion would be supported by the overall responses to the survey as shown in Table 4, suggesting that patients were generally satisfied with the processes involved around discharge from hospital following their last hospital stay.

However, in interpreting these data it is important to note that for the majority of patients, their last hospital stay dated back at least two years, as mentioned earlier. Available evidence suggests that long reference periods are associated with reporting errors and errors of omission and it may be the case that the length of time that has passed since the last hospitalization may have influenced their recollection of events. However, there were no noticeable differences in the responding patterns between those whose hospitalization dated back some time and those who reported a more recent hospitalization episode. More importantly perhaps, patients responding to this survey are likely to represent a (self-) selected sample of more active patients, given their membership in an NGO network of organizations seeking to work together to improve health in Slovenia, and they may therefore not necessarily reflect the experiences of the average older patient with multiple care needs.

Processes and procedures for discharge planning: the perspective of hospital staff

A total of 22 hospital staff from three hospitals in three regions responded to the survey. These included 13 doctors, of whom six occupied senior (management) positions, and eight nurses (seven in senior positions). Table 5 provides a summary overview of hospital staff responses about discharge policies in place in their hospital or department (p. 39).

Table 3

Number of respondents by provider or stakeholder group, by region

Provider or stakeholder group	Ljubljana	North West	North East	TOTAL
Hospital				
Senior staff (management)			1	1
Senior staff (medical)	1	3	2	6
Senior staff (nursing)	3	3	1	7
Specialist physician (surgery, internal medicine)	5	1	1	7
Specialized nurse (care coordination)		1		1
Sub-total	9	8	5	
Community health centre				
Specialist physician in family medicine	6	2	2	10
Nurse practitioner (family medicine model practice)		1		1
Community nurse	5	1		6
Sub-total	11	4	2	
Nursing home				
Senior staff (nursing)	3	2	1	6
Other staff		1	1	2
Sub-total	3	3	2	
University-affiliated rehabilitation centre				
Senior staff (medical)				-
Senior staff (nursing)				-
Sub-total	-	-	-	-
Patients' association/s				
Patients' representative	11	4		15
Sub-total	11	4	-	
TOTAL	38	15	9	62

Note: "0": declined to participate; "-": not approached; "NA": not applicable because such a position or setting does not exist in a particular region

Describing the general process of discharge planning, the majority of respondents noted that their hospital (or hospital department) would generally have written instructions for patient discharge in place and that discharge planning would usually begin between 24 and 48 hours following admission of the patient to the hospital. Discharge planning was, however, described as challenging for patients receiving palliative care and older patients who were considered unable to care for themselves.

According to respondents, only one of the three hospitals used a form to assist with the discharge planning process, and one other hospital (located in the North-West region) used a discharge planning coordinator (a "care continuum and coordination nurse"). Elsewhere, discharge planning was reported to be overseen by the attending physician or nurse; the attending physician or nurse would also be in charge of communicating with the patient and their relatives about the planning process, while instructions to the patient about self-management

after discharge to their home would typically be the responsibility of the attending nurse (or care continuum and coordination nurse).

Respondents also reported that the patient or their family would usually be given the discharge papers directly, along with written information such as brochures for self-management. However, it was noted that discharge papers would not normally be forwarded to the patient's family physician; occasionally the family physician would be provided with a copy of the discharge papers. Thus, it would typically be left to the patient to share the discharge papers with their family physician.

Similarly, there appeared to be no generalized procedure that would ensure that the community nurse received the discharge papers, where relevant. Passing on the discharge papers to the community nurse was normally up to the patient, although the community nurse might receive a telephone call from the hospital (more specifically, from the attending physician or nurse). An exception is the aforementioned hospital that uses a special care continuum and coordination nurse; here,

Table 4

Summary overview of patient representatives' responses about their last hospital stay and discharge procedures

No.	Question	Number of responses		
		Yes	Partially	No
1.	Have your medical conditions been explained to you upon your arrival in hospital?	8	2	1
2.	Have you been asked about your wishes concerning your medical condition when a discharge was planned?	8	2	3
3.	Have options for further medical treatment been explained to you?	9	3	2
4.	Have you been asked about your wishes for further medical treatment when discharge was planned?	7	4	3
5.	Was the further medical treatment after discharge explained to you in an understandable way?	7	3	
6.	Has it been explained to you when you can expect your next appointment with your family physician?	10	2	2
7.	Has it been explained to you which medication you have to take regularly?	11	1	2
8.	Has it been explained to you how to take the medication?	12	2	1
9.	Have any medication side effects been explained to you?	2	3	8
10.	Have you been provided with a list of medications?	6		9
11.	Has it been explained to you which medication you should not take any more when you were admitted to hospital (if you took any)?	9		2
12.	Have you received instructions about a special diet you should follow (if necessary)?	3		2
13.	Have you received information on whether you will need any medical device/aid (if any)?	1	2	1
14.	Have you been asked if you can perform the following tasks by yourself: • Bath, dress, use a toilet, use stairs? • Cook, go shopping, clean your apartment, pay bills, etc.? • Go to your GP, go to a pharmacy?	8		4
15.	Have you and/or your relatives been instructed how to carry out simple medical procedures (give an injection, apply a bandage, etc.)?	6	2	5
16.	Have you been given instructions about what you can do to improve your health?	9	5	1
17.	Have you been contacted by a social worker in hospital and been given instructions on where you can find social support (if necessary)?			3
18.	Have you been given the opportunity to ask any questions before discharge from hospital?	10	2	2
19.	Have you received discharge papers and written instructions on what to do following hospital discharge?	10	4	1

the care continuum and coordination nurse arranges for the nursing care discharge papers and passes these on to the family physician, the community nurse, the nursing home or the nurse practitioner in the family medicine model practice. However, whatever the route by which the discharge papers are reaching the family physician or community nurse, it is important to note that, according to survey respondents, discharge papers were not standardized and the content and level of detail about the patient's condition and treatment may vary widely (see also Table 5).

Arrangements for transfers of patients who cannot return home and need to be referred to a nursing home are normally overseen by the patient and their family,

although they might receive support from a social worker. However, the transfer may be challenging where there is insufficient capacity in terms of nursing beds. There were differing views on the extent to which the process of discharge planning was regularly evaluated to ensure the provision of coordinated and continuous care, with the majority of respondents noting that this was partially the case.

The hospital staff survey employed in this study contained a set of questions specifically targeted at selected staff, including nurses and physicians responsible for or overseeing the discharge of a given patient, and which provided further insights into discharge planning from specific professional perspectives (see Appendix C for the

Table 5

Summary overview of hospital staff responses about discharge policies in place in their hospital or department

Question	Yes	No	Partially
1. Hospital has written instructions for patient discharge in place	10	1	5
2. All patients are assessed for the risk of complications, which can occur after discharge	6	3	6
3. Patients' needs after discharge are evaluated	13		3
4. Discharge planning commences on admission	12		4
5. Hospital has a person responsible for discharge planning	9		6
6. Hospital staff conclude the evaluation of patients' needs after discharge in time, and avoid any unnecessary delay of discharge	9	1	6
7. Hospital discusses the patients' needs with the patient and their relatives	11	2	2
8. Nurse, social worker and other competent staff oversee the discharge process	11	2	3
9. The patient and their relatives receive health education throughout the length of hospitalization and not only at discharge	11	2	3
10. Hospital discharges or transfers provide patients with all the necessary information to ensure continuous health and social care	11		5
11. Hospital regularly evaluates the process of discharge planning, so it can fulfil the coordinated and continuous care of patients	5	2	9
12. Discharge papers are prepared before discharge and updated at the time of discharge	5	4	7
13. Every discharge has a written plan which includes all medication and procedures, diet, healthy life adjustments, continuous health and social services, health education, improvement of health literacy and instructions in case of complications	4	3	9
14. The patient receives a copy of discharge papers	16		
15. The patient's family physician and other relevant service providers (nurse, community nurse, retirement home, etc.) receive a copy of discharge papers within 48 hours following discharge	5	7	4
16. The discharge processes are evaluated and continuously improved	6	3	6

full questionnaire). For example, among the nurses who responded to the subset of questions directed at nurses specifically (seven out of the eight nurse respondents to the overall hospital survey), only four out of seven felt they had full control over discharge planning, although the majority of respondents said they were coordinating all activities along the process (Table 6, p. 40). The majority of nurse respondents also stated that they would discuss the discharge planning process with the patient and their relatives, and that they tried to ensure that patients (and their relatives) understood what they had to do following discharge. However, while the majority of nurses said they would also get in touch with the community nurse where necessary, only one nurse noted that s/he would follow-up with a telephone call after discharge to check on the patient.

Of the twelve physicians who responded to the subset of questions directed at hospital physicians who are involved in direct patient care specifically, the majority stated that they would lead and collaborate on rounds for discharge planning, suggest a possible date for discharge, communicate with the team about medical treatment after discharge and prepare the discharge papers (Table 7, p. 40). However, only about half of the respondents said

that they would prepare a plan for medical treatment based on a clinical pathway, while six physicians said that they would do this partially. It remains to be explored whether this means that these doctors only prepare a plan for medical treatment but do not take account of a clinical pathway. It is noteworthy that only three out of twelve physicians noted that they would communicate with the patient and their family physician.

In summary, the survey of views of hospital staff about processes and procedures for discharge planning in Slovenia seems to suggest that the three hospitals or hospital departments that were included in the survey generally have written instructions for patient discharge in place and that discharge planning would usually begin between 24 and 48 hours following admission of the patient to the hospital. However, the use of standardized forms or dedicated care coordinators overseeing discharge appeared to be the exception. Discharge papers do not generally follow a standardized format and the content and level of detail about the patient's condition and treatment may therefore vary widely. There appeared to be no processes in place that would allow for the routine sharing of discharge papers with a patient's family physician or the community nurse, where required.

