

Chapter 2

Primary care and care co-ordination in Sweden

Indicators of health, health care quality and long-term care for the elderly in Sweden are among the best internationally. The Swedish health care system now faces the challenge of delivering high quality, user-centered and well-co-ordinated services, while coping with the pressures common to most developing countries of an ageing population, growing prevalence of chronic disease and budgetary constraints. Primary care's role in preventing and managing the burden of chronic disease, and in co-ordinating care across services and providers, will be critical to meeting this challenge.

While health and social care policies are broadly defined by the central government, Sweden has a highly devolved care system. Lead responsibility for the funding, organisation, management and delivery of health care services rests with the 21 county councils and regions, and of long-term care for older people with the 290 municipalities. While health and social care services in Sweden are generally of a high standard, divided administrative responsibilities for care mean that no single agency is responsible for care co-ordination. Government reforms introducing patient choice and competition in primary care also have implications for primary care's de facto role in care co-ordination.

This chapter examines the organisation of primary care in Sweden and how well prepared it is to meet emerging challenges, especially those of prevention, chronic disease management and care co-ordination across multiple service providers. We also consider how Sweden's skilled primary care sector can be further developed to improve the quality and co-ordination of care for the Swedish population.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

2.1. Introduction

In common with most developed countries, longevity and the numbers of people with chronic disease who need long-term health and social care are rising in Sweden on account of population ageing and technological advances in medicine. These pressures on the demand side, compounded by the unprecedented financial constraints facing most countries, are major challenges for the Swedish health care system in delivering high quality care and meeting rising patient expectations. The concomitant need for services that are well-co-ordinated, both within and across health and social care, and covering the full spectrum of services from prevention and early diagnosis to treatment of established disease, provision of long-term health and social care, and services for palliative care, is an additional challenge for the Swedish primary care sector.

Sweden's population is elderly and ageing. The proportion of the total population aged 65 years and over (19.3%), and 80 years and over (5.5%), is fourth highest among the OECD countries (*OECD Health Statistics 2013*). These proportions are expected to rise to 24% and 10% respectively by 2050. There is also a geographical component to this demographic issue – the northern counties of Sweden are ageing more rapidly than the rest of Sweden because of outward migration of young people. These counties are also more rural, sparsely populated across large areas, and they experience staff shortages and recruitment difficulties, posing additional challenges to the provision of health care.

With an ageing population, growing burden of disease and multi-morbidities, and no significant change in funding or the workforce anticipated, Sweden faces the challenge confronting all developed economies of how to deliver more with less and without compromising quality. Restructuring of the hospital sector into fewer, more specialised units, transfer of care from hospitals to the community, and the quality and cost pressures to reduce hospital admissions, are also placing increased demands on primary care to play a more proactive and ambitious role in the delivery and co-ordination of health care.

The significant contribution that primary care can make to improvements in population and individual health, and reductions in health inequalities and health care costs, are well documented and apply over time and across health systems (Starfield et al., 2005; Kringos, 2012). Countries with health care systems based on a strong primary care sector have better health at lower costs. The unique features of primary care identified by Starfield include first contact access and use of primary care services; person rather than disease focused care over time; comprehensiveness of services provided within primary care; and care co-ordination. A coherent primary care system, with

general practice as its integrative core, has the potential to improve the quality, co-ordination, responsiveness and cost-effectiveness of health care services (Shi et al., 2002; Boerma et al., 1998).

Sweden's health care system is founded on a well-organised and comprehensive primary care sector, and most patients enter the health care system via primary care. The sector is therefore well placed to play a prominent role in reducing the disease burden and improving care co-ordination and integration. With growing pressures on the demand for and supply of health care, the Swedish Government aims to enhance the role of primary care, including in secondary prevention and care co-ordination, while simultaneously promoting its reform agenda of offering patients their choice of provider and competition among providers.

This chapter examines the organisation of primary care in Sweden, the reforms underway, the achievements of primary care to date, and how well prepared primary care is to meet the emerging challenges, especially in terms of managing the burden of chronic disease and co-ordinating care across multiple service providers. We also consider how Sweden's well-developed primary care sector can contribute further to improvements in the quality and co-ordination of care for the Swedish population.

In this chapter primary care is defined as the community-based, physician-led clinics that provide generalist medical care to local populations, including health promotion and preventive interventions, and a broad range of community-based specialist services. The primary care sector sits alongside national public health programmes for health protection, health promotion and prevention, which are not discussed here.

2.2. The configuration of primary care in Sweden

Sweden's model of primary care offers good development potential for the future

In Sweden responsibility for primary care rests primarily with the 21 county councils and regions. Long-term care for older people living at home, in care homes or nursing homes, and for those with disabilities or long-term mental health problems, is the responsibility of the 290 municipalities. Primary health care is generally the route of entry into health care for Swedish patients, and for signposting to services. However, registration with a primary care physician or practice is not compulsory and, in contrast to many countries with a national health care system, primary care in Sweden has no formal gate-keeping role; patients are able to, and sometimes do, access specialist care directly (Paris et al., 2010). Sweden is

one of the few EU countries without a national system of gate-keeping (Masseria et al., 2009).

Sweden has a comprehensive, national network of about 1 200 public and private primary health care centres covering the country, about 40% of which are privately owned. Since the 1970s, Sweden has encouraged large “one-stop shop” clinics where patients can access both GPs and specialists, and some diagnostic and laboratory services, thereby enhancing the range of services available to patients outside hospital (Masseria et al., 2009). Typically, primary care in Sweden comprises physician-led clinics providing medical, preventive and rehabilitative care that does not require the medical and technical facilities of a hospital. They tend to be multiple partner establishments, each staffed by a group of GPs and a multidisciplinary team including nurses (many of whom are specialists in e.g. diabetes, paediatrics, etc.), physiotherapists, midwives and psychologists, providing a wide range of medical services. There are national guidelines for smoking, alcohol use, physical activity and diet; primary care staff are expected to counsel patients on these lifestyle habits and offer advice, support and referrals.

GPs, jointly with hospital, outpatient and social care staff, are also responsible for post-discharge care planning and developing care plans for rehabilitation and follow-on care. For patients requiring long-term care, responsibility for the patient is transferred to the municipality once a care plan has been developed. Responsibilities and arrangements for primary care in the context of long-term care for the elderly are variable.

Practice nurses and other (non-GP) practice staff play a significant role in frontline care delivery, and are often the first point of contact with the health care system. In 2009, there were 40 million primary care visits, corresponding to 4.3 visits per person (Anell et al., 2012). Of these, 14 million visits were with GPs, 1.5 per capita, compared with 2.67 visits with other practice staff, predominantly nurses. This shift of workload from GPs to other practice staff reflects developments in primary care elsewhere. For example, in England the proportion of consultations undertaken by practice nurses increased from 21% to 35% between 1995 and 2008 (Goodwin et al., 2011). Sweden was one of the first European countries to create nurse-led clinics for patients with long-term conditions, such as diabetes and heart failure (Masseria et al., 2009). Nurses also play a role in care co-ordination for chronically ill patients, and have a limited role in prescribing.

People with minor mental health problems are usually attended to in the primary care setting, either by a GP or by a psychologist or therapist.

Patients with serious mental health problems are referred on to specialist psychiatric care in hospital.

Historically, health care in Sweden was characterised by an under-provision of GPs and primary care facilities, low usage of primary care services, and long waits. Structural reforms in the hospital sector over the past decade, with a reconfiguration of hospitals into larger, specialised establishments, and an action plan in 2000 to strengthen primary care, have resulted in a more prominent role for primary care. With an expansion in GP numbers and primary care centres, and more care being delivered in the community, there has been a significant reduction in hospital numbers, beds and length of stay. Sweden now has significantly fewer hospital beds per 1 000 population (2.7) than the OECD average (5), and shorter lengths of hospital stay (5.7 and 7.2 days respectively) (OECD, 2013).

In an analysis of the input-output efficiency of primary care service delivery across 22 countries, Sweden was one of the few countries found to be efficient at turning both organisational structures (governance, economic conditions, workforce development) into care delivery processes (access, comprehensiveness, continuity, co-ordination), and processes into quality outcomes (prescribing, quality indicators) (Pelone et al., 2013).

Like other developed economies, Sweden's care system faces the double jeopardy of financial constraints combined with increasing care demands because of population ageing and rising public expectations. It is therefore imperative that primary care's role in preventing and managing ill health, and in care co-ordination, is strengthened, in order to further improve quality and reduce the use of hospital services. As a central, readily accessible, community-based care provider offering a comprehensive range of services by a multidisciplinary complement of skilled staff and operating from well-equipped facilities, primary care in Sweden fits the model that many countries aspire to. These attributes mean that it is potentially very well placed to play a frontline role in meeting the epidemiological and financial challenges that lie ahead.

Funding arrangements vary locally, but cost is not a significant barrier to access to primary care services for patients

Historically, health care spending in Sweden was characterised by a focus on hospital and specialist care, relative under-investment in primary care, and a shortage of GPs. Growth in health expenditure was contained for many years by budgetary controls, the application of cost-effective health care technology assessments, controls on the overall numbers of health personnel, and then the reconfiguration of services through restructuring of the hospital sector and expansion of primary and community care. Since the

1990s, in parallel with the hospital reforms, the government has moved to strengthen the role of primary care, including through increased investment and periodic supplementary grants to county councils to support, for example, the development of primary care, care for older people, psychiatric care, reduced waiting times, patient safety, cancer care and improved care co-ordination. The per capita cost for primary care in 2011 averaged SEK 3 580, corresponding to 17% of total health care costs (Swedish National Board of Health and Welfare and Swedish Association of Local Authorities and Regions, 2013). Expenditure on primary care varies between counties, in part due to differences in geographical conditions that impact on costs e.g. several sparsely populated counties have inpatient beds in primary care facilities.

Sweden's long tradition of self-government and devolved system of administration means that the organisation, funding, delivery and governance of services is largely determined locally and differs between councils and between municipalities. Primary care is funded through a mix of capitation payments, fee-for-service and user charges, with pay-for-performance payments playing a modest role. The relative contribution of these funding routes differs locally. For example, in Stockholm county council about 40% of the payment is based on capitation, 55% on variable fee-for-service, and 3% is performance-related. In other county councils, between 80-98% of the payment is based on capitation. The risk-adjusted formulas used for determining capitation payments also vary between counties, from simple formulas based on age and gender to more complex formulas incorporating health status, prior use of services and socio-economic need.

Although pay-for-performance payments constitute a relatively small component of overall funding for primary care, they are much sought after by councils and municipalities. Such schemes include government or locally funded incentives for attaining specified priorities. Examples of indicators used for performance-related payments include national waiting time targets, preventive services, patient experience, registration in national quality registers and efficiency (e.g. prescribing of generic drugs).

Capitation payments reportedly carry the risk of cherry-picking of patients, skimping, under-provision of care and cost-shifting. Fee-for-service payments, on the other hand, are said to provide little incentive to improve the quality of care and reduce use of services. The government's expectation is that the reforms in primary care – with their focus on promoting choice, competition and transparency, supported by performance-related incentives – will reduce these negative effects and improve the access, responsiveness, quality and value for money of services.

In Sweden user charges are levied for visits to physicians and for pharmaceuticals, but they are low relative to many countries and are subject to ceilings. Overall, out-of-pocket payments comprise 17.2% of total health expenditure, lower than the OECD average of 19.8% (*OECD Health Statistics 2013*). The fee for consulting a primary care physician varied between EUR 11-22 in 2011 and consultations with a nurse are free (Anell et al., 2012), a pricing structure that encourages the use of staff other than GPs and which could account in part for the greater use of practice staff relative to GPs described earlier. The national ceiling for out-of-pocket payments for health care visits within a year is EUR 122 annually. Co-payments for prescribed drugs are regulated by government and are uniform throughout the country. Patients pay the full cost of prescribed drugs up to EUR 122, after which the subsidy gradually increases to 100%. The maximum annual co-payment for prescribed drugs is EUR 244. With Sweden's legal and political commitment to universal access to health care for all residents, low user charges and minimal use of private health insurance, cost does not appear to be a major obstacle to accessing primary care.

A shortage of GPs and lack of formal professional development schemes could present obstacles in harnessing the full potential of primary care

There were about 5895 GPs in Sweden in 2010, a ratio of 0.63 per 1000 population (*OECD Health Statistics 2013*). This is a significant increase from about 2 000 GPs a decade ago, when access to primary care was constrained by limited capacity and a shortage of GPs, leading patients to rely more heavily on outpatient and specialist services. Even up to 2006, Sweden had fewer GPs and higher patient list sizes than many countries (Masseria et al., 2009).