Table 6

Summary overview of responses from nurses overseeing discharge planning

Question	Yes	No	Partially
17. Control over discharge planning	4	1	2
18. Coordination of all activities related to discharge planning	6		1
30. Influence on team activities and discharge planning	3	1	3
31. Collects data required for discharge	6		1
32. Ensures realization of discharge planning and that the patient understands what to do after discharge	5		2
33. Discusses discharge planning with a patient and relatives	6		1
34. Ensures that a patient and relatives understand what to do after discharge	7		
35. Phones patient 2–3 days after discharge	1	4	1
36. Phones community nurse where required by patient	7		

Table 7

Summary overview of responses from hospital physicians involved in direct patient care

Question	Yes	No	Partially
37. Begins preparing a plan for medical treatment based on a clinical pathway	5	1	6
38. Leads and cooperates on rounds for discharge planning	10	1	1
39. Proposes a possible discharge date	11		1
40. Communicates with a team about medical treatment after discharge	9	2	1
41. Prepares the discharge papers	12		
42. Communicates with the patient and the patient's family physician	3		9

With the possible exception of the hospital in the North West, which employs a dedicated care continuum and coordination nurse who is responsible for discharge planning and post-discharge support, hospitals do not appear to have systematic strategies for post-discharge support in place. Clearly, survey responses reported in this section represent three hospitals in Slovenia only and it is difficult to generalize from these findings regarding discharge planning procedures and processes implemented by hospitals in other parts of the country.

Processes and procedures for discharge planning: the perspective of specialist physicians in family medicine

A total of ten specialists in family medicine from three community health centres in the three survey regions in Slovenia returned the questionnaire. Mirroring the hospital survey responses described in the preceding section, family physicians confirmed that they were rarely notified by the hospital when a patient under their care had been hospitalized. They also confirmed that they would not normally receive discharge papers unless the patient concerned shares it with them. However, survey respondents did highlight two exceptions, the Institute of Oncology and Golnik hospital, which would routinely provide the patient with a copy of the discharge papers to

pass on to their family physician. Where discharge papers are incomplete or missing, the physician would typically phone the hospital to follow up.

Building on the experience with discharge planning in particular, the survey of specialist physicians in family medicine further explored how family doctors coordinate the management of their (complex) patients with specialist outpatient clinics and hospitals more broadly. In this context, respondents noted that there were generally no systematic strategies such as care plans or clinical pathways in place that would connect the primary care level with the secondary care level. They mentioned the existence of national guidelines for selected chronic diseases but they did not elaborate further on the extent to which they felt that the guidance would facilitate the coordination between care levels. There was also mention of some community health centres that had developed specific integrated care pathways, which were coordinated with the secondary care level. It was not clear from the responses given whether the use of integrated care pathways was a frequent occurrence among community health centres across Slovenia. A small number of family physicians reported that when they referred a patient to the secondary care level they would try to put as much information as possible about the patient on the back of the referral letter to enable information-sharing with the outpatient clinic. There was also mention of a small

number of clinics or hospitals which had devised specific criteria for the examinations and tests a given patient should have had completed prior to referral.

When asked about patients with multiple health problems, responses given by family physicians indicated that the system tended to be quite fragmented, although they did not explicitly state that this was the case. For example, it was reported that they would typically refer such patients to the outpatient specialist clinic for each condition separately, and that specialist clinics would normally refer the patient directly on without sending them back to the family doctor. There appeared to be little systematic communication between the secondary level and the family physician, and survey respondents noted that they were typically contacted (by phone or email) in the case of an emergency only.

Against this background it is perhaps not surprising that among the core suggestions for improving coordination between the different care levels proposed by family physicians responding to the survey was the introduction of a uniform information system that would permit more seamless communication between facilities. There was also support for the systematic development of clinical pathways to strengthen cooperation.

Processes and procedures for discharge planning: the perspective of community nurses

A total of six community nurses from two community health centres in two of the three survey regions in Slovenia returned the questionnaire. Community nurse respondents confirmed that, like family physicians, they (or, more precisely, the community health centre they work with) would rarely receive discharge papers directly from the hospital but that they had to rely on patients to share the papers with them. However, respondents also noted that the hospital would usually contact the community nurse to obtain further information of relevance for the treatment of a given patient, especially before patient discharge if there are any special procedures that need to be carried out. Also, the hospital nurse in charge of the patient would typically inform the community nurse when the patient has been discharged, although on occasion it might be the patient who informs the community nurse.

When asked to reflect about perceived challenges posed by current discharge processes, community nurse responses pointed indirectly to the issue of fragmentation which would cause disruptions to care continuity. For example, respondents stated that they would face administrative problems when a patient was discharged on a Friday, prior to the weekend, when it would be difficult to get hold of the treating family physician in time for issuing a work order, prescriptions or other instructions to ensure continuity of care. They also noted that discharge papers would typically be delayed (as they are frequently sent by post), which would further disrupt

care continuity, in particular where discharge papers were incomplete. In the latter case, the community nurse would have to contact the treating family physician or the hospital to follow up on the missing information. Conversely, nursing discharge papers, where issued (and received by the community nurse), were seen to provide a good guide for continuing care of the patient concerned.

Respondents cited the North West region, which uses a care continuum and coordination nurse as described earlier, as an example of good practice. The care continuum and coordination nurse would inform community nurses about the discharge of a given patient under their care, and the care continuum and coordination nurse would also transfer all relevant information about the patient's hospital stay and medical treatment to the community nurse. Community nurse respondents suggested standardization of procedures and forms, the development of clinical pathways and strengthening of electronic communication as means to ensure more seamless communication between facilities and sectors.

Processes and procedures for discharge planning: the perspective of nursing home staff

A total of six nursing staff from three nursing homes in the three survey regions in Slovenia returned the questionnaire. In contrast to community nurses, nursing staff in nursing homes stated that they would routinely be notified by the relevant hospital about the discharge of a patient under their care. They further noted that they would typically receive temporary discharge papers on the day of discharge, although these were at times incomplete or hard to read (an issue also raised by community nurses, data not shown). The final discharge papers would normally arrive with the patient on the day of discharge but only if the patient was given it directly by the hospital. If sent by post, there could be delays of up to seven days before the nursing homes receive the discharge papers. Final discharge papers tended to be more complete than temporary discharge papers, but nurses highlighted that the documentation they required to ensure continuing care (nursing discharge papers) would frequently be missing. Where information is missing, nursing home staff would need to follow up with the hospital nurse in charge of the patient and this would normally be done by phone.

When asked to reflect about perceived challenges posed by current discharge processes, nursing home staff did not identify any specific issues in addition to those already mentioned. They did point to encountering some problems at times; for example, when a patient is discharged in the afternoon, they might have difficulty in acquiring some specific drugs. Similar to family physicians, nursing home respondents highlighted the need for a uniform information system that would ensure

the timely transmission of information about a given patient's discharge and so ensure continuing care for the patient upon arrival at the home.

5.2.3 Discussion

This section sought to provide insights into the processes and procedures for discharge planning implemented by hospitals in Slovenia, with a focus on people with multiple care needs. It did so by means of a survey of a range of stakeholders in three regions.

The survey captured a total of 62 stakeholders in five settings across three regions. The number of respondents varied across stakeholder groups and regions. The survey instrument relied, to a great extent, on closed questions, which may have unduly restricted the detail of information collected. For example, the statement "Hospital has written instructions for patient discharge in place" might be answered with a "Yes" because the hospital has indeed such instructions, but this does not necessarily mean that the instructions are actually used. However, the survey was designed as an exploratory study, and the method had to accommodate the time constraints within which data could feasibly be collected. A more comprehensive survey or in-depth interviews would have provided more insights but this would have been difficult to accomplish across the multitude of providers and institutions across the three regions within the timeframe available. Overall, it is difficult to generalize about the findings from the survey across Slovenia given the small sample size and method of data collection. At the same time, the survey can still provide useful insights that can help inform policy options to strengthen the hospital–community services interface in the Slovenian health system.

In the introduction to this section we highlighted that there was anecdotal evidence to suggest that hospital discharge and the transition process from hospital to alternative settings in Slovenia is not standardized and frequently poor in quality and this view is confirmed by the stakeholder survey conducted in the context of this study. Thus, a key issue mentioned across all stakeholder groups that responded to the survey was the lack of standardization of discharge papers, which was seen to pose considerable challenges in ensuring continuing care, especially for vulnerable people being discharged from hospital. A number of organizations in Slovenia have sought to improve the discharge documentation (see, for example, Box 9), but this has occurred, mainly, on the initiative of individual providers or health care professionals within organizations and a unified approach that would ensure the transfer of detailed and accurate discharge information is yet to be implemented. Indeed, instructions for discharge procedures were formally issued in 2004, following an adverse event that had occurred in a nursing home at that time (Ministry of Health and Ministry of Labour, Family, Social Affairs and

Equal Opportunities of the Republic of Slovenia, 2004). However, this instruction is also yet to be implemented, highlighting the need to raise awareness about existing guidance and reinforce implementation.

Box 9

Discharge planning at the Centre for Geriatric Medicine, University Medical Centre (UMC), Ljubljana

At the internal clinic at the Centre for Geriatric Medicine at the UMC, discharge planning generally commences within four hours of patient admission to the ward (during working days; currently this process does not operate during holidays or weekends – in this case it is provided on the next working day). The process is led by a nurse who interviews the patient or their carer to understand the circumstances that have led to the admission, the receipt of services and conditions of the home environment. The nurse and the attending doctor then see the patient together to undertake a geriatric assessment, an evaluation of mobility problems and other aspects; the assessment usually involves a clinical pharmacist to undertake a review of the medications the patient is taking. At this point, the discharge process is already being initiated, involving a structured discharge letter which details diagnosis, laboratory results, procedures, strategies for treatment, follow-up appointments, etc. The documentation also includes a separate letter, which details the medication regime.