The shift from hospital to community-based care has increased workloads on primary care and GPs, especially in caring for patients with complex conditions and reducing hospital admissions in an ageing population. An overall shortage of 1 000 primary care physicians is reported, including a shortage of specialists in geriatric care, and there are recruitment and retention problems in rural, sparsely populated areas. Sweden aims to increase GP numbers to reach a more favourable GP/population ratio, in order to safeguard the quality of care and maintain an acceptable working environment for primary care personnel. Such a shift would mirror, for example, trends in England, where the number of patients per (full-time equivalent) GP fell from 1 780 in 2001 to 1 562 in 2011, paralleled by a move towards larger practices employing more GPs and with larger list sizes (NHS Health and Social

Care Information Centre, 2012). Although there are inconsistencies in the various sources of information about GP numbers in Sweden, comparisons with some Nordic countries show that the number of inhabitants per physician in general practice in 2009 was higher in Sweden (1 563) than in Norway (868), Finland (981) and Denmark (1 063) (Nomesco, 2011). That said, international comparisons historically suggest that GP workloads in Sweden were low relative to many countries (Groenewegen et al., 2004; Boerma, 2004; Rae, 2005). Thus the evidence on GP numbers and their workloads is mixed, and it is unclear what the current position is.

Workforce data, including on GP numbers, are not centrally available in Sweden, as workforce planning and recruitment is largely determined locally by county councils. From the information available, it seems likely that Sweden will need more GPs if primary care is to take responsibility for an increasing share of care provision and co-ordination. A nursing shortage is also forecast, because of drop-out and retirement effects.

Swedish GPs are medical specialists in Family Medicine on the same level as other specialists. They undergo a medical training period of five years, followed by a 21-month training period in general medical care, and another five years of study if they decide to specialise. (The terms “general practitioner”, “family physician” and “district physician” vary locally, but all refer to specialists in general medicine within primary care.) Primary care staff, in both public and private health centres, are predominantly salaried employees.

After completing training, GPs can apply to the National Board of Health and Welfare (NBHW) for a licence to practise. Licences are not time-limited and GPs do not have to re-apply to keep their licence. As with other health care staff, there are no formal, national systems of continuous medical education and professional development for GPs and other primary care staff, or for recertification. Consistent with Sweden’s culture of local empowerment, trust and shared values, this agenda is not nationally mandated. The responsibility for continuing professional education for all employed medical staff rests with the employers, i.e. county councils, municipalities and private providers. It is unclear whether these ad hoc, local arrangements offer adequate opportunities for up-skilling GPs and other primary care staff, including in providing and co-ordinating care for the growing volume and complexity of physical and mental health needs of an ageing population.

Inadequate data on quality in primary care is an obstacle to improving the quality of services and care co-ordination

The information architecture for primary care is less well developed relative to the rest of the Swedish health sector, resulting in a dearth of comparative data on quality in primary care to effectively support functions such as benchmarking for quality improvement, quality assurance, patient choice, and care co-ordination. Although the Swedish health care sector has advanced IT systems, and 100% of primary care providers have electronic patient records, several different IT systems are in use and there is a lack of uniform information standards and classifications. County councils, regions and municipalities use different information systems and have adopted different IT solutions that are not always compatible across or even within county councils and levels of care.

As noted in Chapter 1, quality registers are the main source of information about health care quality in Sweden. While there is ample evidence of the use of quality registers for quality improvement in hospital and specialist care, there is less evidence of their application in primary care. In common with the way clinical audits have traditionally developed in many countries, quality registers in Sweden focus predominantly on hospital and specialist care. Eight of the 73 quality registers also cover services provided in primary care: dementia, diabetes, heart failure, chronic obstructive pulmonary disease (COPD), palliative care, slow-healing wounds, asthma and Senior Alert (for reducing falls, malnutrition, pressure ulcers). However, in general, coverage of providers and data completeness in quality registers is considerably poorer in primary care than for the hospital sector.

Although the government offers some financial incentives to county councils to encourage providers to register for data submission to the national registers, participation in the registers is voluntary and variable; consequently data coverage in primary care is incomplete. In part this is reportedly because staff find the add-on task of data collection and reporting for several quality registers burdensome, resulting in weak engagement by GPs. Coverage varies across the quality registers with some registers, for example in psychiatry, being very incomplete. Coverage of the dementia register is reported to be 50% of estimated incidence, and reporting by primary care units is 50%, although it is rising steadily. Even for quality registers with high overall participation rates, such as those for diabetes and cardiovascular disease, coverage in primary care can be significantly incomplete compared with data submission by hospitals (Swedish National Board of Health and Welfare and Swedish Association of Local Authorities and Regions, 2011).

The quality registers are also mainly vertical and disease-based, and therefore unsuitable for managing the growing prevalence of multi-morbidities. Evidence from the United Kingdom shows that 42% of patients registered in general practice have one or more long-term conditions, and 23% have multi-morbidities (Barnett et al., 2012). The focus of national guidelines and quality registers on specific conditions is not unique to Sweden; it reflects the global lack of evidence on quality standards for the management of patients with multiple, complex care needs. But it does highlight the need for alternative strategies and improved continuity of care for such groups of patients (Roland and Paddison, 2013), as discussed later in this chapter.

As quality registers are the main source of data on quality in Sweden, the overall consequence of these issues is inadequate information about quality in primary care. This may in part explain why there is less evidence of a culture and bottom-up led initiatives of using data for quality improvement in primary care, in contrast to hospital and specialist care where the use of quality registers for quality improvement is much better embedded. The government incentivises submission of data to quality registers, and grants for developing new registers for primary care are being introduced. But there is a way to go before comprehensive, robust data on quality becomes available for primary care in Sweden. An important exception to this is the annual patient survey (discussed in Section 2.3) that provides rich data on user experience in primary care at county council and provider level.

Finally, although information flows to the registers are mainly electronic, there is no common IT infrastructure for data collection across quality registers, reporting methods differ between registers, and some registers are still paper-based. Thus, although quality registers are a valuable source of information about the quality of care and make Sweden an international exemplar in this respect, data submission and compilation processes could be streamlined to reduce the burden of data collection on clinical staff.

The IT environment, with stand-alone systems and a lack of interoperability, does not adequately support co-ordination and the sharing of information and patient records across providers. As noted by Øvretveit et al., “clinical quality process and outcome data are needed for many different types of improvement, and current systems in Sweden and elsewhere do not support care co-ordination or allow data to be gathered to track how other changes might be impacting patient care” (Øvretveit et al., 2010). Another report also identified information systems and legal barriers to sharing patient information as barriers to co-operation by providers within and between health care and social services (Docteur and Coulter, 2012).

Increased transparency about quality and efficiency in health care is a priority for the Swedish Government. The publication since 2006 of the annual quality and efficiency reports, with population-based data for county councils, marked the beginning of this process. This is now being extended to the publication of data on provider performance to stimulate competition, improve responsiveness, support patient choice and provide accountability. Publication has also exposed variations in quality between regions and providers, and the scope for improvement. Transparency, reforms in primary care and the growing numbers of private providers have reinforced the need for quality data in primary care, so the climate is conducive for progress in this area.

There is no national system of accreditation or framework for quality assurance in primary care, which is primarily a responsibility of county councils

With its devolved system of administration, Sweden does not have a national, standardised system of accreditation for health care providers. In primary care, county councils define the accreditation criteria that incoming providers – including private providers – must meet before they become eligible for public funding.

A county council cannot prevent a practitioner from establishing a private practice; their regulatory power is restricted to controlling the public financing of private practitioners. The licensing of new private primary care providers eligible for public funding is based on compliance with stipulated conditions for accreditation, which focus on the minimum level of clinical competences required in primary care. The same requirements apply to both private and public providers. Since health care provision is decentralised to county councils, the conditions for accreditation vary across the country.

Quality assurance in primary care is also primarily a responsibility of the county councils. As with other health care providers, since 1 June 2013, the Health and Social Care Inspectorate plays an overarching inspection and supervisory role, but ongoing quality monitoring and assurance in primary care is largely undertaken by county councils. There are no national norms or standards against which the quality of primary care services is monitored, and how this function is performed varies locally. Data from the quality registers and locally available information from primary care providers are used by councils for monitoring quality. It is unclear how robust this process is, given the relative lack of data for primary care and that much of the focus of quality measurement and improvement is on inpatient and specialist care. Accreditation and public financing appear to be the main levers for quality assurance in primary care, with information playing a minimal role.

Clinical guidelines developed by the NBHW include recommendations for primary and community care. The county councils are responsible for implementing the guidelines, but the recommendations are not mandatory and the rigour with which they are implemented varies locally and between the recommendations. Adherence to the guidelines in primary care – as in other areas of health care – is monitored locally and some related indicators are reported in the publications by the Swedish Association of Local Authorities and Regions (SALAR) and the NBHW. No sanctions apply for non-compliance, although pay-for-performance incentives linked to evidence-based guidelines are used selectively and increasingly transparency is seen as a means of reducing variations in performance.

The government's assumption is that the primary care reforms introducing competition, plurality of providers, transparency and patient choice will drive improvement. There is some evidence supporting this view. An analysis of the association between the quality of GP practices in England and the degree of competition they face found that practices located close to other practices provide a higher quality of care than practices that lack local competitors (Pike, 2010). There is also evidence that patients choose practices offering higher quality of care (Santos et al., 2013). However, it is important for county councils to provide the necessary safeguards by having adequate governance and oversight arrangements in place for monitoring quality and care co-ordination, equity and value for money, and compliance with guidelines, and explicit rules for dealing with poorly performing providers. Policy options for a quality assurance system in primary care are discussed in Section 2.4

Quality assurance in primary care services is also an issue with home health care for people needing long-term care. With responsibility for home health moving from county councils to municipalities, the challenges will mount, as municipalities are smaller than county councils, and have fewer analytical skills and capacities for monitoring quality.

Primary care's role in care co-ordination needs greater clarification

In Sweden, the expectation by default has been that primary care will co-ordinate patient care, act as a guide, and take responsibility for health care in residential settings, including care homes for the elderly. However, no agency has formal responsibility overall for co-ordinating care for people accessing multiple care services across many care settings, including those provided separately by municipalities and county councils. Older people may receive health care from a variety of sources – county councils, municipalities or private providers – that do not always co-ordinate care with each other. The co-ordination role is sometimes undertaken by GPs or other primary staff, but patterns vary locally. Overall, care is better

organised at the point of hospital discharge, but there is no national system for co-ordinating complex care needs once patients are in the community. Co-ordination between acute/elective/primary care/home care, and between specialist psychiatric care and primary care, is reportedly weak.

Assessments for social care are undertaken by municipalities, and not always co-ordinated with health care. Patients needing nursing in assisted living environments can sometimes lose contact with their GPs and some care homes are served by multiple GPs. A survey undertaken by the Swedish Medical Association (SMA) suggests that primary care doctors providing nursing home care have concerns about, for example, care continuity, medication risks, inability to follow up outcomes of care decisions, poor information flow between nursing homes and hospitals, and the lack of clarity about who is co-ordinating care.

As noted in a recent OECD report on long-term care, integration between health and social care and care co-ordination for the elderly and those with complex care needs remains a significant challenge in Sweden, driven by the division of responsibilities between medical care provided by county councils, and social care, nursing and rehabilitation provided by the municipalities (OECD, 2013). Decentralisation can create diffusion of responsibility, and the separate administrative and legislative frameworks for health and social care funding and management can compromise initiatives to promote integration (Wadmann et al., 2009). County councils and municipalities are required to sign agreements to co-operate on the provision of elderly and psychiatric care, but the effectiveness of such agreements in terms of leading to partnership working is unclear. In order to improve health care for older people, and co-ordination between social services and health care, the government intends to make one governing body responsible for all home health care for older people. It is in the process of transferring home health care from county councils to the municipalities, with a view to making all municipalities in Sweden responsible for home health care by 2014.

The reforms in primary care introducing choice and competition have improved access to primary care but could impact negatively on care co-ordination

National policies supporting the development of primary care have seen a significant expansion in capacity and provider numbers over the past decade, particularly in recent years with the introduction of reforms promoting competition and choice of primary care provider. Since January 2010, following a change in the Health and Medical Services Act, choice of primary care provider and freedom of entry for private providers

that meet the accreditation standards set locally by county councils has become mandatory across Sweden. Several county councils had already implemented similar reforms prior to 2010, some offering choice of provider as early as the 1990s, although the entry of private providers is relatively recent. Over 200 private primary care providers have been established since the change in legislation, an increase of over 20%. Although public ownership of health centres is still the norm in many county councils, especially in rural and sparsely populated areas, the number of private providers increased significantly following the recent reforms. In some county councils they are significant players – in Stockholm, for example, about half of all primary care providers are private.

The reforms in primary care reflect the Swedish Government's wider agenda of using choice, competition and transparency of information about performance as a means of both empowering patients and improving the quality of health and social care services. Although there are no robust evaluations of the impact of the reforms, some positive impacts have been reported.