Source: authors

Closely related to the concerns around the noted lack of standardization of discharge papers was a perceived lack of standardized procedures to share discharge papers with the family physician, the community nurse or the nursing home, an issue raised in the context of interviews which we undertook with different stakeholders around a hypothetical complex patient and which we described in Section 5.1 above. This lack of standardized procedures around discharge documentation and handover mechanisms is not unique to Slovenia. For example, recent work in the USA examined the extent to which office-based physicians received patient health information from providers outside their own practice, including hospitals (Hsiao et al., 2015). This found that just over half of physicians reported to having routinely received a patient's hospital discharge information. There was an indication that those who used an electronic health record system were more likely to receive patient information. This points to opportunities offered by health information technology to support care coordination, as we described in earlier sections of this report. However, Hsiao et al. (2015) noted that even in the presence of such technology, the routine transfer of patient information was not necessarily common, highlighting the need to better understand the conditions under which information technology is being used to enhance care coordination more broadly (see also Box 8, p. 34).

Similar to stakeholder views around the hypothetical complex patient described in Section 5.1 above, health professionals responding to the survey on discharge planning frequently cited the example in the North West region, which uses a dedicated care continuum and coordination nurse who is responsible for discharge planning and post-discharge support, as an example of good practice. One other example of good practice, although not explicitly mentioned by respondents to the surveys, is that of mixed palliative care teams that work as mobile teams in general hospital in Jesenice to support patients at home and in Golnik to support patients after they have been discharged to their own home (Centeno et al., 2013).

The overall evidence on the effectiveness of post-discharge follow-up and support is somewhat limited. However, available evidence suggests that comprehensive support after discharge can reduce readmissions and might improve outcomes (Miani et al., 2014). For example, Leppin et al. (2014) concluded, based on a meta-analysis of randomized controlled trials, that highly supportive discharge interventions reduced the risk of early readmissions by just under 20%. They further demonstrated that interventions that included several components and that supported patient capacity for self-management were more effective in reducing readmissions than other interventions. This suggests that a more strategic approach to discharge planning and support in the Slovenian context, such as those adopted in the North West region, may go some way towards enhancing patient outcomes.

6. The interface between health and long-term care

Long-term care in Slovenia has been proposed as one of the areas in need of reform for some time, most recently the government's 2015 draft resolution on the national health care plan 2015–2025, described in the introduction to this report (Ministry of Health of the Republic of Slovenia, 2015). This need has been recognized in the light of an ageing population in Slovenia, with the share of the population aged 80 years and older in Slovenia projected to rise three-fold, from 4.5% in 2013 to 12.3% in 2060 (Council of the European Union, 2014). For comparison, for the EU-28, these proportions are estimated to be 5.1% and 11.8%. The dependency ratio – that is, the number of those aged 65 years and older as a proportion of those at working age (20–64 years) – has been projected to double, from 26.9% in 2013 to 58.3% (EU-28: 29.9% and 55.3%).

At the same time, and as also highlighted in the government's draft resolution, (multiple) chronic conditions are also increasing, and these tend to be more common among older people. We have described in earlier sections of this report that the complexity of needs arising from multiple chronic conditions, in combination with increasing frailty at old age in particular, requires the development of delivery systems that bring together a range of professionals and skills from both the cure (health care) and care (long-term and social care) sectors to meet those needs.

This section outlines the current long-term care arrangements that are in place in Slovenia and the challenges faced across the health and social care sectors to better link long-term care and to provide better quality of service. It draws, mainly, on an assessment of long-term care in Slovenia prepared for the 2014 Council of the European Union report on adequate social protection for long-term care needs in an ageing society, based on Nagode et al. (2014) and the Host country paper for Peer Review on financing of long-term care (Dominkus et al., 2014).

At present, long-term care is the responsibility of the Ministry of Health and the Ministry of Labour, Family, Social Affairs and Equal Opportunities (MLFSA) and regulated under different sets of legislation, including pensions (Pension and Disability Insurance Act; War Veterans Act and War Disability Act), health care (Health Care and Health Insurance Act), and social and family care (Social Security Act; Financial Social Assistance Act and Exercise of Rights to Public Funds Act; Parental Protection and Family Benefit Act; Act Concerning Social Care of Mentally and Physically Handicapped Persons). There has so far not been a single, overarching regulation concerning long-term care specifically (Council of the European Union, 2014; Meglič et al., 2014). This means that, at present, long-term care is provided through

different routes across the health, social care and pension and disability sectors, with different entry points and different procedures concerning the assessment of entitlements for supplements to support long-term care needs. As a consequence, some service users might benefit more from current arrangements in place than others, or their needs might remain unrecognized altogether.

In line with the international definition of long-term care, Nagode et al. (2014) distinguish four types of long-term care provision:

- *Inpatient long-term care*: provided by nursing homes, special social security institutions, centres for training, occupation and care, and centres for education and rehabilitation of children with special needs;
- *Day cases of long-term care*: provided by day centres in nursing homes and day care centres for training, occupation and care;
- *Home-based long-term care*: provided by community nursing services, home help, family assistant, personal assistance, and housing groups in the field of mental health and part-payment compensation for loss of income;
- *Long-term care cash benefits*: direct payments provided under different schemes including the Act Concerning Social Care of Mentally and Physically Handicapped Persons, the Pension and Disability Insurance Act, the Social Security Act, the War Veterans Act, the War Disability Act and supplements for child care. Recipients of cash benefits are not included in any other formal long-term care service.

At the end of 2012 there were a total of 59,122 recipients of long-term care (Statistical Office of the Republic of Slovenia, 2014). Of these, 35% were in institutional long-term care, with another 35% receiving home-based long-term care services; just under 30% received cash benefits and less than 1% were users of organized day care services (Table 8).

Table 8

Long-term care recipients in Slovenia, 2012

	All recipients	Number of recipients aged 65 years and over	Per cent population aged 65 years and over (n=341,192)
Inpatient long-term care	20 974	17 035	4.99
Day cases of long-term	444	294	0.1
Home-based long-term care	20 446	16 090	4.7
Long-term care cash benefits	17 261	5 656	1.66
Total	59 122	39 075	11.3

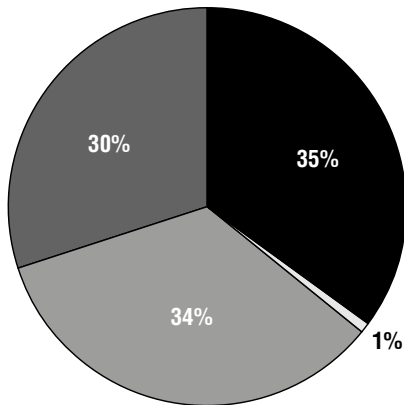
Source: Statistical Office of the Republic of Slovenia, 2014

Inpatient long-term care has a long tradition in Slovenia and it is seen to be well developed and distributed across the country (Nagode et al., 2014). Home-based care has evolved over the past two decades and an increasing number of people are receiving this type of service. Formal care arrangements (institutional and home-based care) are more common among recipients aged 65 years and older (Figure 10).

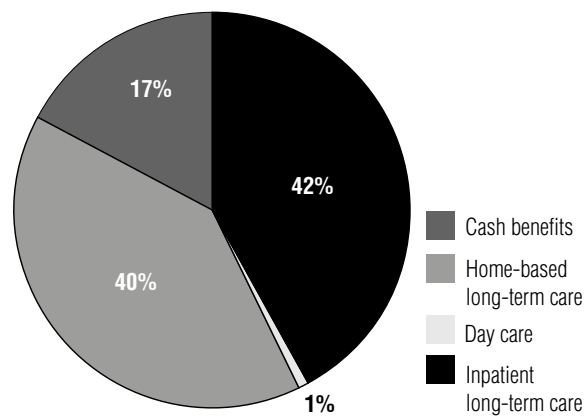
Figure 10

Long-term care provision in Slovenia, 2011

a. Number of recipients of formal long-term care services or cash benefits, 2011



b. Proportion of recipients of long-term care services or cash benefits aged 65 years and older



Source: Nagode et al., 2014

Of those receiving any formal long-term care (excluding cash benefits), almost 80% were aged 65 years and older, equating to some 10% of the Slovenian population aged 65 years and older in 2011 (Table 8). Of these, about half received institutional (inpatient) care and some further 5% received home-based long-term care.

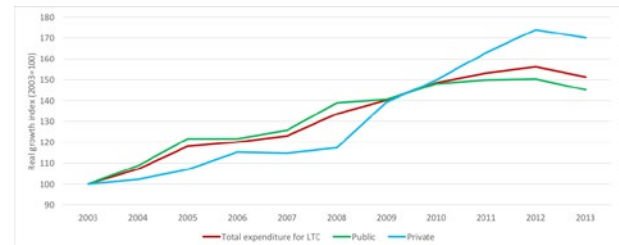
6.1 Expenditure on long-term care

In 2012 the total expenditure on long-term care in Slovenia was EUR 477 million, which equated to 1.32% of GDP (Statistical Office of the Republic of Slovenia, 2014). Of this, almost three-quarters (72.6%) was accounted for by public sources (0.97% of GDP) with the remainder covered by private sources (0.36% of GDP). Between 2003 and 2012 overall expenditure on long-term care grew by 87% (from 0.31% of GDP), and this increase was higher than that of GDP (at 51% over the same period of time). During this period private expenditure grew at a higher

pace than public expenditure, rising from 24% of total expenditure on long-term care in 2003 to 27% in 2012 (Figure 11).

Figure 11

Long-term care expenditure in Slovenia, 2011



Source: Statistical Office of the Republic of Slovenia, calculation by Institute for Macroeconomic Analysis and Development (IMAD) using data from the OECD, Eurostat and WHO System of Health Accounts 2011 methodology.

Private expenditure on long-term care mainly includes co-payments for accommodation and food in nursing homes and other forms of institutional care, along with household expenses for home assistance.

About half of the public budget for long-term care services is covered by mandatory health insurance contributions. In 2012 the Health Insurance Institute of Slovenia (HIIS) spent EUR 165 million, which accounted for 47% of all public expenditures on long-term care. Spending under health insurance is mainly on the provision of health care in nursing homes and in special social security institutions, hospital inpatient long-term care and community nursing. The Pension and Disability Insurance Institute of Slovenia (PDIIS) contributed EUR 80.5 million or 23% to public expenditures on long-term care, mainly care allowances. These are partly also covered by the Ministry of Labour, Family and Social Affairs (MLFSA), which contributed another EUR 13 million or 4% of public funds. Taken together, the funds allocated by the Health Insurance Institute of Slovenia, the Pension and Disability Insurance Institute and the Ministry of Labour, Family and Social Affairs constitute the expenditure on long-term *health* care. The remaining 26% of public expenditure covered long-term *social* care, which is financed, in part, by the state budget (mostly the Ministry of Labour, Family and Social Affairs) and municipal budgets.

Considering long-term care by function of care, expenditure on the health function, while increasing by 77% overall between 2003 and 2013, as a proportion of total expenditure fell from just over 70% in 2003 to 67% in 2013. At the same time the share of spending on the social care function increased (Table 9).

Within the health care function, in 2012 about 72% of total expenditure was allocated to institutional long-term care and 27% to home-based long-term care. Over half of institutional long-term care was allocated to health care provided in nursing homes, some 15% on special social

Table 9

Expenditure on long-term care by source of financing and by function, 2003–2013

	2003	2005	2010	2012	2013	Nominal growth index 2013/2003	Average annual real growth rate (%) 2013/2003
Expenditure on LTC by source of financing (in EUR million)							
Total	254	314	450	480	471	186	5.3
Public	192	245	339	349	342	178	4.8
Private	62	70	111	131	130	209	6.9
Share in GDP (in %)							
Total	0.99	1.08	1.24	1.33	1.30		
Public	0.75	0.84	0.94	0.97	0.94		
Private	0.24	0.24	0.31	0.36	0.36		
Structure (in %)							
Public	75.5	77.8	75.3	72.7	72.5		
Private	24.5	22.2	24.7	27.3	27.5		
Expenditure on LTC by function (in EUR million)							
Total	254	314	450	480	471	186	5.3
Health care (HC.3)	179	230	315	327	314	176	4.6
Social care (HC.R.6.1)	75	84	134	153	157	209	6.9
Structure (in %)							
Health care (HC.3)	70.4	73.3	70.2	68.1	66.7		
Social care (HC.R.1)	29.6	26.7	29.8	31.9	33.3		

Source: Statistical Office of the Republic of Slovenia, calculation by Institute for Macroeconomic Analysis and Development (IMAD) using data from the OECD, Eurostat, and WHO System of Health Accounts 2011 methodology.

security institutions and about 6% on long-term hospital inpatient care (data not shown). About 95% of expenditure on institutional and home-based long-term care was from public sources. Conversely, the majority of expenditure on the social care function of long-term care is from private sources, accounting for some 75% of the total expenditure in 2012.

6.2 Provision of long-term care

Delivery of long-term care services can be through public and private providers, both of which have to meet centrally set standards for long-term care services, such as staffing, qualifications, processes, equipment and premises (Council of the European Union, 2014). Standards are defined by the Health Insurance Institute of Slovenia

(health care services: institutional and community services) and the state (MLFSA for social care services: institutional and home-based care).

As noted above, institutional long-term care in Slovenia is considered to be well developed (Hlebec et al., 2014). It is organized through the network of institutions for older people and people with special needs, which are publicly owned or private with concession; people residing in institutional care are provided with integrated health and social care services (Council of the European Union, 2014). Conversely, the provision of community nursing and home help has been viewed to be less well coordinated; this has, in part, been attributed to different systems overseeing these services, and providers consequently operating under different regulatory systems. Thus, community nursing services are provided by nurses who are employed by community health centres or who are self-employed but are contracted by community health centres (on concession; about 15% of community nurses).

As noted in earlier sections of this report, community nurses are principally tasked with three core functions: (i) health visiting of individuals, families and communities; (ii) care during pregnancy, puerperium and newborn at home; and (iii) care of the patient at home (Železnik et al., 2011). Part of their role is to identify health and social care needs for home and long-term care.

Home help services (social long-term care) are provided, mainly, by public agencies, such as centres for social work and homes for older people and private agencies with concession. Home help includes assistance for activities of daily living (ADL), instrumental activities of daily living (IADL) and social inclusion services (Council of the European Union, 2014). Special types of home-based services for severely disabled users of long-term care include help provided by family assistants and personal assistants.

Long-term care services financed by the Health Insurance Institute of Slovenia are essentially free of charge for service users. Conversely, social long-term care services are only partially subsidized by the state or the municipality. Access to publicly subsidized long-term care services is upon means-testing based on the rules set by the government. The competent Centre for Social Work at the municipality level may grant partial or full exemption from payment for long-term care services by the service user for institutional and community-based services (Council of the European Union, 2014). Full or partial exemption from payment is defined on the basis of a maximum cap on spending and the ability of users or their families to pay for the service. Where contributions do not cover the costs associated with the long-term care provided, the remaining amount is paid for by the local municipality or central government. Local government may further stipulate entitlements.

However, municipalities vary in their ability to provide adequate community-based long-term care services for older people in particular, with differences between urban and rural areas (Hlebec et al., 2014). Available evidence suggests that especially rural areas frequently do not provide for sufficient institutional care and social home care, while urban areas tend to offer a wide range of assistance.

6.3 Summary

It has been noted that in Slovenia long-term care provision tends to be dominated by institutional care (Council of the European Union, 2014; Nagode et al., 2014; Hlebec et al., 2014). Although home-based long-term care arrangements have been developed over the past two decades and an increasing number of people are receiving this type of service, there remains a focus on institutional care, at least as far as the allocation of financing is concerned. It has

further been noted that the current arrangements might overly rely on medical and curative approaches, with less emphasis is being placed on rehabilitation and prevention (Council of the European Union, 2014). An evaluation of long-term care arrangements in Slovenia highlighted that the system would currently lack transparency, with particular challenges posed by different entry points and different needs assessment procedures, which creates conditions that risk unequal treatment of people in need of long-term care services. There are also concerns about a lack of coordination between the health and social care services in home-based care in particular, as well as the provision of adequate services in certain regions of Slovenia.

These concerns have been recognized by the government and a proposed reform of the long-term care system in Slovenia foresees bringing together the different existing regulations under one new Act on long-term care, personal assistance and long-term care insurance. The new law is anticipated to regulate the content of long-term care, that is the range of services to be provided, as well as ensuring stable financing. These moves have been highlighted further in different strategic documents and in the aforementioned government's 2015 draft resolution on the national health care plan 2015–2025, which notes that *“[i]n the future it will be necessary to provide a comprehensive system of social and medical assistance for persons who are dependent on aid from others in the long term. Based on anticipated changes in legislation, the system of long-term care will include a unified way to access services, integrated implementation of activities in various forms and a uniform method of financing.”*

The 2013 government blueprint for long-term care reform envisages a single entry point (one stop shop) and a uniform expert procedure for long-term care needs assessment, based on 15 criteria related to managing basic and supportive activities of daily living. The person in need will take part in the needs assessment procedure and will at the end decide on the type of care and support needed and preferred (services or cash-benefit or a combination of both, or technical aid including the possibility of adaptation of the place of residence). If the person in need opts for cash-benefit to be used for informal domestic care, the informal carer has the right to appropriate training and advice; the blueprint further envisages the supervision of domestic care (Dominkus et al., 2014).

There is an expectation that the new regulatory context will promote active and healthy ageing and strengthen community forms of care and focus on de-institutionalization through adequate staffing, financing of long-term care at the primary level and in homes for the elderly and other social institutions to better meet the specific needs of an ageing population.

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Appendix A.

Enablers of and barriers to adopting good practice in the day-to-day management of patients with type 2 diabetes: focus group protocol

General guide for the focus group meetings

This document provides you with a detailed guide for the focus group meetings.

It consists of the following sections:

1. Checklist for preparing the focus group
2. Outline of the meeting
3. Interview guide
4. Instructions after the focus group

Separately, you will receive the following documents:

- Interview questions
- Sample confirmation letter for interviewees
- Sample list of participants
- Informed consent form

1. Checklist for preparing the focus group

- Send all participants adequate information about the focus group beforehand (see sample confirmation letter):
 - Practical information: date, time, location and duration of the meeting
 - Why they are invited
 - Who the other participants are
 - What the goal of the meeting is
 - Questions that will be discussed in the focus group
- Prepare the list of participants
- Check the voice recording device
- Check the meeting room: placing of tables and chairs, computer, beamer, refreshments
- Bring informed consent forms and pens

2. Outline of the meeting

The meeting takes 2–2.5 hours

Introduction:	approx. 15 min
First set of questions:	approx. 45 min–1 hour
Short break (if needed):	approx. 10 min
Second set of questions:	approx. 45 min–1 hour
Closing remarks:	approx. 5 min

3. Interview guide

Introduction (15 min)

- **Welcome** the participants and thank them for their attendance
- **Introduce** the moderator and assistant
- **Introduction** of the participants: invite them to state the name, job title or role and – if applicable – the organization he/she represents. Please keep this short
- **Goal:** The goal of this meeting is to discuss [please use the appropriate sentence]:
- **STEERING GROUP/KOORDINATIVNA SKUPINA:** what barriers members of the Steering Group see in their current activities at macro and meso levels in implementing the Diabetes Prevention and Care Development Programme 2010–2020 as a starting point
- **EDUCATION/EDUKACIJA:** what barriers RNs educators with special knowledge of diabetes, RNs that work in model practices in family medicine and RNs that work in Centres for health promotion see in their current day-to-day education of patients with diabetes with the National Diabetes Guidelines for Slovenia (2011) as a starting point
- **COMMUNITY NURSES/PATRONAZA:** what barriers community nurses see in their current day-to-day management of patients with diabetes with the National Diabetes Guidelines for Slovenia (2011) as a starting point
- **DIABETOLOGISTS/DIABETOLOGI:** what barriers diabetologists see in their current day-to-day management of patients with diabetes with the National Diabetes Guidelines for Slovenia (2011) as a starting point
- **PATIENTS/BOLNIKI:** what barriers patients (representatives of societies of patients with diabetes) see in their current day-to-day management of diabetes
- **FAMILY MEDICINE SPECIALISTS/SPECIALISTI DRUŽINSKE MEDICINE:** what barriers specialists in family medicine (working in model practices or not) see in their current day-to-day management of patients with diabetes with the National Diabetes Guidelines for Slovenia (2011) as a starting point
- **Duration:** The meeting will take 2–2.5 hours
- **Voice recording:** "With your permission, we would like to record this meeting. The recording will only be used for reporting the results of the meeting and will be deleted after finalization of the report." Ask permission to record the meeting with a voice recording device. <After consent, start the recording>
- **Reporting the results:**
 - Your information will only be used anonymously.
 - You will receive a report of this meeting, which you can check for errors.