Despite the 2005 care guarantee of prompt access to primary care and a GP, supported by incentives to county councils since 2008 for meeting mandatory waiting targets, a shortage of primary care capacity and long waits has characterised the Swedish health care system for many years. The recent reforms are reported to have increased primary care capacity, reduced waiting times and improved access, including for low-income groups (Anell et al., 2012). The increase in primary care providers notwithstanding, relative shortages persist in rural areas because the expansion has occurred primarily in wealthier, urban and more densely populated areas. The reforms have also brought an increased focus on quality, efficiency and transparency, exemplified by the measurement and publication of information on performance to support patient choice (for example through the Open Comparisons website), and incentives to county councils and municipalities for quality improvement.

The government's expectation is that choice of provider, competition and transparency will enhance innovation within the sector. New forms of management, for example case and disease management programmes, are being developed in some county councils. But the extent to which the reforms will deliver on the goals of user-centered, well-co-ordinated care for older people and people with complex care needs is unclear.

Competition and choice mean that primary care's historical responsibility for population health in a geographically defined catchment area has been formally abandoned. This could potentially have negative consequences. For example: practice boundaries enable GPs to assess the

health care needs of their registered patients so that local services can be planned most effectively; a geographically defined GP practice catchment population is useful for fostering join-up between other community health services (such as district nursing and mental health) and social care locally; and care, including emergency care and home visits, could become fragmented for patients registered out-of-area.

Feedback to the OECD team during its visit to Sweden was almost universally consistent that the reforms have not generally been conducive to improvements in care co-ordination, integration and continuity for elderly patients, people with complex care needs, stroke patients, those with cognitive impairment etc. (although thus far there is little hard evidence to this effect). It is also reported that for these groups of patients geographical proximity, continuity of interpersonal contacts with care professionals, and well-co-ordinated, integrated care are the priorities, and navigating the care system and exercising informed choice is a challenge (Docteur and Coulter, 2012). Finally, the dearth of information about quality in primary care reportedly makes it difficult to make an informed choice even when patients are able to exercise choice.

In 2012 the government launched an inquiry to examine the impact on quality, costs, efficiency, users and providers of the 2008 act relating to choice in public services. A review of the impact of the primary care reforms on access, quality, cost, care co-ordination and user experience would be timely and can inform future policy development in this area.

2.3. Quality and outcomes of primary care in Sweden

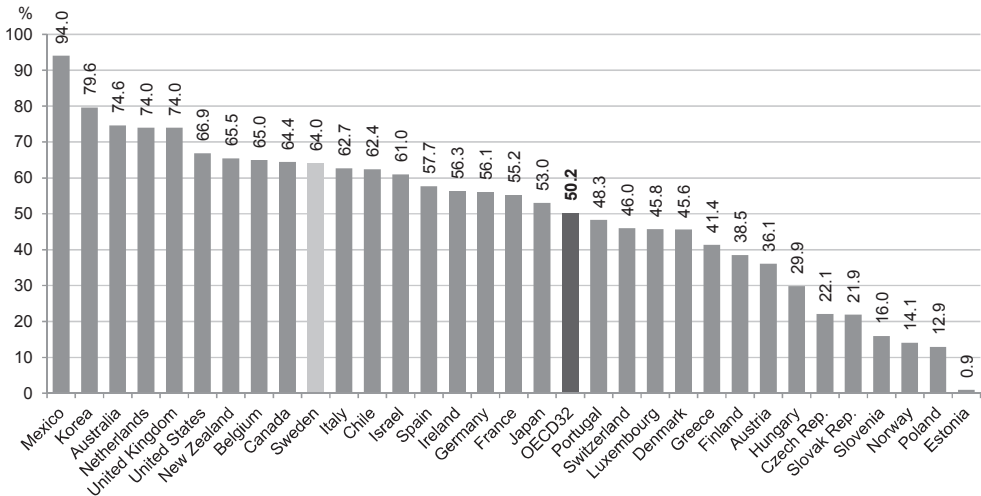
The contribution of primary care is reflected in the excellent health status indicators for Sweden

Health care, in which primary care is a key component, plays a key role in determining population health and the rate at which it improves. As shown in Chapter 1, Sweden compares very favourably with other countries on many health status indicators that are widely recognised as reflecting the quality of health care, amongst other determinants. For example, public health programmes and primary care play a key role in shaping health-related behaviours such as tobacco use, alcohol consumption and diet. In Sweden, smoking prevalence (13.1%) and alcohol consumption defined as litres per capita (7.4%) are among the lowest in the OECD (averages of 20.9% and 9.4% respectively), and self-reported obesity (11%) is also well below the OECD average (17.6%) (*OECD Health Statistics 2013*).

The performance of prevention programmes overall also compares well. Childhood immunisation rates are high relative to other countries and, at

2.1 per 1 000 live births, Sweden's infant mortality rate is among the lowest in the OECD (average of 4.1). Flu vaccination in the Swedish population aged 65+ (64%) is higher than the OECD average (50.2%), however, as shown in Figure 2.1, it is below the rates in some other countries.

Figure 2.1. Influenza vaccination coverage, population aged 65 and over, 2011 or nearest year

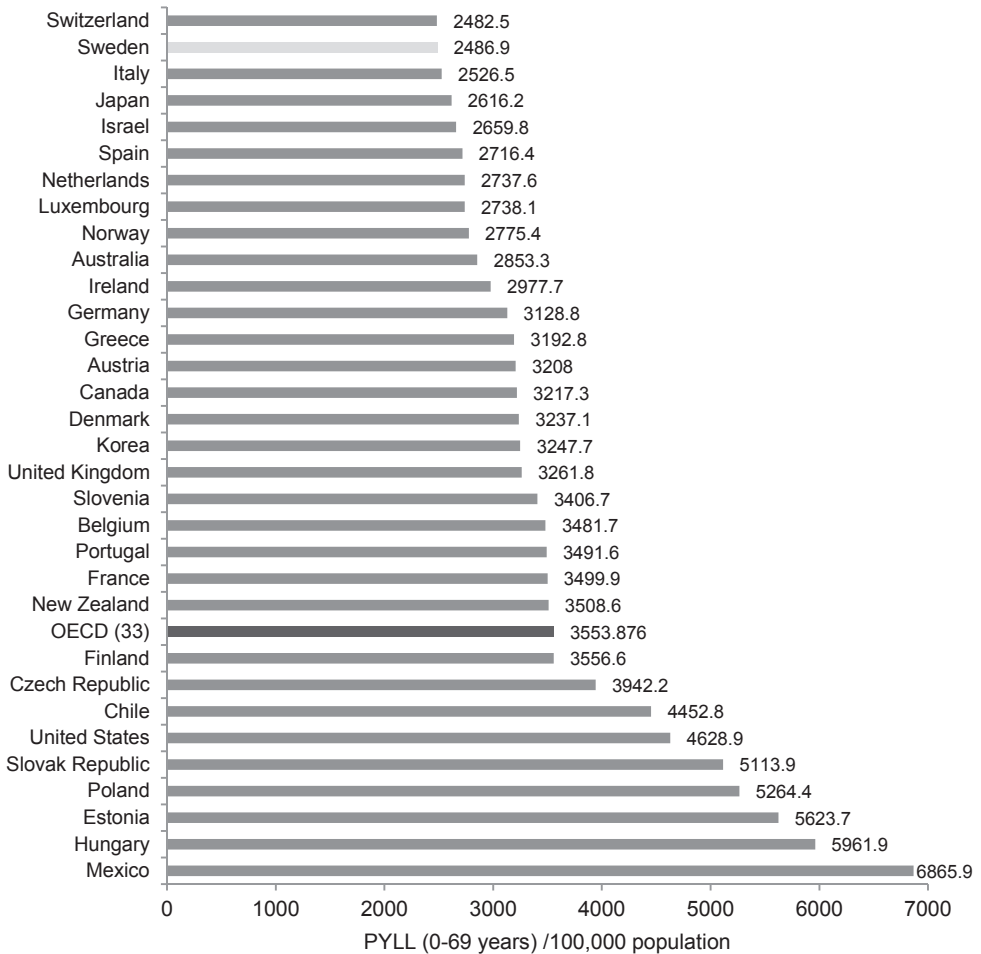


Source: OECD (2013), *Health at a Glance 2013 – OECD Indicators*, OECD Publishing, Paris http://dx.doi.org/10.1787/health_glance-2013-en.

As Figure 2.2 shows, premature mortality in Sweden, measured as potential years of life lost (PYLL) before age 70, is among the lowest in OECD countries. Mortality amenable to medical intervention is a significant contributor to premature mortality, accounting for about one-quarter of total mortality under age 75 in high-income countries; in international comparisons of amenable mortality, Sweden consistently ranks among the best (Nolte and McKee, 2011).

International comparisons also show that survival rates for lung, colorectal, breast and ovarian cancers are generally higher in Sweden, Australia and Canada than in Norway, Denmark and the United Kingdom (Coleman et al., 2011). Screening and 5 year relative survival rates for cervical cancer, and survival rates for breast cancer, are among the highest in the OECD, although Sweden's relative survival rate for cervical cancer (68.4%) is lower than the rate for Norway (71.4%) and Korea (76.8%).

Figure 2.2. Potential years of life lost (PYLL), 0-69 years, males and females, 2010 or nearest year

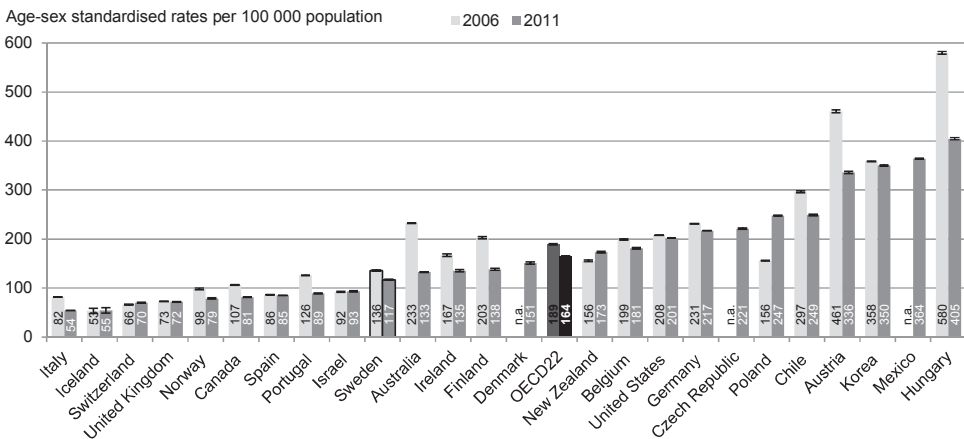


Source: OECD (2011), *Health at a Glance 2011 – OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2011-en.

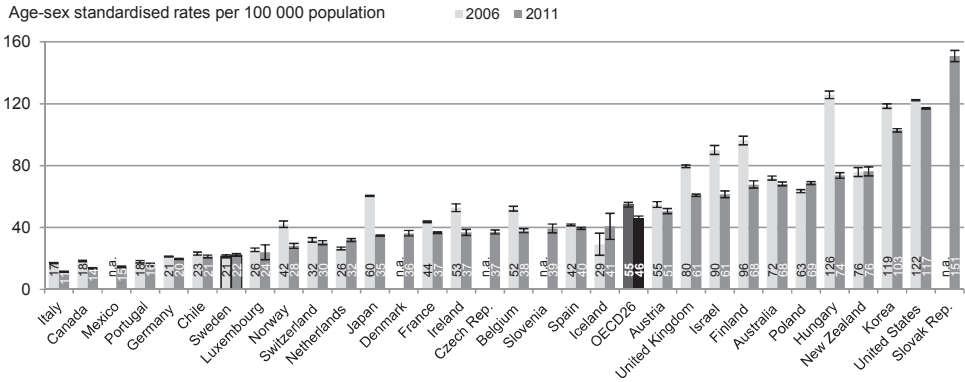
Hospital admission rates for conditions considered to be manageable in primary care show a more mixed picture

Some hospital admissions and readmissions are potentially preventable through better management and care co-ordination in primary care, and are associated with sub-optimal patient outcomes and avoidable costs of care. For example, chronic conditions like asthma and chronic obstructive pulmonary disease (COPD) are manageable through appropriate interventions in primary care, which can reduce exacerbation and costly hospitalisation. Hospital admission rates for such conditions are widely used as a proxy for primary care quality, as high rates may point to structural constraints such as an inadequate supply of primary care doctors, or poor care continuity and care co-ordination. As Figure 2.4 shows, Sweden's admission rate for asthma (22.2 per 100 000 population) is among the lowest in the OECD (average 45.8). Its admission rate for COPD (168.8 per 100 000 population) is also lower than the OECD average (203), although higher than for some other countries (e.g. Portugal 70.5, France) (see Figure 2.5). Sweden compares well with other OECD countries on diabetes hospital admission in adults with a reported age-sex standardised rate of 116.9 (see Figure 2.3).