- This group interview is a part of a project, "Analysis of the health system in Slovenia", led by the EU Observatory on Health Systems and the Ministry of Health and will be carried out in several groups with different participants, focusing on diabetes.
- The results will be reported to the EU Observatory on Health Systems, which will use the results to prepare a final report of the Analysis.
- **Ground rules:** Shall we agree on the following ground rules?
 - All participants are invited because of their relevant expertise and experience. Every participant and every contribution is equally important to us.
 - Everyone will have the opportunity to share their experience and opinion. Do not interrupt each other. Only the moderator is allowed to interrupt the participants.
 - There are differences between people concerning experience and opinion. It is not necessary to agree with each other. We are interested in these different experiences and opinions.
 - All participants are requested to maintain confidentiality about the content of the meeting.
 - It may be necessary for the moderator to break off a discussion or to interrupt a participant. This is because of the time or to give someone else the opportunity to speak. We hope you will not consider this to be impolite or lacking in interest.
- **Informed consent form:** Please fill in and sign the informed consent form.

Interview questions

You will find the interview questions and definitions when needed in separate documents

Introduction:	approx. 15 min
First set of questions:	approx. 45 min–1 hour
Short break:	approx. 10 min
Second set of questions:	approx. 45 min–1 hour
Closing remarks:	approx. 5 min

Moderating the discussion

- Keep all participants involved in the discussion
- When someone dominates the discussion, thank him/her for their opinion. Tell him/her – in a polite but clear way – that you are now giving the other participants the opportunity to share their views. If necessary, interrupt him/her (referring to your introduction)
- When someone is shy and hesitant to participate in the discussion, ask him/her what their experience is with the current topic. You can also use one of the following probing questions:
- Probing questions you can use for obtaining more in-depth information:
 - That is interesting. Can you tell us more about that?
 - Can you explain that? Can you give an example?
 - Is that important to you? What makes that important to you?
 - When you feel that not all options are mentioned: And what about ... ? Is ... also relevant?
- After someone has given a reaction, or stated their opinion, you can use “silent probing”, i.e. remaining silent for about five seconds, to probe the other participants to react

Closing remarks (5 min)

- Ask the participants whether they missed anything in the discussion or whether there is anything they would like to add
- Thank the participants for their contribution
- Inform the participants about what will happen after this meeting:
 - You will receive a report of this meeting which you can check for errors
 - The results will be reported to the EU Observatory on Health Systems, which will use the results to prepare a final report of the Analysis

4. Instructions after the focus group

- Check the voice recording
- Finalize the report. Listen to the recording if something remains unclear
- Send the report to the participants and ask them to check it for errors. Allow a week for this
- Send the final reports that include a short summary, list of participants and signed informed consent forms, to jelka.zaletel@kclj.si and tatjana.buzeti@gov.si

INFORMED CONSENT FORM for participating in focus groups meetings**Project Title: Analysis of the health system in Slovenia, Activity 5, Task 1.3 Case Study: Diabetes****Part 1 (to be completed by the participant)**

Question	Answer (encircle)	
Do you understand that you have been asked to participate in a group interview about care delivery in diabetes?	Yes	No
Has the aim of today's group interview been explained to you?	Yes	No
Did you receive enough information about the project and is the project well enough explained to you?	Yes	No
Do you understand that we will use your information only as part of this project?	Yes	No
Do you understand that your information will only be used anonymously?	Yes	No
Have you had an opportunity to ask questions and discuss this project?	Yes	No
Do you understand that you are free to refuse to participate, or to withdraw from the group interview at any time, without consequence, and that your information will be withdrawn at your request?	Yes	No
Has the issue of confidentiality been explained to you? Do you understand who will have access to your information?	Yes	No

This study was explained to me by the moderator and assistant moderator.

I agree to take part in this study.

.....

Printed name

.....

Signature of participant

.....

Date

Part 2 (to be completed by the moderator of the group interview)

I believe that the person signing this form understands what is involved in the group interview and voluntarily agrees to participate.

.....

Printed name

.....

Signature of focus group moderator

.....

Date

Questions for focus group meeting to explore delivery of education to patients with diabetes

Goal of the focus group

To identify what barriers RNs educators with special knowledge of diabetes, RNs that work in model practices in family medicine and RNs that work in Centres for health promotion see in their current day-to-day education of patients with diabetes with the National Diabetes Guidelines for Slovenia (2011) as a starting point.

Keeping the goal of the focus group in mind, we would like you to discuss and answer the following questions in your focus group.

The first set of questions is based on the National Diabetes Guidelines for Slovenia (2011)

1. What are the barriers in your current day-to-day work in education of patients with diabetes:

1.a: in patients with newly diagnosed type 2 diabetes?

1.b: in regular yearly follow-up education?

1.c: when patients or their relatives ask for education at their own choice?

1.d: in patients starting insulin treatment?

1.e: in patients with type 1 diabetes?

1.f: in diabetes in pregnancy?

1.g: in diabetes in childhood and adolescence?

The second set of questions is based on the Diabetes Prevention and Care Development Programme 2010–2020

2. What are the barriers in your current day-to-day work in education of patients with diabetes that result in patient empowerment?

Definition: Patient empowerment is a process that enables people to gain control over their own lives and increases the capacity of people to act on issues that they themselves define as important

3. What are the barriers in your current day-to-day work in education of patients with diabetes that result in coordination of care with medical doctors and other RNs?

4. What are the barriers in your current day-to-day work in education of patients with diabetes that result in monitoring and evaluation of your work?

Questions for focus group meeting to explore delivery of care to patients with diabetes by community nurses

Goal of the focus group

To identify what barriers community nurses see in their current day-to-day care of patients with diabetes with the National Diabetes Guidelines for Slovenia (2011) as a starting point

Keeping the goal of the focus group in mind, we would like you to discuss and answer the following questions in your focus group.

The first set of questions is based on the National Diabetes Guidelines for Slovenia (2011)

What are the barriers in your current day-to-day work in care of patients with diabetes in the following fields?

1. type 2 diabetes prevention and early detection
2. treatment (antihyperglycemic, antihypertensive, dyslipidemia)
3. early detection and treatment of cardiovascular complications
4. screening for and treatment of diabetic retinopathy
5. screening for and treatment of diabetic kidney disease
6. screening for and treatment of diabetic foot
7. education of patients
8. preparation of structured yearly report
9. organization of care
10. care for patients with multiple diseases or complex need, not related to diabetes
11. psychosocial care
12. access to diabetologists
13. specifics of care of patients with type 1 diabetes
14. specifics of screening and care of diabetes in pregnancy
15. specifics of care of patients with diabetes in childhood and adolescence

The second set of questions is based on the Diabetes Prevention and Care Development Programme 2010–2020

2. What are barriers in your current day-to-day work in care of patients with diabetes that result in patient empowerment?

Definition: Patient empowerment is a process that enables people to gain control over their own lives and increases the capacity of people to act on issues that they themselves define as important

3. What are the barriers in your current day-to-day work in care of patients with diabetes that result in coordination of care with other medical doctors and RNs?

4. What are the barriers in your current day-to-day work in care of patients with diabetes that result in monitoring and evaluation of your work?

Questions for focus group meeting to explore delivery of care to patients with diabetes at secondary outpatient level, as seen by diabetologists

Goal of the focus group

To identify what barriers diabetologists see in their current day-to-day care of patients with diabetes with the National Diabetes Guidelines for Slovenia (2011) as a starting point

Keeping the goal of the focus group in mind, we would like you to discuss and answer the following questions in your focus group

The first set of questions is based on the National Diabetes Guidelines for Slovenia (2011)

What are the barriers in your current day-to-day work in care of patients with diabetes in the following fields?

1. treatment (antihyperglycemic, antihypertensive, dyslipidemia)
2. early detection and treatment of cardiovascular complications
3. screening for and treatment of diabetic retinopathy
4. screening for and treatment of diabetic kidney disease
5. screening for and treatment of diabetic foot
6. education of patients
7. preparation of structured yearly report
8. organization of care
9. care for patients with multiple diseases or complex need, not related to diabetes
10. psychosocial care
11. specifics of care of patients with type 1 diabetes
12. specifics of screening and care of diabetes in pregnancy
13. specifics of care of patients with diabetes in childhood and adolescence

The second set of questions is based on the Diabetes Prevention and Care Development Programme 2010–2020

2. What are barriers in your current day-to-day work in care of patients with diabetes that result in patient empowerment?

Definition: Patient empowerment is a process that enables people to gain control over their own lives and increases the capacity of people to act on issues that they themselves define as important

3. What are barriers in your current day-to-day work in care of patients with diabetes that result in coordination of care with other medical doctors and RN educators?

4. What are barriers in your current day-to-day work in care of patients with diabetes that result in monitoring and evaluation of your work?

Questions for focus group meeting to explore delivery of care to patients with diabetes at primary care level, as seen by specialists of family medicine

Goal of the focus group

To identify what barriers specialists of family medicine see in their current day-to-day care of patients with diabetes with National Diabetes Guidelines for Slovenia (2011) as a starting point

Keeping the goal of the focus group in mind, we would like you to discuss and answer the following questions in your focus group.

First set of questions is based on National Diabetes Guidelines for Slovenia (2011)

What are barriers in your current day-to-day work in care of patients with diabetes in the following fields:

1. type 2 diabetes prevention and early detection
2. treatment (antihyperglycemic, antihypertensive, dyslipidemia)
3. early detection and treatment of cardiovascular complications
4. screening for and treatment of diabetic retinopathy
5. screening for and treatment of diabetic kidney disease
6. screening for and treatment of diabetic foot
7. education of patients
8. preparation of structured yearly report
9. organization of care
10. care for patients with multiple diseases or complex need, not related to diabetes
11. psychosocial care
12. access to diabetologists
13. specifics of care of patients with type 1 diabetes
14. specifics of screening and care of diabetes in pregnancy
15. specifics of care of patients with diabetes in childhood and adolescence

Second set of questions is based on Diabetes Prevention and Care Development Programme 2010–2020

2. What are barriers in your current day-to-day work in care of patients with diabetes that result in patient empowerment?

Definition: Patient empowerment is a process that enables people to gain control over their own lives and increases the capacity of people to act on issues that they themselves define as important

3. What are barriers in your current day-to-day work in care of patients with diabetes that result in coordination of care with other medical doctors and RNs?

4. What are barriers in your current day-to-day work in care of patients with diabetes that result in monitoring and evaluation of your work?

Questions for focus group meeting to explore delivery of care to patients with diabetes, as seen by patients

Goal of the focus group

To identify what barriers patients see in their current day-to-day management of diabetes with the National Diabetes Guidelines for Slovenia (2011) as a starting point

Keeping the goal of the focus group in mind, we would like you to discuss and answer the following questions in your focus group

The first set of questions is based on the National Diabetes Guidelines for Slovenia (2011)

What are barriers in your current day-to-day management of diabetes in the following fields:

Treatment and chronic complications – Can you name the main problems you are experiencing during your treatment? Who is taking care of your treatment? Do you have regular yearly visits? What are the waiting periods for specialists?

Education – Did you receive enough information and support from health professionals about the disease when you were diagnosed with diabetes? When your treatment was changed? Are you getting a yearly follow-up education? Do you get education whenever you or your relatives ask for it?

Coordination of care – Do you feel that the health care you are getting is well organized? Do you get all necessary health information you need to know how are you doing with diabetes? Do you think that doctors and nurses take care of how you live with diabetes in your everyday life, what are your social circumstances and your other medical problems?

The second set of questions is based on the Diabetes Prevention and Care Development Programme 2010–2020

Considering your understanding of features of type 2 diabetes, do you think that people around you recognize the signs of type 2 diabetes? Are they aware of the risk factors for type 2 diabetes?

Is there anything that prevents you from taking care of your illness? Can you follow doctor's instructions?

Do you feel that your ideas, needs and goals are being considered during treatment?

Appendix B.

Challenges and experiences of good practice in the management of people with multiple care needs: methodological approach

Figure A.1

Hypothetical service user journey: family medicine practice in the community health centre