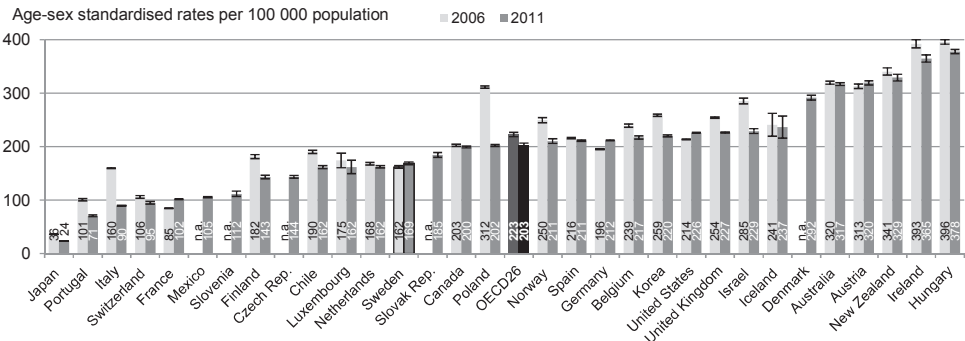
Figure 2.3. Diabetes hospital admission in adults, 2006 and 2011 or nearest year



Source: OECD Health Statistics 2013, OECD Publishing, Paris, <http://dx.doi.org/10.1787/health-data-en>.

Figure 2.4. Asthma hospital admission in adults, 2006 and 2011 or nearest year

Source: OECD Health Statistics 2013, OECD Publishing, Paris, <http://dx.doi.org/10.1787/health-data-en>.

Figure 2.5. COPD hospital admission in adults, 2006 and 2011 or nearest year

Source: OECD Health Statistics 2013, OECD Publishing, Paris, <http://dx.doi.org/10.1787/health-data-en>.

Regional variations in the quality of primary care show the potential for improvement including in secondary prevention

Sweden's very favourable standing in international comparisons of health status and health care quality masks some variations in the quality of primary care between regions and population sub-groups. These are described in the annual reports on quality and efficiency in Swedish health care, the aim of which is to improve quality overall by reducing such variations where they are avoidable (Swedish National Board of Health and Welfare and Swedish Association of Local Authorities and Regions, 2011;

Swedish National Board of Health and Welfare and Swedish Association of Local Authorities and Regions, 2013). Some regional variations are inevitable and unavoidable, reflecting differences in, for example, risk factors, disease prevalence and case-mix. Although most indicators have improved over time, the data show the potential for improvements in primary care, including through reducing unwarranted regional variations.

Illustrations of such variations in the latest report published in 2013 are given below. The report comes with a caveat about data quality as participation rates in the quality registers, from which many of the indicators are derived, vary. It also notes that internationally comparable data are not generally available for these indicators.

In terms of prevention, Sweden compares favourably with other countries across a range of indicators. For example, MMR vaccination rates are high and show little regional variation at 97-98% in all counties. Sweden's cervical cancer screening rate compares favourably with other OECD countries, however, the national average of 80% conceals county level variations ranging between 65-92%, with counties with low participation rates generally having a higher incidence of cervical cancer than those with high participation rates.

The Swedish NBHW published new diabetes care guidelines in 2010. The indicators used to monitor the quality of diabetes care are consistent with the recommendations of the guidelines. Data from the national diabetes quality register, covering both primary and hospital care, are used for reporting purposes. Although overall participation in the register has improved in recent years to an overall rate of 85%, coverage is much better in hospitals than in primary care and there are wide variations between counties. The data show that diabetes is under-treated and there is a need for improved compliance with the guidelines and follow-up of treatment. For example:

- ∞ In 2011 about half of diabetes patients aged under 80 years met the HbA1C goal, 78% were below the upper limit, and 9% showed very poor blood glucose control. The average HbA1c for primary care patients has not changed in recent years and improvements appear unlikely unless clinical practice is modified.
- ∞ The mean blood pressure level in diabetic patients has declined steadily in recent years. The proportion reaching the blood pressure goal of <130/80 mm Hg was 23% in 2011, with a two-fold variation between counties. The proportion with blood pressure lower than 140/80 mm Hg was about 61%. The results point to under-treatment and the potential for improvement in all regions.

- ∞ The use of lipid lowering therapies has increased over the years, leading to improved lipid control. However, there is scope for improvement, as only 46% of diabetic patients under age 80 achieved the LDL cholesterol goal, with county level variations of between 36-58%.

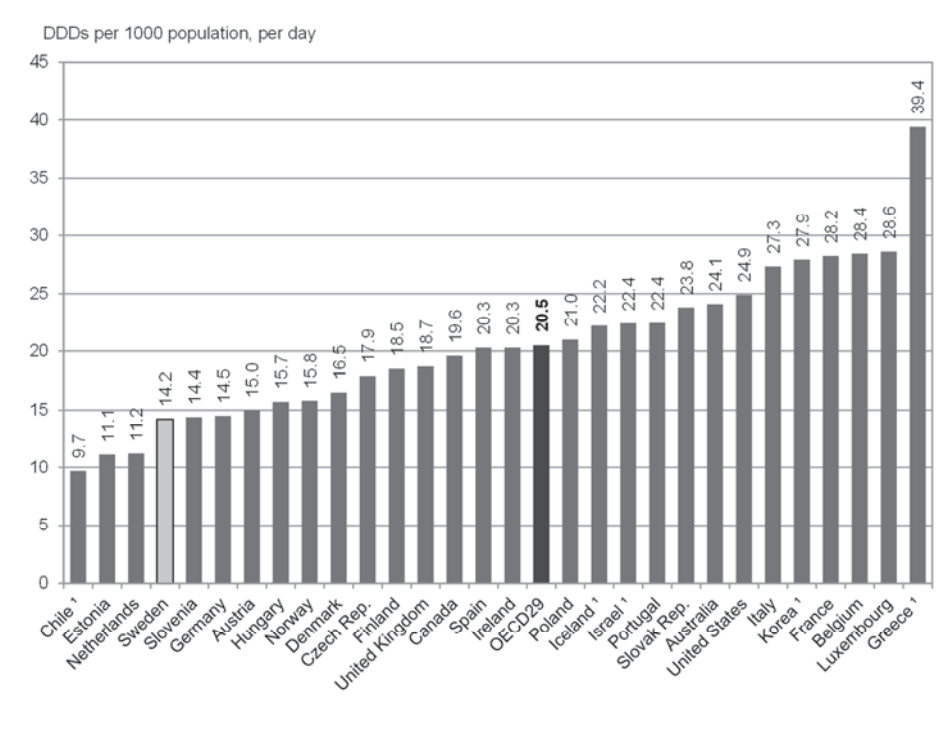
Cardiovascular disease (CVD) is the commonest cause of death in Sweden. On several indicators for stroke and acute myocardial infarction, treatment in line with guidelines and outcomes have improved significantly. However, there is potential for improvement in secondary prevention for CVD in primary care. For example, about 8% of 80 000 first episode stroke patients in 2006-10 were readmitted for stroke within 365 days of their initial episode, with county readmission rates varying between 5-10%. Hospital readmissions among stroke patients provide an indication of the efficacy of secondary prevention after stroke. Subject to contra-indications, anticoagulant therapy for stroke patients with atrial fibrillation is a high-priority therapy in the national stroke guidelines to prevent a recurrence; in 2009-10 two-thirds (67%) of such patients were given anticoagulant therapy in the 12-18 months after discharge from hospital, with large regional variations. Likewise, treatment with statins for secondary prevention after cerebral infarction is recommended in the guidelines; 71% of patients were prescribed statins within 12-18 months after discharge, with most counties needing to be more compliant with the guidelines.

The Swedish Council on Technology Assessment in Health Care and the Medical Products Agency have shown that preventive drug therapy (with bisphosphonates or hormones) for older people with osteoporosis and fractures reduces the risk of additional fractures. Thus, it is important to assess whether osteoporosis is diagnosed and treated after older women receive care for a fracture. In 2009-11, 14% of women nationally had been treated, with inter-county variations of between 7-22%, suggesting that not all care providers and county councils are applying the national guidelines. The Senior Alert Quality Register can be a useful basis for targeting preventive interventions.

Some of the observed regional variations in prescribing patterns may be unwarranted, with potential for improvements in line with evidence on good practice. For example, long-term use of benzodiazepines, prescribed most often by GPs, and also by psychiatrists, can cause adverse effects and they should not be prescribed routinely. Use of benzodiazepines varied by almost 75% between counties in 2011; it is unclear whether this is due to differences in clinical practice or other factors. Similarly, rates of poly-pharmacy among older people vary from 10-14% between counties, and the proportion of older people using three or more psycho-pharmacological drugs concurrently varies almost two-fold.

On the other hand, trends in antibiotics prescribing are encouraging. Consumption of antibiotics is correlated with the spread of resistant bacterial strains, hence there is an international drive to limit their use. Antibiotics prescribing in Sweden has declined over time, although the variation in prescribing rates between counties in 2011 was about 40%. Nonetheless, as shown in Figure 2.6, Sweden's rate of overall antibiotic prescribing in primary care is among the lowest in the OECD; in common with other Nordic countries, it also has among the lowest prescribing rates for broad spectrum antibiotics.

Figure 2.6. Overall volume of antibiotics prescribed, 2010 or nearest year



1. Data refer to all sectors (not only primary care).

Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>; IMS for United States.

Hospital admissions for selected acute and chronic conditions that are potentially avoidable through timely and effective primary and community care, using the Swedish definition, declined between 2006 and 2011, but they still account for about a million bed days annually. Regional variations

of almost 40% show the potential for improvements in primary care. Avoidable hospital admission rates in 2011 for medical care for people previously (2006-10) admitted with a psychiatric diagnosis are four times higher than among the general population. While this reflects international evidence about higher physical morbidity among people with mental health problems, it also illustrates the potential for improved physical care for this group of patients in primary care.

Deaths that are potentially avoidable through early detection and treatment, one of the NBHW's indicators based on diagnoses of diabetes, appendicitis, stroke, gallstone disease and cervical cancer, show a greater than 50% variation between counties. Although mortality has declined for all groups over the past decade, significant differences by educational status persist.

Equitable, universal and needs-based access to health care is legally enshrined in Sweden. While Sweden has among the best health status indicators internationally, the publication of performance data shows socio-economic inequalities in the quality of care. Those with the least education have higher mortality rates and a greater incidence of avoidable hospitalisation. For example, survival rates for breast cancer are lower in women with low education, and rates of potentially avoidable hospital admission and amenable mortality are about double among people with lower educational status compared to those with higher education. This is illustrative of other differences in health status and outcomes between socio-economic groups. A strategy for managing geographical and socio-economic health inequalities is under development by the government.

Overall, Swedish people are satisfied with the quality of primary care but access to services and care co-ordination need to improve

Data on perceptions among the general population about the availability and reliability of health care services are available from the annual health care survey introduced in 2001. This is supplemented by data on patients' experience of using primary care services from the national patient survey programme, introduced in 2009 and co-ordinated by SALAR. These surveys provide valuable benchmarking data on feedback from users of primary care services, down to county council and practice level. These data can inform quality improvement initiatives in primary care and monitoring of trends over time.

Sweden's population-based surveys show a higher level of confidence in hospitals than in primary care. In 2011, 64% of the population reported having confidence in primary care, varying from 59-75% between counties, compared with 71% reporting they had confidence in their hospitals

(Swedish National Board of Health and Welfare and Swedish Association of Local Authorities and Regions, 2013). While 12% of respondents said they had little confidence in primary care, the corresponding figure for hospital care was 7%.

However, satisfaction levels were significantly more positive among users of primary care users, and were on a par with responses from users of specialist and hospital care. In the 2011 survey of primary care patients, 90% of respondents said they were treated with respect and consideration by staff, 78% said they had received sufficient information about their condition, and 78% said they had participated in care and treatment decisions. Variations between counties were relatively small, but variations at clinic level are larger.

Sweden compares well in international comparisons of user experience, although not in all areas, notably access. In an industry-sponsored pan-European survey covering 42 indicators across five domains of the performance of national health care systems from a user/consumer viewpoint, Sweden had the sixth highest ranking overall among 34 countries (Björnberg, 2012). While Sweden performed well in many areas, outstandingly so on health outcomes, it compared less favourably on access, including same day access to a primary care doctor. In a 2012 survey of primary care doctors across 11 countries, the proportion saying all patients could get a same or next day appointment was significantly lower in Sweden (28%) than in several countries (e.g. France 86%, Switzerland 62%, Netherlands 61%) (Commonwealth Fund, 2012). The proportion responding that practices had after-hours arrangements for patients was also lower in Sweden (67%) than, for example, in the United Kingdom, Netherlands and New Zealand (90% or higher).