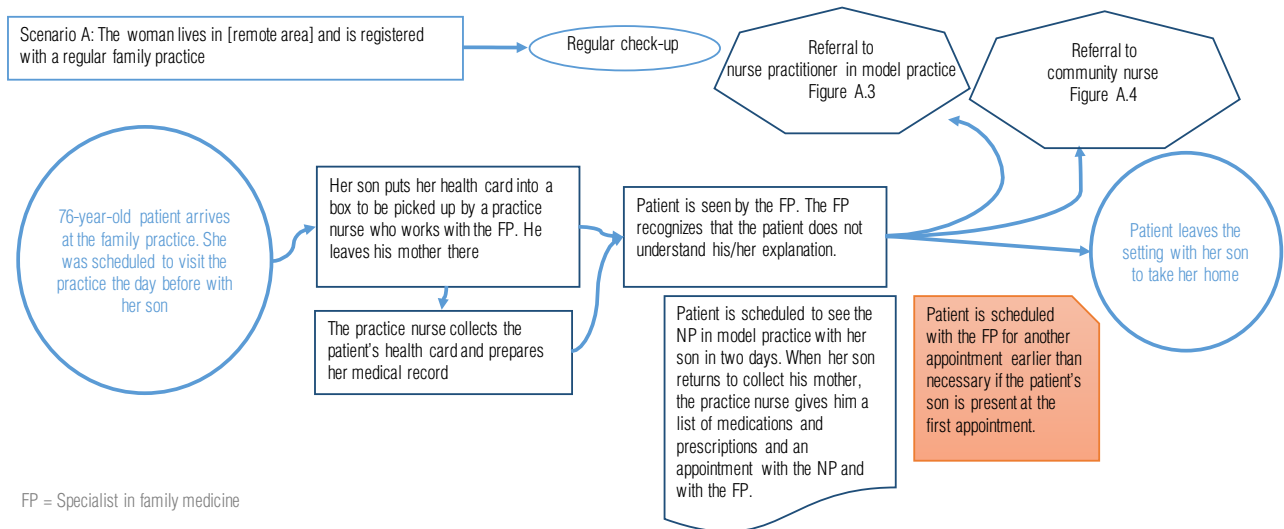


Figure A.2

Hypothetical service user journey: family medicine practice with concession

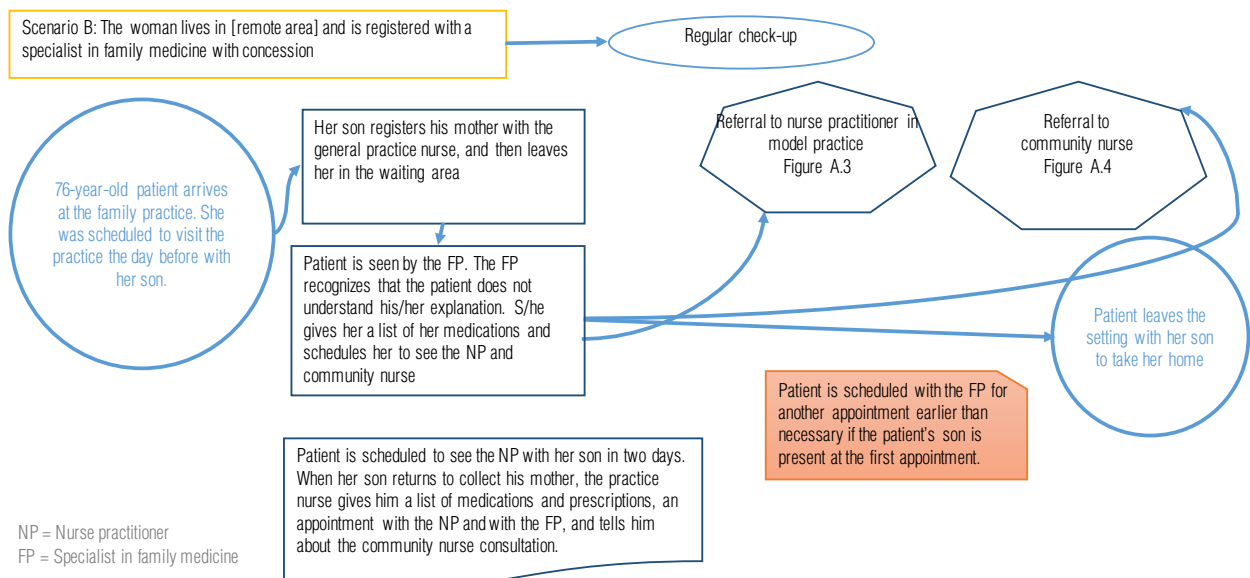


Figure A.3
Hypothetical service user journey: family medicine model practice

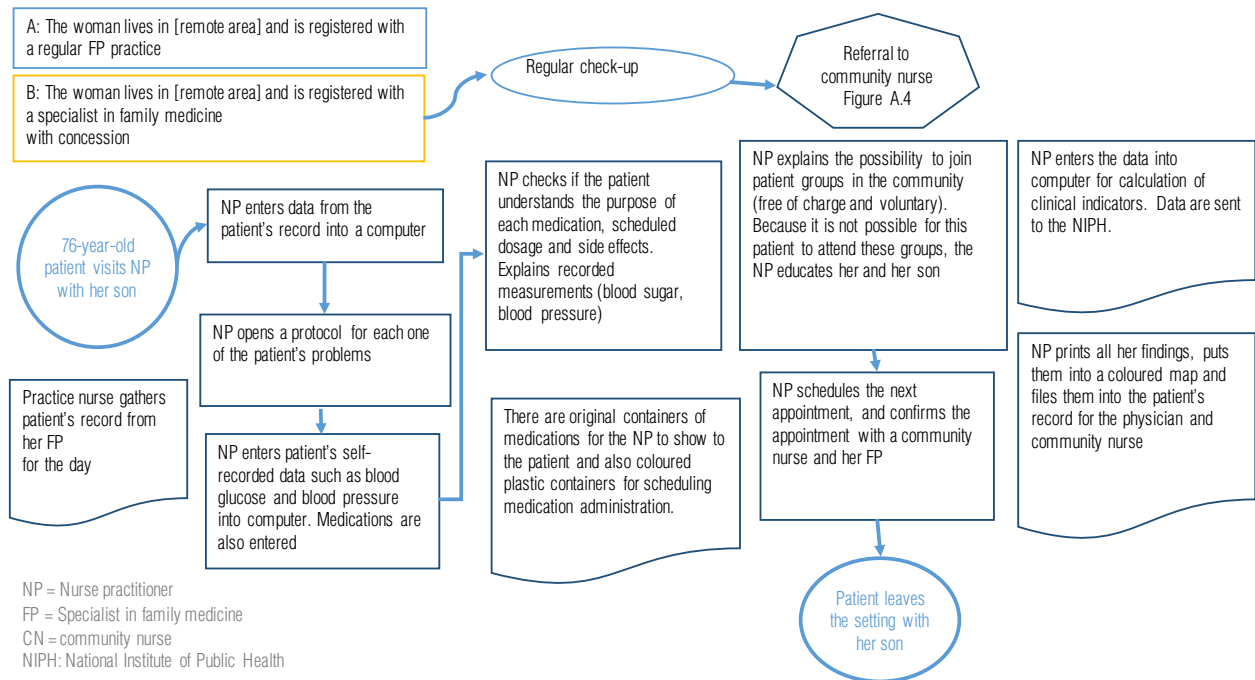


Figure A.4
Hypothetical service user journey: community nurse

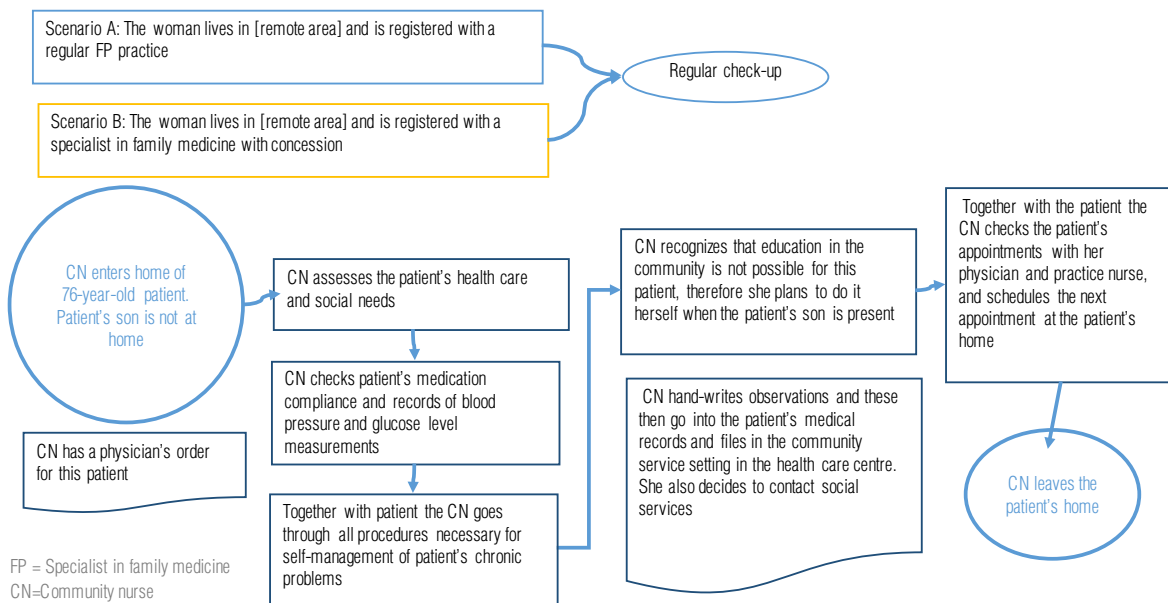


Figure A.5
Hypothetical service user journey: referral to a specialist outpatient clinic

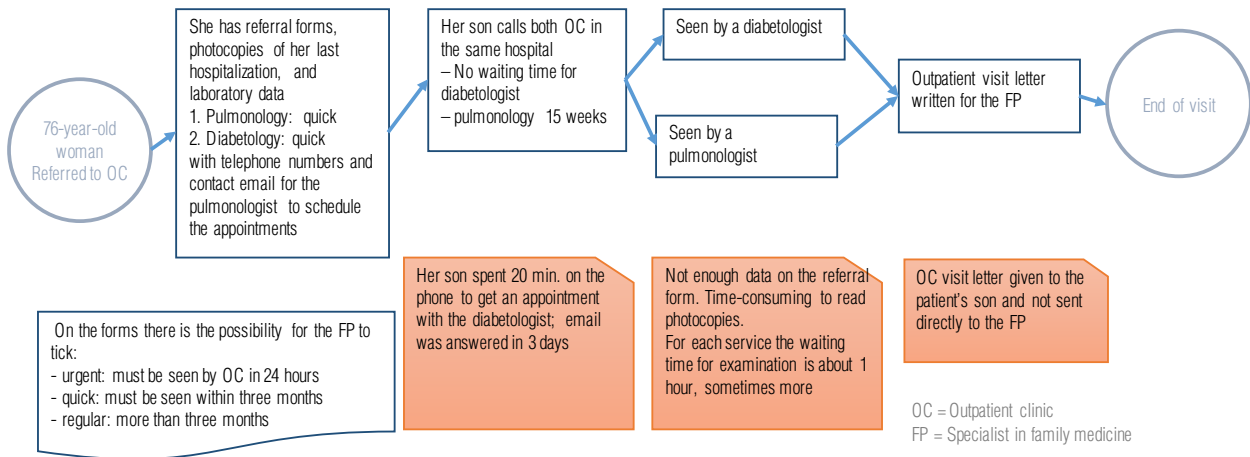


Figure A.6
Hypothetical service user journey: admission to hospital

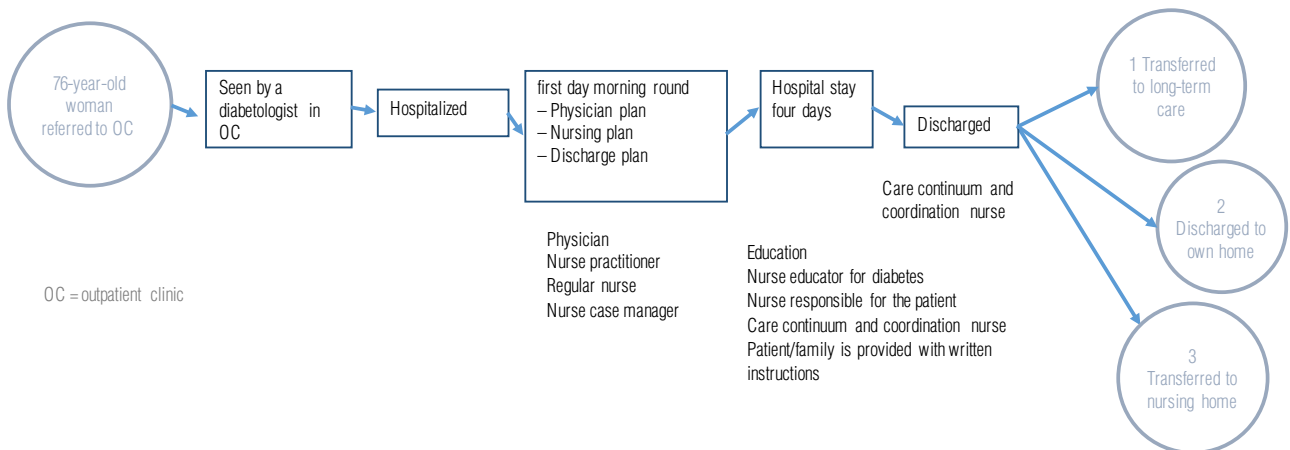


Figure A.7
Hypothetical service user journey: transferral to hospital emergency department by emergency service