Given the historical problem of long waits, Sweden has national care guarantees with specific waiting time targets. For primary care, the targets are that a patient should be able to contact primary care immediately and get an appointment with a primary care doctor within seven days. Official data for March 2012 show that the seven day target was met for 93% of patients, with regional variations of 83-98%, although patient-reported perceptions of availability are lower at about 81%. Access to primary care has improved significantly over time, and is reportedly improving further with the reforms underway, but waits for both primary and specialist care are still an issue in the Swedish health care system.

Feedback from primary care doctors and patients indicates that care co-ordination in Sweden lags behind other countries. In a 2012 survey of primary care doctors across 11 countries, the proportion responding that the practice uses nurse case managers or navigators for patients with serious

chronic conditions was second lowest in Sweden at 41%, compared with 78% in the United Kingdom and 73% in Netherlands (Commonwealth Fund, 2012). The proportion saying the primary care doctor receives needed information to manage the patient within 48 hours of discharge from hospital was also among the lowest in Sweden (21% compared with 67% in Germany for example). A 2011 survey across 11 countries of adults with complex health care needs found longer waiting times in Sweden, difficulty in accessing after-hours care and higher use of emergency services, and patient engagement in care management for chronic conditions was weakest in Sweden (Schoen and Osborn, 2011). However, the proportion reporting cost as a barrier to access was lowest in Sweden and the United Kingdom. The study concluded that patients who are engaged in their own health care receive higher-quality care, experience fewer medical errors, and have more positive views of the health system.

A report on patient-centeredness in Swedish health care reported that, while Sweden has made good progress in strengthening legislation pertaining to information and education for patients, gaps and regional variations are evident in these areas, and the health care system is inadequately responsive to patients' needs (Docteur and Coulter, 2012). For instance, patient surveys in both primary care and inpatient specialised care show that doctors sometimes fail to tell patients about the side effects of their medicines and warning-signs about their condition to watch out for. Based both on international comparisons and domestic patient surveys, the report identified inadequate care co-ordination as a weakness in Sweden's health care system, particularly in relation to specific groups such as psychiatric patients and the sickest elderly. The barriers to co-ordinated care identified are reimbursement systems, vertical organisation of health care that makes it difficult to co-ordinate care processes horizontally, and lack of assistance for patients in negotiating their way through services involving multiple providers, as in care for patients with complex conditions or post-hospital rehabilitation care. Taken together, these findings support other evidence that primary care's role in care co-ordination in Sweden needs to be strengthened.

2.4. Maximising primary care's contribution to high quality, co-ordinated care in Sweden

The role of primary care in improving quality and reducing the disease burden has potential for improvement

Primary care is regarded as uniquely well placed not just to provide medical care, but also to promote the health and wellbeing of the practice population (Thorlby, 2013; Goodwin et al., 2011). International evidence

also shows that health care systems with a stronger primary care focus are likely to deliver better chronic care management. With its wide population coverage, highly accessed services, and strong generalist tradition, primary care in Sweden is uniquely well placed to capitalise on its knowledge of patients and their local contexts, gained from repeat contacts over extended periods of time. Exploiting this potential in a more proactive approach to improving population health and wellbeing can help to contain the rising rates of chronic disease in an ageing population. These attributes of Sweden's well-developed primary care sector also put it in a strong position to improve the management of chronic disease and its sequelae.

Sweden's highly skilled primary care sector has contributed to impressive improvements in quality and outcomes, and to shifting the use of services away from hospital care to primary and community services. There is potential for further improvement. Regional variations in performance and other evidence suggest that there is scope for deploying the skill base of primary care teams more effectively to improve quality, address primary and secondary prevention, and reduce the use of hospital and specialist care further.

Hypertension, tobacco, alcohol misuse, obesity and low physical activity are the leading risk factors for illness and disability in western Europe but are amenable to intervention at national and local levels, including through health services. Although the primary prevention role of Swedish primary care encompasses advice and support to patients on lifestyle habits, it is unclear how effective these interventions are. The NBHW acknowledges that the recommendations add to cost and workloads, in primary care and there is a need for skills development and training. Furthermore, GPs may consider that population health is not their responsibility and may be reluctant to take on the added workload of counselling on lifestyle issues. While Sweden's immunisation and screening rates are high and compare well with EU countries, primary prevention, health education, case-finding and early diagnosis are key roles for primary care.

Enhancing primary care's role in primary prevention requires more proactive deployment of staff for delivering these functions and better use of data and risk stratification tools. Policy makers may also want to consider adapting payment systems and contracts to encourage a focus on population health, including through strategic alliances between primary care and other local agencies to tackle risk factors for ill health.

There is potential for improvement in primary care's management of chronic disease and secondary prevention, which could improve patient outcomes and reduce care costs. A study of the use of evidence-based practices and computer systems for managing chronic illness in Swedish

primary health care found variations in and under-use of evidence-based care management practices and of IT for managing asthma, heart disease, diabetes and depression (Øvretveit et al., 2008). Other research also shows that adherence to guidelines and treatment for asthma shows room for improvement (Ingemansson et al., 2012; Weidinger et al., 2009). The need for better compliance with guidelines and structured programmes for COPD care has been reported, and that larger centres and use of specialist nurses offer a better infrastructure for providing guideline-defined COPD care (Thorn et al, 2008, Löfdahl et al., 2010). Regional data for Sweden shows variations in the quality of primary care follow-up and secondary prevention for stroke patients, with anecdotal evidence suggesting stroke care on discharge from hospital can be fragmented. As noted in the chapter on stroke and hip fracture, secondary prevention in these areas can be strengthened. Guidelines for CVD and hypertension need to be better implemented, and management of these conditions improved (Carlsson et al., 2013; Neiburg and Kahan, 2010; Midlöv et al., 2008). There is evidence of under-provision of drug treatment for several major disease areas.

Data from SWEDEHEART show that only 17% of heart disease patients managed by hospital outpatient clinics achieve all four goals of blood pressure and cholesterol control, smoking cessation and participation in an exercise programme (RIKS-HIA, 2012). Although a very positive finding is that drug treatment regimens are largely in line with current guidelines, up to 50% of patients do not reach blood pressure and cholesterol targets one year after a myocardial infarction. SWEDEHEART notes that there has been little change in these secondary prevention measures in recent years, showing potential for improvement in the management of myocardial infarction patients. Given the poor data linkage with primary care, it is unclear how primary care is performing in secondary prevention of heart disease, and whether the impressive quality improvements seen in secondary care are matched in primary care.

Mental health is another area with potential for improvement. About 15% of men and 20% of women in Sweden rate their mental wellbeing as impaired in national surveys using GHQ-12, a validated instrument used internationally for measuring mental wellbeing, early detection and treatment. Primary care is generally the first point of contact, and is responsible for minor mental health problems and onward referrals to specialist care for those with serious mental illness. High quality primary care for mental health problems is especially important in rural areas where access to specialist services may be difficult. The prevalence of mental health problems is common, with one in three patients in primary care showing symptoms of depression, anxiety or alcohol problems (Nordström and Bodlund, 2008). Early identification, intervention and treatment in primary care is therefore important. GPs play a

crucial role in detecting and treating these common mental disorders, which often go under-diagnosed and untreated because many patients present with somatic symptoms (Wallerblad et al., 2012). Diagnosis and treatment of these disorders can be a challenge for GPs, and misclassifications (false positives and false negatives) are not uncommon. A survey in the four Scandinavian countries showed that misclassifications of major depressive episode were common in primary care patients, with GPs recognising the condition in 56-75% of cases (Ostergaard et al., 2010). Physical health care for people with mental health problems, access to psychological therapies and the interface with specialist mental health services are also areas for improvement in primary care.

The government's initiative for improving health and care services for the most fragile elderly, to which it has allocated EUR 500 million for 2011-14, includes dementia as one of the priority areas. The initiative includes pay-for-performance incentives to improve case-finding, early diagnosis and assessment for people with dementia. Although dementia care is a priority area supported by several government initiatives, it is recognised that the role of primary care in these areas needs to be strengthened and compliance with national guidelines can be improved. Dementia prevalence in Sweden (6.3% among people aged 60 years and over in 2009) is among the highest in the European Union (average 5.5%). Data from the dementia quality register show that the national dementia guideline goal of a diagnosis in primary care within 30 days is currently not met in any of the provinces, about 50% of patients in primary care undergo basic work up (somatic, functional, cognitive, psychological assessment, CT scan, etc.), 20% of dementia patients in nursing homes are treated with anti-psychotics, and quality of dementia care generally falls short of the seven quality indicators identified by the NBHW. Improvements in diagnosis, support and treatment for dementia could improve quality of life for patients and save public funds in the long term by reducing the need for care home places and unnecessary hospital admissions. An obstacle to early diagnosis may be GPs' capabilities in dementia care. Surveys in the United Kingdom suggest that many GPs feel they lack the training, confidence and time to deal with dementia.

The government offers incentive payments to county councils and municipalities for reducing avoidable admissions and readmissions within 30 days among people aged 65+. Although performance fell short of the goal of reducing readmissions by 10% within a year, most councils achieved reductions of 2-3% and some councils have moved to a proactive risk stratification approach to identify elderly patient with high care needs. Research suggests that a) only about a quarter of readmissions are deemed preventable (Joynt and Jha, 2012), which could be why reducing readmissions proves so intractable in many countries, and b) readmissions

are associated with admission rates, so incentivising reductions in hospital use generally may be more effective as a means of reducing readmissions (Epstein et al., 2011). This again points to primary care's role in effective prevention.

In summary, there is potential for primary care in Sweden to play a more proactive role in primary and secondary prevention, and the management of chronic disease, mental illness and multi-morbidities. Potential levers can be contractual mechanisms between county councils, municipalities and primary care requiring compliance with guidelines, supported by clearer standards and targeted incentives for primary and secondary prevention. Sweden's skilled primary care workforce has the potential for an increased role for nurses and allied health personnel, especially in managing patients with chronic disease. Improved data collection and greater use of quality indicators in primary care will also support progress towards the goals outlined. Finally, the policy environment should promote primary care's role in improving population health.

Enhancing the role of primary care in care co-ordination

The reforms in primary care should actively promote care continuity and co-ordination

Care continuity and care co-ordination is important for people with higher care needs, such as those with chronic conditions and older people, who often need both medical and social care and long-term follow-up. Since patients in many countries enter the health care system via primary care, and retain contact with it through their care journey, the role of primary care is widely seen as critical to improving care co-ordination (Masseria et al., 2009). A systematic review to identify the core dimensions of primary care noted that continuity and co-ordination of care are among the ten elements of primary care as a multi-dimensional system, contributing to improved quality, outcomes, patient satisfaction and efficiency (Kringos et al., 2010). Countries with a gate-keeping model of primary care are better positioned to provide care continuity and co-ordination.

As primary care is generally the point of entry into Sweden's health care system, organised in multidisciplinary teams and involved in post-discharge planning, and satisfaction levels with it are high, it is potentially well placed to play a strong, proactive role in care co-ordination. The evidence cited in this chapter shows that care co-ordination is a relative weakness in Sweden's otherwise strong health and social care system. Although many countries struggle to provide well co-ordinated, patient-centered care, Sweden compares relatively unfavourably on international surveys of

patients and doctors in these areas. It is important therefore that the reforms are structured to foster co-ordination rather than fragment care further.

The reforms in Sweden focus on user choice, competition and a diversity of providers. Such policies do not of themselves facilitate co-ordination, and can present real or perceived barriers to integration. Choice and competition in primary care, and the resulting loss of a geographical responsibility for population health, have the potential to exacerbate fragmentation of care and impede the ability of local agencies to work together to provide seamless health and social care in the most cost-effective way – especially in urban areas with a multiplicity of providers. The risks of fragmentation and poor care co-ordination are greatest for older people, complex and frail patients, and people with mental health problems; these are also the groups least able to navigate the system and exercise informed choice, hence they can be disenfranchised from the reform process.

However, these policies need not pose insurmountable barriers to better care co-ordination so long as competition and a plurality of providers do not mitigate against collaborative partnerships and integration, and are not perceived to be counter to these goals. Many health care systems share the Swedish goal of empowering patients to exercise informed choice, and there is evidence that geographical monopolies can stifle innovation and that competition in primary care drives quality. An empirical analysis of the relationship between the quality of GP practices in England and the degree of competition they face shows that practices located close to other practices provide a higher quality of care than practices that lack competitors (Pike, 2010). Moreover, recent research shows that patients are more likely to choose practices which earned more quality points under the Quality and Outcomes Framework (QOF) pay-for-performance scheme; a necessary condition for greater competition to improve quality is that patients' choice of practice is influenced by practice quality (Santos et al., 2013).

Polarised distinctions between the merits and flaws of competition and integration no longer hold, and many health care systems subscribe to the importance and place of both in delivering high quality, cost-effective care. Several commentators note that integrated health care and choice can be reconciled if patients are able to choose between integrated health care arrangements and networks, and not between narrowly defined components of service (Ahgren, 2010; Ham, 2012; Hawkins, 2011; Ham and Curry, 2010). The competition and privatisation reforms can be designed to promote care continuity and co-ordination, including through appropriate payment mechanisms, and these principles should be embedded in the regulation of how these policies are implemented in practice. Strategies for progress towards these goals are discussed below.

Sweden's model of primary care lends itself to better care co-ordination

Sweden's model of large, multidisciplinary primary care teams and specialist nurses is conducive to collaboration and greater use of practice staff than health care systems with a preponderance of small or solo practices, as in Denmark. Evidence suggests that co-location in multidisciplinary health centres facilitates collaboration and integration, and ensures more efficient use of resources and competencies (Reed et al., 2005). Multidisciplinary practice teams, with clinical, IT and other support infrastructures, are able to provide a wider range of services for meeting chronic care needs on a co-ordinated basis (Goodwin et al., 2011), and are better able to implement the chronic care model and other models of integrated care than smaller practices (Hofmarcher et al., 2007; Lieshout et al., 2011; Friedberg et al., 2009; Wensing et al., 2006). Several national studies of the influence of practice size on care processes and outcomes show that larger practices perform better in terms of the range and quality of services and safety management (Wensing et al., 2006; Gaal et al., 2010; Friedberg et al., 2009; Campbell et al., 2001), although smaller practices are associated with higher patient satisfaction (Glenngard, 2012).

Two widely accepted frameworks for the organisation of chronic care and prevention are the chronic care model (CCM) and the patient-centered medical home (PCMH) (Lieshout et al., 2011). The CCM seeks to co-ordinate activities within primary care by fostering productive interactions between trained proactive care teams and well-informed, motivated patients. There is evidence from the United States and Europe that the CCM improves patient care and health outcomes for patients with chronic illnesses (Coleman et al., 2009). The PCMH model combines traditional primary care core values such as continuity, co-ordination, and comprehensiveness, and is predicated on patients having enhanced access to a personal physician.

The 2011 Commonwealth Fund survey of patients with complex care needs found that care is often poorly co-ordinated in the 11 countries surveyed (Schoen et al., 2011). However, adults seen at primary practices with the attributes of a PCMH – where clinicians are accessible, know patients' medical history, and help co-ordinate care – rated their care higher and were less likely to experience co-ordination gaps or report medical errors. The conclusion supports the need for redesigning primary care, developing care teams accountable across sites of care, and managing transitions well. To support this evolution, general practice needs to see itself as the hub of a wider system of care, with responsibility for co-ordination and signposting, including to services beyond health care

(Goodwin et al., 2011). Primary care is at the centre of the care system in Sweden, and well positioned and qualified to take on such a role.

Frameworks such as CCM and PCMH can have locally distinctive applications, and lend themselves to adaptation in Sweden's devolved health care system. Sweden's decentralisation form of government means that local organisations have the levers to innovate and promote collaboration and co-ordination, for example, through economic incentives and regulation. Disease management programmes can also improve communication between providers and benefit patients. New forms of management, for example case and disease management programmes, are already being developed in some Swedish county councils. They are growing in importance across many countries, although their disease-specific focus does not address the issue of multi-morbidities.

Moving to a gate-keeping role for primary care, with universal registration with a practice, would appear to be a necessary pre-requisite if primary care in Sweden is to undertake the lead responsibility for care co-ordination. Without this, it is not practical for primary care to have a comprehensive over-view of the care received by individual patients, and to ensure that all patients have this cover. It will also better enable primary care staff to monitor patients with chronic or complex conditions, make referrals as needed, and co-ordinate their care across different services. The SMA notes that the weak interface between community and home-based care results in some patients being rushed to hospital needlessly, and should be addressed via defined catchment areas for primary care and the registration of care home residents with a named doctor, nurse, specialist or practice responsible for providing continuous, holistic and proactive care.

Improving primary care's role in care co-ordination requires strategies for tackling the barriers to co-ordination and promoting new ways of working

Strategies for improving care co-ordination need to address the potential obstacles and create an environment that fosters different ways of working. This must start with a clear articulation of Sweden's vision for the future of its primary care system, which defines the roles envisaged for primary care, the workforce complement and skills needed to deliver those functions, and the organisational developments needed to achieve identified goals. The vision should define also the role of primary care in co-ordinating care in a modern Swedish health care system. An example is the recent report by United Kingdom's Royal College of General Practitioners, which outlines the model of general practice and roles of GPs and other primary care staff envisaged for 2022 (Royal College of General Practitioners, 2013). The

vision is for a comprehensive, accessible, high quality service, provided by a skilled, resilient, adaptable, multidisciplinary workforce that delivers health promotion and disease prevention strategies to local populations, manages multi-morbidity and co-ordinates complex care across boundaries. GPs in 2022 are seen as the “expert generalists”, needing to have an understanding of generalist care and also high-level skills to manage complex patients with chronic medical conditions and to deal with poly-pharmacy. It will be important for such a national vision for primary care in Sweden to be shared by SALAR, county councils, municipalities and leaders in primary care.

A common theme in the literature is that improving care co-ordination and integration also requires leadership, change management capacity, cultural change, and a breaking down of occupational barriers and fear of loss of professional autonomy. It requires action to ensure that the policy environment, regulation and governance structures, reimbursement and incentive systems, and information infrastructure are conducive to change, and there are effective dissemination routes for the spread of good practice. Integrated, community-based care also requires investment in primary care.

Investing in primary care

Policies oriented towards a shift of demand from hospital care to ambulatory care increase the pressures on primary care. The Swedish Government is investing EUR 500 million during 2011-14 to improve health and social care for the most fragile elderly, including for strengthening incentives to councils and municipalities for achieving pre-specified goals in preventive, dementia and palliative care, better use of medication and better care co-ordination. However, Swedish data show that primary care costs per year of age increase minimally into older ages compared with inpatient costs, which may indicate under-provision for primary care relative to secondary care. An appropriate balance of resources between ambulatory care and inpatient care is important for ensuring that the primary care sector is able to manage and co-ordinate the complex care needs of people with chronic conditions and co-morbidities. Redirecting resources to primary care can strengthen access to preventive care, improve chronic disease management and care co-ordination services, and reduce or delay the complications of chronic disease. Investment in primary and community care services is therefore a pre-requisite for general practice to operate on scale as the hub of a wider system of care that takes responsibility for care co-ordination and sign-posting people through the health and social care system.

Payment systems

Reimbursement systems can be an obstacle to care continuity and co-ordination. Fee-for-service and capitation funding models do little to promote quality of care, partnership working and care co-ordination for people with long-term conditions or the frail elderly. The Swedish Government gives grants to promote co-ordination, but a comparison of co-ordination between primary and secondary health care in Denmark and Sweden shows that in both countries economic incentives for collaboration are weak, and use of sanctions as a regulatory means is lacking (Wadmann et al., 2009).

Provider contracts should be formulated to provide incentives for better co-ordination, specifically, to include services that enhance care co-ordination, and reimbursement arrangements need to align incentives appropriately. An increasing number of countries are offering financial incentives for providers to co-ordinate care, with explicit payments for care co-ordination at primary care level (Masseria et al., 2009). Bundled provider payment currencies are also increasingly being adopted. An OECD review showed that countries have begun to restructure incentives for ambulatory care providers, or developed other incentives, accompanied by regulatory changes, to break down barriers between sectors and stimulate co-operation across providers (Hofmarcher et al., 2007). The OECD noted that the difficulties faced by many countries in co-ordinating care across interfaces may in part reflect the split responsibility for health and for long-term care across government departments, and it requires broader, system-wide approaches to improve care co-ordination.

Integrating care

A systematic review of the research literature on health systems integration identified ten principles of integration (Suter et al., 2009). They resonate with messages in a recent report by The King's Fund and Nuffield Trust for the Department of Health in England, designed to support the development of the Department's national strategy on integrated care in the context of the NHS reforms (Goodwin et al., 2012). This report identifies the barriers to integrated care, how they can be addressed, and the key enabling elements of a framework for integrating health and social care, with messages that are relevant in the Swedish context. These include: defining a national narrative for integrated care, allowing time for local innovative models to embed, aligning financial incentives and tariffs, data sharing, developing accountability and governance arrangements that encourage integrated care, allowing a nuanced interpretation of competition and patient choice, supporting leadership and organisational development,

and evaluating the impact of integrated care. Importantly, policies on regulation and competition need to stimulate integrated care, which requires clarity for all stakeholders about how the rules around competition and integration will be interpreted in practice.

Delivering high quality, well-co-ordinated care requires an environment that fosters the development of new models of shared care between providers that integrate services across boundaries, including in the community, hospitals, and care and well-being services (Goodwin et al., 2011). The evolution of such models does not need to be standardised, and can be tailored to the specific health needs of local communities. A review of six initiatives¹ considered successful in increasing integration found that, although they spanned five countries and differed in their design and payment systems, a common denominator was the high degree of bundling in their payment systems, with a single budget used to pay for multiple components of a person's health and social care (Hagbjer, 2012). Several initiatives also integrated the delivery of health and social care in one organisation. The studied initiatives suggest that it is possible to combine such models of care with user choice between different providers.

Similarly, a report by the NHS Confederation on the principles, drivers and enablers for integrated notes that, while there are no consistent approaches to integration across the United Kingdom, the majority of integrated care pilots involved integration of practitioners working in different organisations and examples of horizontal integration, such as that between community services and social care (NHS Confederation, 2012). The notable example of Torbay Care Trust illustrates the impact of integrated health and social care on reducing use of secondary care and improving user experience (Thistlethwaite, 2011). Similarly, a study by the Commonwealth Fund of care management programmes that spanned care settings and engaged interdisciplinary teams across the continuum of care found that multifaceted, boundary-spanning approaches were associated with reduced hospital use and readmissions (McCarthy et al., 2013). In contrast, isolated interventions are typically not effective at reducing hospital readmissions.

These models contrast with the Swedish system, which does not generally bundle payments for different types of care, nor is there much organisational integration of care. An exception is the structural integration of health and social care in the TioHundra project in Norrtälje municipality, combining purchasing, service provision and political governance, with comprehensive responsibility for health and social care services for a defined population (Øvretveit et al., 2010). Such integrated care provision is supported by older service users and consistent with Sweden's goal of providing user-centered care. Increased competition and the emergence of

new providers now highlight the need for strengthening integration of the commissioning function, to support integration of care activities between providers (Sjogren and Ahblom, 2012).

The Norrtälje example illustrates the potential in Sweden for developing innovative models which could take a variety of forms to suit local organisations and circumstances e.g. transfers of responsibility for health and social care between county councils and municipalities, joint commissioning by county councils and municipalities, use of incentives and sanctions, integration of different types of care within the same organisation, and even modest interventions such as the identification of a named care co-ordinator in primary care for people with long-term conditions, mental health problems and the frail elderly. Work underway in Sweden to test incentives to increase primary care responsibility for inpatient care, standardise care around discharge, risk stratify patients discharged from hospital, improve integration between primary and specialist care and managing pathways, and reforming payments to primary care to better co-ordinate care are positive moves in this direction.

Sweden's decentralised system facilitates the development of innovative local solutions. The scale of innovation and change will depend on an overt policy commitment to promoting integrated care, organisational leadership, adoption of new ways of commissioning, contracting, delivering and incentivising integrated services, the ability to marshal resources to support change, and wider adoption of successful models through dissemination and emulation. SALAR can play a key facilitation role in this process of change.

The use of information in primary care to support quality improvement, care co-ordination and quality assurance can be strengthened

Systematic data collection, a fit-for-purpose IT infrastructure and peer-to-peer benchmarking and communication are critical for improving the quality of primary care, and care continuity and co-ordination. GPs are often unaware of the variations in quality that exist within and between their practices and those of their peers. Making clinicians aware of such variations, through use of appropriate data and information tools, is a first step to enable them to explore and address the reasons for variable performance. Examples of where a strong tradition of standardised analysis and benchmarking in general practice has led to quality improvements include the QOF in the United Kingdom; although not incentivised, the Quality Indicators in Community Healthcare used to monitor the quality of preventive, diagnostic and therapeutic primary care services in Israel; the Danish General Practice Database which, as well as being able to identify

individual patients that are sub-optimally treated, allows practices to benchmark themselves against other practices at municipal, regional, and national levels.

Improved information would support the regulation of primary care by the national inspectorate, and accreditation of providers, quality assurance and monitoring of the implementation of national standards by local government. Greater standardisation of quality standards in primary care, and the criteria for accreditation, would enable more effective monitoring of quality across primary care providers on a consistent basis nationally. This would support more effective execution of the regulation and quality assurance functions, and provide better comparative information for patient choice.

Access to good data also supports many other important functions such as assessment of local health care needs, risk stratification of patients with intense care needs, patient choice and public accountability for taxpayers' money. Better information availability, transferability between providers, and data linkage are fundamentally important for improving care co-ordination and continuity.