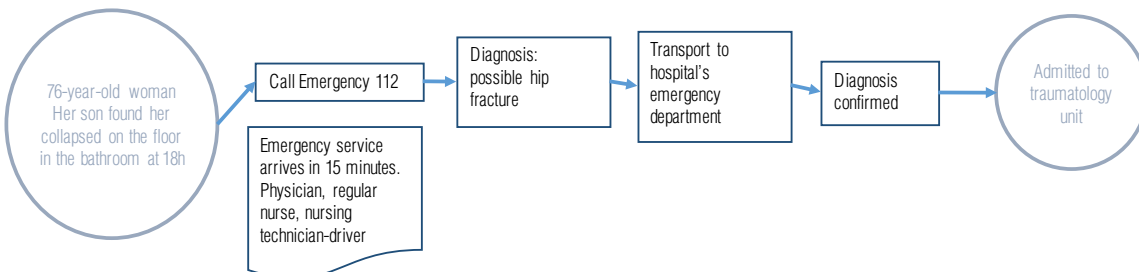


Figure A.8
Hypothetical service user journey: admission to the trauma unit

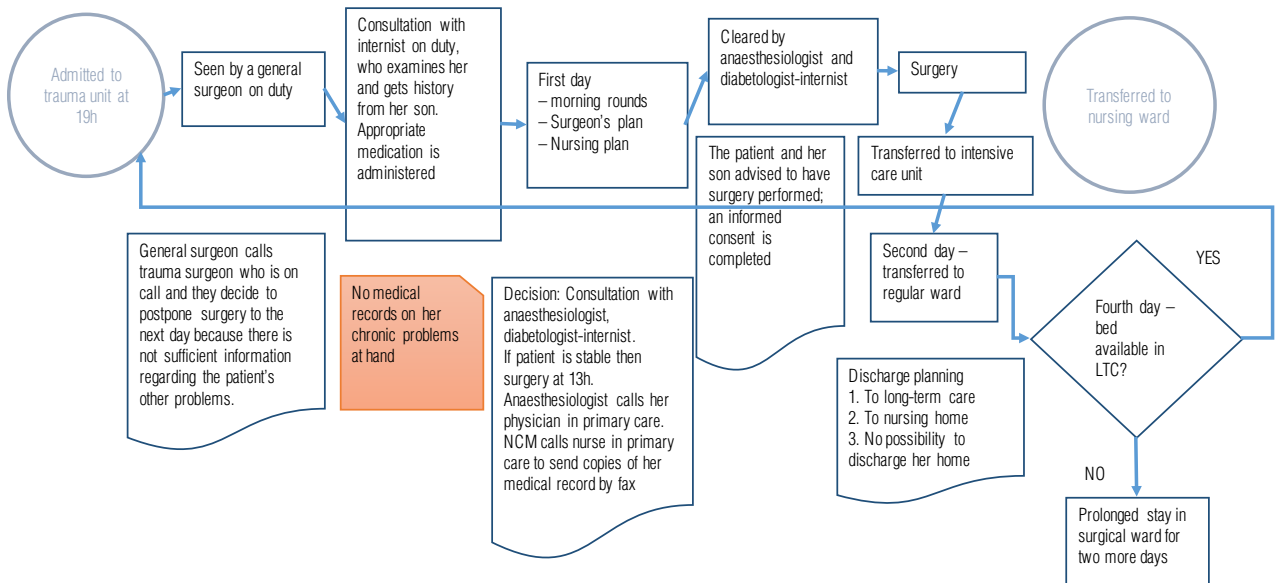


Figure A.9
Hypothetical service user journey: transferral to nursing home from nurse-led hospital ward

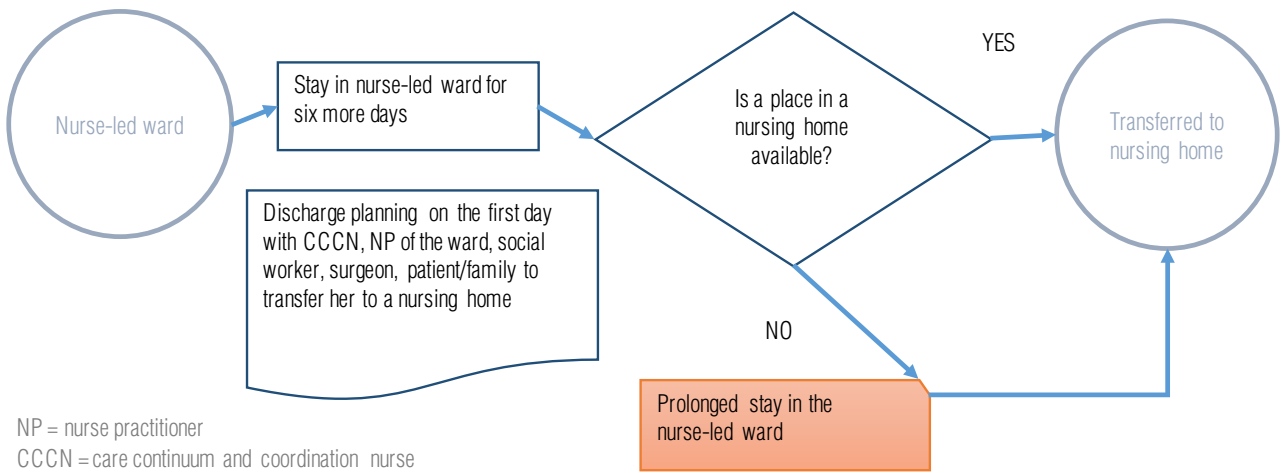
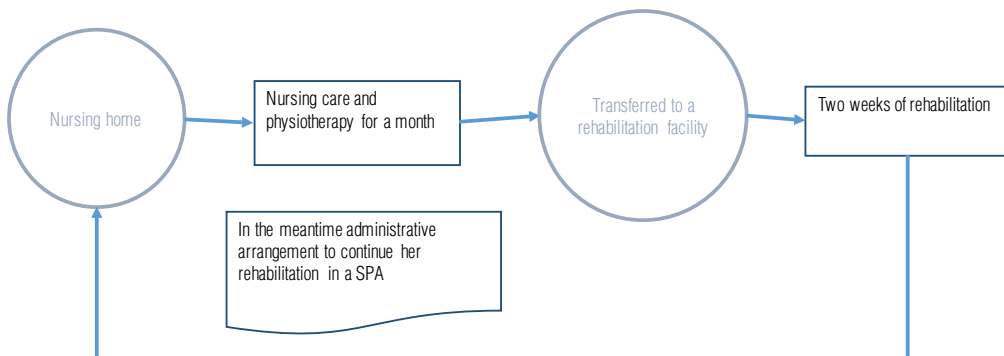


Figure A.10
Hypothetical service user journey: transferral from nursing home to a rehabilitation facility 4–6 weeks after hip surgery



Appendix C.

Processes and procedures for discharge planning: hospital discharge planning questionnaire

QUESTIONNAIRE

Hospital discharge planning

Before you, you can find a questionnaire which is related to hospital discharge planning.

For the purpose of Slovenian health care system analysis, we would like, with your help, to identify your views on the current arrangement of hospital discharge, especially of elderly patients with multi-morbidity.

Your observations are very important for the identification of any current problems which you and your patients have. In that manner we can find the improvements, which will benefit patients and employees in the health care system.

We would like to know, how the hospital discharges are regulated at this time, where are the obstacles and problems.

Please do NOT describe an ideal state, how the discharge planning should be arranged. In order to improve the current state of the health care system, it is vital to present the real situations. Describing ideal situations will not bring additional value.

Your anonymity is guaranteed. In our report we will state only the obstacles and problems with which hospitals are faced, but the source will not be able to be identified.

Please mark your function at the hospital:

1. Medical director
2. Leading hospital nurse
3. Medical director of internal department
4. Leading nurse of internal department
5. Medical director of surgery department
6. Leading nurse of surgery department
7. Surgeon specialist
8. Nurse in surgery department
9. Internal medicine specialist
10. Nurse in internal medicine

Please describe how you plan a patient discharge.

- a) When do you start with the patient discharge planning at your department/hospital?
- b) Who is responsible for the discharge planning?
- c) Do you have a discharge planning coordinator?
- d) Who informs a patient and his relatives about the discharge planning?
- e) Who educates the patient and relatives for home self-care?
- f) What written information does the patient or his relatives receive?
- g) What written information does the patients' general practitioner receive?
- h) What written information does the model practice receive?
- i) What written information does the community nurse receive?
- j) Who receives the temporary discharge papers, and when, and what does it contain?
- k) Who receives the final discharge papers, and when, and what does it contain?
- l) How do you arrange a discharge to a nursing home, if a patient was not in their institution before?
- m) How do you arrange a discharge to a nursing hospital?

Policy of discharge (rules and instructions for discharge)

Please tick the appropriate field (✓)	Yes	No	Partially
1. Hospital has written instructions for patient discharge in place			
2. All patients are assessed for the risks of complications that can occur after discharge			
3. Patients' needs after discharge are evaluated			
4. Discharge planning commences on admission.			
5. Hospital has a person responsible for discharge planning			
6. Hospital staff conclude the evaluation of patients' needs after discharge in good time, and avoid any unnecessary delay of discharge			
7. Hospital discusses the patients' needs with the patients and their relatives			
8. Nurse, social worker and other competent staff oversee the discharge process			
9. Patients and their relatives receive health education throughout the length of hospitalization and not only at discharge			
10. Hospital discharges or transfers patients with all the necessary information for continuous health and social care			
11. Hospital regularly evaluates the process of discharge planning, so it can fulfil the need for coordinated and continuous care of patients			
12. Discharge papers are prepared before discharge and updated at the time of discharge			
13. Every discharge has a written plan which includes all medication and procedures, diet, healthy life adjustments, continuous health and social services, health education, improvement of health literacy and instructions in case of complications			
14. The patient receives a copy of the discharge papers			
15. The patient's family physician and other relevant service providers (nurse practitioner, community nurse, retirement home, etc.) receive a copy of the discharge papers within 48 hours following discharge			
16. The discharge processes are evaluated and continuously improved			

Questions for a nurse who is responsible for the patient

Please tick the appropriate field (✓)	Yes	No	Partially
1. Health education is carried out the whole time during the hospitalization			
2. Patient receives specialist and additional examination appointments at the time of discharge			
3. We always ensure that a patient knows when and where to go			
4. At every examination we inform a patient about who is responsible for their follow-up results of examinations			
5. We explain to a patient which medication he has to use and inform him of any changes			
6. Patient medication in hospital is coordinated with the medication that he has used prior to hospitalization			
7. We inform a patient of every medication use, instructions for taking and possible side effects			
8. We inform the patient what to do if any health problems arise			
9. We inform a patient what is an urgent situation, what to do, who to call			
10. Discharge papers are concluded before the discharge			
11. Patient receives printed discharge papers on the day of discharge			

Questions for a nurse or a discharge coordinator who is responsible for discharge planning

Please describe the written information a patient receives about nursing in the discharge papers:

Please tick the appropriate field (✓)	Yes	No	Partially
Control over discharge planning			
Coordination of all activities related to discharge planning			
Influence on team activities and discharge planning			
Collects data required for discharge			
Ensures realization of discharge planning and that the patient understands what to do after discharge			
Discusses discharge planning with a patient and relatives			
Ensures that the patient and their relatives understand what to do after discharge			
Phones patient 2–3 days after discharge			
Phones community nurse where required by patient			

Questions for a physician who is responsible for a patient

Please describe the information that you include in the discharge papers:

Please tick the appropriate field (✓)	Yes	No	Partially
Begins preparing a plan for medical treatment based on a clinical pathway			
Leads and cooperates on rounds for discharge planning			
Proposes a possible discharge date			
Communicates with a team about medical treatment after discharge			
Prepares the discharge papers			
Communicates with the patient and the patient's family physician			