Section 2.3 describes the current status of data availability and use in primary care in Sweden. With primary care accounting for almost 20% of total health expenditure and a high volume of contacts, it is imperative to have fit-for-purpose information for monitoring the quality of primary care. This requires national solutions that, as a first step, enable standardisation in IT systems and electronic records, data collection and compilation across primary care. As a second stage, IT solutions that enable record linkage, transferability and inter-operability across different care settings would greatly enhance progress towards Sweden's goals of reducing use of hospital services and improving care co-ordination. For example, linkage across quality registers can be used to identify patients with complex care needs who can then be assigned care managers. Although several countries have restrictions on the use of linkage across electronic information systems due to concerns about privacy, it is possible to do this in a safe IT environment that does not compromise patient confidentiality, and several countries routinely use linked data to support better patient care.

The lack of a national information architecture and IT framework, including for the quality registers which have developed from the bottom up, are challenges that Sweden is starting to tackle through its national IT strategy. National projects aimed at developing a summary electronic record for use across care providers, integrating information systems and implementing SNOMED CT nationally are underway. However, implementation via such national solutions could potentially be slow, given

the strong tradition of localism and devolved government, the required amendment of legislation and regulations, and the standardisation and upgrading of the IT infrastructure needed to support inter-operability and sharing of patient records across providers. Investment in developing the primary care information base and expediting the implementation of government policies in this area should be a priority.

Sweden's quality registers serve as an international example of best practice in terms of tracking patient care and outcomes over time. There is strong professional commitment in Sweden to the development and use of quality registers, and robust evidence of how they have supported quality improvement in many areas, especially in secondary care. Quality registers need to be better embedded in primary care, to optimise the potential for quality improvement across the entire patient pathway. A Swedish example of the effective use of data in primary care is the prescribing data linked to patient demographics and clinical details, leading to a fall in unsuitable use of medication in the elderly, e.g. poly-pharmacy and neuroleptics. Such examples can become the norm if ensuring that primary care activity is adequately captured in the quality registers becomes a priority. However, populating many quality registers could impose an unsustainable burden on primary care, or result in staff capacity being diverted from patient care. Hence IT solutions enabling, for example, downloads from standardised electronic patient records should be the way forward.

The quality registers also offer excellent development opportunities. Some data linkage of the registers, including to mortality, is already underway, with significant potential for extension. Use of standardised electronic records and data linkage would also reduce the burden on primary care staff of recording duplicative data in multiple quality registers.

The information and IT developments underway appear to be targeted primarily at improving public access to information and to support patient choice. Enhancing, standardising and streamlining the information architecture to support improvements in health care quality and co-ordination, including in primary care, should also be a priority. In addition to tackling some of the practical issues entailed, leadership and a culture change in primary care will also be needed to overcome resistance to data collection by promoting the potential of benchmarking data for quality improvement and supporting patients.

The primary care workforce will need to be adequately staffed and appropriately skilled to meet the challenges that lie ahead

As in many countries, the challenges facing primary care in Sweden will grow – in both scale and complexity. Additionally, care is moving from

hospitals to the community, and primary care is increasingly required to extend its remit to formally encompass a wider care co-ordination role. Ensuring an adequate complement of primary care staff, that also has the requisite training and skills to meet these challenges, will be essential if primary care in Sweden is to raise its game over and above the current high standards.

Although GP numbers in Sweden have increased significantly over the past decade, the lack of ongoing, centrally available data on the workforce and their productivity makes it difficult to assess reliably the adequacy of GP numbers. The government estimates there is a shortage of GPs. Given the long lead time for training, it is important to have long-term, national workforce planning strategies that ensure recruitment initiatives meet projected needs, rather than relying on ad hoc local action by county councils. Similarly, a co-ordinated strategy will be needed to ensure adequate numbers of primary care support staff, nurses in particular, given drop-out and retirement effects.

While the model of primary care in Sweden is potentially well-suited to meet the challenges of delivering high quality, integrated care, it will be important to ensure that workforce competencies remain of the highest standard. Sweden's informal arrangements for continuous professional development (CPD) diverge from the formal CPD requirements for GPs in many countries. The United Kingdom, for example, has introduced an annual appraisal and five-yearly revalidation process that is mandatory for GPs, and practices have to meet minimum national quality standards in order to register with the national regulator, the Care Quality Commission, as a license to practise. While the United Kingdom may have gone further in this regard than most countries, the need for formal CPD schemes for medical professionals as a way of ensuring fitness to practice is recognised in many countries, and warrants consideration in the context of Swedish GPs. Training and CPD for GPs should encompass the skills set required to provide and co-ordinate care, including palliative care, for older people and for those with complex conditions and mental health problems.

Although practice nurses already play an active role in the delivery of primary care in Sweden, their contribution can be enhanced further by developing their skill-set further, extending their roles (for example in prescribing), and redefining their roles in care co-ordination and home health care services.

2.5. Conclusions

Quality and health outcome indicators for Sweden are among the best internationally, reflecting the contribution of its high quality health care

system. Sweden's well-developed and highly skilled primary care sector has played a key role in these trends. Structural reforms in Sweden over the past decade have seen a shift of care from the acute hospital sector towards primary and community care, which has helped to further improve quality and contain health care costs. The growing demands on health and social care services, a tight fiscal environment, and rising public expectations, means this process needs to go further. Moreover, the growing complexity of health care needs and technologies, rising prevalence of multi-morbidities, and the increasing duration for which most people need health and care services, has made care co-ordination and integration of paramount importance.

The multidisciplinary skill base and competencies of Swedish primary care are a national asset. They offer considerable potential for further improvements in the quality of care, through both primary and secondary prevention, and a stronger role for primary care in co-ordinating care across different settings. Primary care provides the first and long-term point of contact for most of the population. It is therefore well positioned to ensure continuity of care and act as the co-ordinating hub across multiple providers and interfaces, although this function would be greatly facilitated if primary care in Sweden had a formal gate-keeping role.

Progress towards these goals will depend on having a facilitatory policy environment, the willingness and ability of county councils and municipalities to work together and with primary care, and the willingness and capacity of GPs to formally take on this wider role. The government will need to ensure that there is a clear strategic vision for primary care shared by SALAR, county councils, municipalities and leaders in primary care; the reforms on choice and competition promote co-ordinated care and avoid fragmentation; and payment and incentive systems foster co-operation, co-ordination and joint working. Primary care will need to be adequately resourced. To meet the increasing demands on primary care, an adequate supply of GPs and other primary care staff will be needed. They will need to be appropriately trained and flexible, including to provide care for complex patients, and systems for continuous professional development should be in place to ensure their skill-set is kept up to date. Innovative local models of integrated care, such as already exist in Sweden's devolved health and care system, should be encouraged. Finally, improvements in the quality, consistency and coverage of primary care data, accompanied by stronger, standardised systems for quality monitoring, assurance and regulation will be essential for supporting quality improvement and care co-ordination in primary care.

Note

1. Kaiser Permanente – United States; Pace – United States; Torbay Care Trust – United Kingdom; PRISMA – Canada; Personal Health Budget – Netherlands; Personal Care Record – Singapore.

Bibliography

- Ahgren, B. (2010), “Competition and Integration in Swedish Health Care”, *Health Policy*, Vol. 96, pp. 91-97.
- Anell, A., A.H. Glengård and S. Merkur (2012), “Sweden: Health System Review”, *Health Systems in Transition*, Vol. 14, No. 5, European Observatory on Health Systems and Policies, www.euro.who.int/_data/assets/pdf_file/0008/164096/e96455.pdf.
- Barnett, K., S.W. Mercer, M. Norbury, G. Watt, S. Wyke and B. Guthrie (2012), “Epidemiology of Multimorbidity and Implications for Health Care, Research, and Medical Education: A Cross-sectional Study”, *The Lancet*, Vol. 380, No. 9836, pp. 37-43, [http://dx.doi.org/10.1016/S0140-6736\(12\)60240-2](http://dx.doi.org/10.1016/S0140-6736(12)60240-2).
- Björnberg, A. (2012), “Euro Health Consumer Index”, Health Consumer Powerhouse, Brussels, www.healthpowerhouse.com/files/Report-EHCI-2012.pdf.
- Boerma, W.G.W. (2004), “Profiles of General Practice in Europe: An International Study of Variation in the Tasks of General Practitioners”, NIVEL, Utrecht, www.nivel.nl/sites/default/files/bestanden/profiles-of-general-practice-in-europe.pdf.
- Boerma, W.G.W., D.M. Fleming et al. (1998), *The Role of General Practice in Primary Health Care*, World Health Organization Regional Office for Europe, Copenhagen.
- Campbell, S.M., M. Hann, J. Hacker et al. (2001), “Identifying Predictors of High Quality Care in English General Practice: Observational Study”, *British Medical Journal*, Vol. 323, No. 7316, pp. 784-787.
- Carlsson, A.C., P. Wändell, K. Sundquist, S.E. Johansson and J. Sundquist (2013), “Differences and Time Trends in Drug Treatment of Atrial Fibrillation in Men and Women and Doctors’ Adherence to Warfarin Therapy Recommendations: A Swedish Study of Prescribed Drugs in Primary Care in 2002 and 2007”, *European Journal of Clinical Pharmacology*, Vol. 2, pp. 245-253, <http://dx.doi.org/10.1007/s00228-012-1322-6>.

- Coleman K., B.T. Austin, C. Brach and E.H. Wagner (2009), “Evidence on the Chronic Care Model in the New Millennium”, *Health Affairs*, Vol. 28, No. 1, pp. 75-85, <http://content.healthaffairs.org/content/28/1/75.full.pdf+html>.
- Coleman, M.P., D. Forman, H. Bryant et al. (2011), “Cancer Survival in Australia, Canada, Denmark, Norway, Sweden, and the UK, 1995-2007 (The International Cancer Benchmarking Partnership): An Analysis of Population-based Cancer Registry Data”, *The Lancet*, Vol. 377, pp. 127-138.
- Docteur, E. and A. Coulter (2012), “Patient-centeredness in Sweden’s Health System: An External Assessment and Six Steps for Progress”, Vardanalys, www.vardanalys.se/Global/Rapporter%20pdf-filer/2012/R3_2012_Patient_centeredness.pdf.
- Epstein, A.M., A.K. Jha and E.J. Orav (2011), “The Relationship Between Hospital Admission Rates and Rehospitalizations”, *New England Journal of Medicine*, Vol. 365, pp. 2287-2295, <http://dx.doi.org/10.1056/NEJMsa1101942>, www.nejm.org/doi/full/10.1056/NEJMsa1101942.
- Friedberg, M.W., D.G. Safran, K.L. Coltin et al. (2009), “Readiness for the Patient-centered Medical Home: Structural Capabilities of Massachusetts Primary Care Practices”, *Journal of General Internal Medicine*, Vol. 24, No. 2, pp. 162-169.
- Gaal, S., P. van den Hombergh, W. Verstappen and M. Wensing (2010), “Patient Safety Features Are More Present in Larger Primary Care Practices”, *Health Policy*, Vol. 97, pp. 87-91.
- Glennard, A.H. (2012), “Is Patient Satisfaction in Primary Care Dependent on Structural and Organizational Characteristics Among Providers? Findings Based on Data from the National Patient Survey in Sweden”, *Health Economics, Policy and Law*, Vol. 8, pp. 317-333, <http://dx.doi.org/10.1017/S1744133112000333>.
- Goodwin, N., A. Dixon, T. Poole and V. Raleigh (2011), “Improving the Quality of Care in General Practice: Report of an Independent Inquiry Commissioned by The King’s Fund”, The King’s Fund, www.kingsfund.org.uk/sites/files/kf/improving-quality-of-care-general-practice-independent-inquiry-report-kings-fund-march-2011_0.pdf.
- Goodwin, N., C. Perry, A. Dixon, C. Ham et al. (2012), “Integrated Care for Patients and Populations: Improving Outcomes by Working Together”, The King’s Fund, www.kingsfund.org.uk/publications/integrated-care-patients-and-populations-improving-outcomes-working-together.

- Groenewegen, P.P., W.G.W. Boerma and B. Sawyer (2004), “General Practitioners’ Use of Time and Time Management”, in R. Jones, N. Britten, L. Culpepper, D. Class, R. Grol, D. Mant and C. Silagy (eds.), *Oxford Textbook of Primary Medical Care*, Oxford University Press, Oxford, pp. 450-455.
- Hagbjer, E. (2012), “Report on International Forerunners Within Integrated Care”, Report No. 5, Leading Health Care, Stockholm.
- Ham, C. (2012), “Competition and Integration in Health Care Reform”, *International Journal of Integrated Care*, Vol. 12, June, www.ijic.org, [URN:NBN:NL:UI:10-1-113106/ijic2012-126](https://nbn-resolving.org/urn:nbn:nl:ui:10-1-113106/ijic2012-126).
- Ham, C. and N. Curry (2010), “Clinical and Service Integration: The Route to Improved Outcomes”, The King’s Fund, www.kingsfund.org.uk/publications/clinical-and-service-integration.
- Hawkins, L. (2011), “Can Competition and Integration Co-exist in a Reformed NHS?”, The King’s Fund, www.kingsfund.org.uk/publications/can-competition-and-integration-co-exist-reformed-nhs.
- Health and Social Care Information Centre (2012), “General and Medical Personal Services, England: 2001-2011”, <https://catalogue.ic.nhs.uk/publications/workforce/numbers/nhs-staf-2001-2011-gene-prac/nhs-staf-2001-2011-gene-prac-rep.pdf>.
- Hofmarcher, M.M., H. Oxley et al. (2007), “Improved Health System Performance Through Better Care Co-ordination”, *OECD Health Working Paper*, No. 30, OECD Publishing, Paris, <http://dx.doi.org/10.1787/246446201766>.
- Ingemansson, M., B. Wettermark, E.W. Jonsson, M. Bredgard, M. Jonsson, G. Hedlin and A. Jonsson Kiessling (2012), “Adherence to Guidelines for Drug Treatment of Asthma in Children: Potential for Improvement in Swedish Primary Care”, *Quality in Primary Care*, Vol. 20, No. 2, pp. 131-139.
- Joynt, K.E. and A.K. Jha (2012), “Thirty-day Readmissions – Truth and Consequences”, *New England Journal of Medicine*, Vol. 366, pp. 1366-1369, <http://dx.doi.org/10.1056/NEJMp1201598>, www.nejm.org/doi/full/10.1056/NEJMp1201598.
- Kringos, D. (2012), “The Strength of Primary Care in Europe”, Nivel, Utrecht.

- Kringos, D.S., W.G.W. Boerma, A. Hutchinson, J. van der Zee and P.P. Groenewegen (2010), “The Breadth of Primary Care: A Systematic Literature Review of Its Core Dimensions”, *BMC Health Services Research*, No. 10:65, <http://dx.doi.org/10.1186/1472-6963-10-65>, <http://w21.biomedcentral.com/1472-6963/10/65/>.
- Lieshout, V.J., M. Goldfracht, S. Campbell, S. Ludt and M. Wensing (2011), “Primary Care Characteristics and Population-orientated Health Care Across Europe: An Observational Study”, *British Journal of General Practice*, <http://dx.doi.org/10.3399/bjgp11X548938>.
- Löfdahl, C.G., B. Tilling, T. Ekström, L. Jørgensen, G. Johansson and K. Larsson (2010), “COPD Health Care in Sweden – A Study in Primary and Secondary Care”, *Respiratory Medicine*, Vol. 104, pp. 404-411.
- Masseria, C., R. Irwin, S. Thomson, M. Gemmill and E. Mossialos (2009), “Primary Care in Europe”, Policy brief, Directorate-General Employment, Social Affairs and Equal Opportunities Unit E1 – Social and Demographic Analysis, European Commission.
- McCarthy, D., A. Cohen and M.B. Johnson (2013), “Gaining Ground: Care Management Programs to Reduce Hospital Admissions and Readmissions Among Chronically Ill and Vulnerable Patients”, Commonwealth Fund, www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2013/Jan/1658_McCarthy_care_transitions_synthesis_v2.pdf.
- Midlöv, P., R. Ekesho, L. Johansson, S. Gerward, K. Persson, C. Nerbrand and B. Hedblad (2008), “Barriers to Adherence to Hypertension Guidelines Among GPs in Southern Sweden: A Survey”, *Scandinavian Journal of Primary Health Care*, Vol. 26, No. 3, pp. 154-159, <http://dx.doi.org/10.1080/02813430802202111>.
- NHS Confederation (2012), “Making Integrated Out-of-Hospital Care a Reality”, www.nhsconfed.org/Publications/Documents/Making-integrated-out-of-hospital-care-reality.pdf.
- Nieburg, I. and T. Kahan (2010), “Cardiovascular Risk Factors Are Not Treated to Target in Hypertensive Patients in Primary Care”, *Blood Press*, Vol. 19, No. 3, pp. 176-181, <http://dx.doi.org/10.3109/08037051.2010.483053>.
- Nolte, E. and M. McKee (2011), “Variations in Amenable Mortality – Trends in 16 High-income Nation”, *Health Policy*, <http://dx.doi.org/10.1016/j.healthpol.2011.08.002>.

- Nomesco (2011), “Health Statistics in the Nordic Countries 2011”, <http://nomesco-eng.nom-nos.dk/filer/publikationer/Helsstat%202011.pdf>.
- Nordström, A. and O. Bodlund (2008), “Every Third Patient in Primary Care Suffers from Depression, Anxiety or Alcohol Problems”, *Nordic Journal of Psychiatry*, Vol. 62, No. 3, pp. 250-255, <http://dx.doi.org/10.1080/08039480802141129>.
- OECD (2011), *Health at a Glance 2011 – OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2011-en.
- OECD (2013), *A Good Life in Old Age? Monitoring and Improving Quality in Long-Term Care*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264194564-en>
- Ostergaard, S.D., L. Foldager, C. Allgulander, A.A. Dahl, M.T. Huuhtanen, I. Rasmussen and P. Munk-Jørgensen (2010), “Psychiatric Caseness Is a Marker of Major Depressive Episode in General Practice”, *Scandinavian Journal of Primary Health Care*, Vol. 28, No. 4, pp. 211-215, <http://dx.doi.org/10.3109/02813432.2010.501235>.
- Øvretveit J., J. Hansson and M. Brommels (2010), “An Integrated Health and Social Care Organisation in Sweden: Creation and Structure of a Unique Local Public Health and Social Care System”, *Health Policy*, Vol. 97, pp. 113-121.
- Øvretveit, J., R. Gillies, T.G. Rundall, S.M. Shortell and M. Brommels (2008), “Quality of Care for Chronic Illnesses”, *International Journal of Health Care Quality Assurance*, Vol. 21, No. 2, pp. 190-202.
- Paris, V., M. Devaux and L. Wei (2010), “Health Systems Institutional Characteristics: A Survey of 29 OECD Countries”, *OECD Health Working Papers*, No. 50, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5kmfxfq9qbnr-en>.
- Pelone, F., D. Kringos, P. Spreeuwenberg, A. De Belvis and P. Groenewegen (2013), “How to Achieve Optimal Organization of Primary Care Service Delivery at System Level: Lessons from Europe”, *International Journal for Quality in Health Care*, <http://dx.doi.org/10.1093/intqhc/mzt020>.
- Pike, A. (2010), “An Empirical Analysis of the Effects of GP Competition”, *Working Paper Series*, Vol. 1, No. 2, Competition and Co-operation Panel, Munich Personal RePEc Archive (MPRA), <http://mpra.ub.uni-muenchen.de/27613/>.

- Rae, D. (2005), “Getting Better Value for Money from Sweden’s Healthcare System”, *OECD Economics Department Working Papers*, No. 443, OECD Publishing, Paris, <http://dx.doi.org/10.1787/082725005676>.
- Reed, J., G. Cook, S. Childs and B. McCormack (2005), “A Literature Review to Explore Integrated Care for Older People”, *International Journal of Integrated Care* [serial online], Vol. 5, Jan 14.
- RIKS-HIA, SCARR, SEPHIA, Swedish Heart Surgery Registry, TAVI (2012), *SWEDEHEART 2011 Annual Report*.
- Roland, M. and C. Paddison (2013), “Better Management of Patients with Multimorbidity”, *British Medical Journal*, Vol. 346, f2510, <http://dx.doi.org/10.1136/bmj.f2510>.
- Royal College of General Practitioners (2013), “The 2022 GP: A Vision for General Practice in the Future NHS”, www.rcgp.org.uk/policy/rcgp-policy-areas/~media/Files/Policy/A-Z%20policy/The-2022-GP-A-Vision-for-General-Practice-in-the-Future-NHS.ashx.
- Santos, R., H. Gravelle and C. Propper (2013), “Does Quality Affect Patients’ Choice of Doctor: Evidence from the UK”, Centre for Health Economics, University of York, *CHE Research Paper*, No. 88, www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP88_quality_choice_GP.pdf.
- Schoen, C. and R. Osborn (2011), “The Commonwealth Fund 2011: International Health Policy Survey of Sicker Adults in Eleven Countries”, www.commonwealthfund.org/~media/Files/Publications/In%20the%20Literature/2011/Nov/IHP%20Survey/PPT_Schoen_2011_survey_ARTICLE_chartpack.ppt.
- Schoen, C., R. Osborn, D. Squires et al. (2011), “New 2011 Survey of Patients with Complex Care Needs in Eleven Countries Finds That Care Is Often Poorly Co-ordinated”, *Health Affairs*, December, Vol. 30, No. 12, pp. 2437-2448, published ahead of print November 9, 2011, <http://dx.doi.org/10.1377/hlthaff.2011.0923>.
- Shi, L.B., B. Starfield, R. Politzer and J. Regan (2002), “Primary Care, Self-rated Health, and Reductions in Social Disparities in Health”, *Health Services Research*, Vol. 37, pp. 529-550.
- Sjogren E. and P. Ahblom (2012), “Report on the TioHundra Project: Tools for Realising Integration”, Chapter 8 in Report No.1, Leading Health Care Foundation, Stockholm.
- Starfield, B., L. Shi et al. (2005), “Contribution of Primary Care to Health Systems and Health”, *Milbank Quarterly*, Vol. 83, pp. 457-502.

- Suter, E., N.D. Oelke, C.E. Adair and G.D. Armitage (2009), “Ten Key Principles for Successful Health Care Integration”, *Healthcare Quarterly*, Vol. 13, pp. 16-23.
- Swedish National Board of Health and Welfare and Swedish Association of Local Authorities and Regions (2013), “Quality and Efficiency in Swedish Health Care – Regional Comparisons 2012”, www.socialstyrelsen.se/Lists/Artikelkatalog/Attachments/19072/2013-5-7.pdf.
- Swedish National Board of Health and Welfare and Swedish Association of Local Authorities and Regions (2011), “Quality and Efficiency in Swedish Health Care – Regional Comparisons 2010”, www.socialstyrelsen.se/lists/artikelkatalog/attachments/18336/2011-5-18.pdf.
- The Commonwealth Fund (2012), “Commonwealth Fund International Survey of Primary Care Doctors”, www.commonwealthfund.org/Surveys/2012/Nov/2012-International-Survey.aspx.
- Thistlethwaite, P. (2011), “Integrating Health and Social Care in Torbay”, The King’s Fund, www.kingsfund.org.uk/sites/files/kf/integrating-health-social-care-torbay-case-study-kings-fund-march-2011.pdf.
- Thorlby, R. (2013), “Reclaiming a Population Health Perspective: Future Challenges for Primary Care”, Nuffield Trust, www.nuffieldtrust.org.uk/sites/files/nuffield/publication/130425_reclaiming-a-population-health-perspective.pdf.
- Thorn, J., M. Norrhall, R. Larsson, D. Curiaç, G. Axelsson, C. Ammon, J. Månsson, J. Brisman, A.L. Söderström and C. Björkelund (2008), “Management of Chronic Obstructive Pulmonary Disease (COPD) in Primary Care: A Questionnaire Survey in Western Sweden”, *Primary Care Respiratory Journal*, Vol. 17, No. 1, pp. 26-31, <http://dx.doi.org/10.3132/pcrj.2008.00008>.
- Wadmann, S., M. Strandberg-Larsen and K. Vrangboek (2009), “Co-ordination Between Primary and Secondary Healthcare in Denmark and Sweden”, *International Journal of Integrated Care*, Vol. 9, 12 March.
- Wallerblad, A., J. Möller and Y. Forsell (2012), “Care-Seeking Pattern Among Persons with Depression and Anxiety: A Population-based Study in Sweden”, *International Journal of Family Medicine*, Vol. 2012, Article ID 895425, <http://dx.doi.org/10.1155/2012/895425>.
- Weidinger, P., J.L. Nilsson and U. Lindblad (2009), “Adherence to Diagnostic Guidelines and Quality Indicators in Asthma and COPD in Swedish Primary Care”, *Pharmacoepidemiology and Drug Safety*, Vol. 18, No. 5, pp. 393-400, <http://dx.doi.org/10.1002/pds.1734>.

Wensing, M., P. van den Hombergh, R. Akkermans et al. (2006), “Physician Workload in Primary Care: What Is the Optimal Size of Practices? A Cross-sectional Study”, *Health Policy*, Vol. 77, No. 3, pp. 260-267.

Database references

OECD (2013), *OECD Health Statistics 2013*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/health-data-en>.



From:
**OECD Reviews of Health Care Quality: Sweden
2013**

Access the complete publication at:
<https://doi.org/10.1787/9789264204799-en>

Please cite this chapter as:

OECD (2013), "Primary care and care co-ordination in Sweden", in *OECD Reviews of Health Care Quality: Sweden 2013*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264204799-6-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.