Chapter 5

Moving from hospitals to primary care for chronic diseases

This chapter provides policy recommendations to help develop stronger primary care in Korea, by suggesting a new type of service delivery – multi-specialty group practices (polyclinics). It examines the rapid growth of health care costs, fuelled by payments that encourage the delivery of high volumes and complex services. Hospitals dominate Korea's health system, which also has one of the highest of avoidable hospital admissions in the OECD. At a time when more Koreans are facing health problems as they get older, primary care services that help people manage health conditions like diabetes and heart diseases are under-delivered. Improving access to high quality primary care services can decrease health inequalities and contribute to social cohesion.

5.1. Introduction

Within less than 30 years, Korea has made remarkable strides in health, controlling communicable diseases, and rapid improvement in life expectancy. Korea has also undertaken one of the most dramatic transformations of its health care system among OECD countries during the past 30 years. Universal access to health insurance was achieved in a very short time span through multiple insurance funds, which were consolidated into a single fund in 2000. This has created a strong institutional framework.

Having pursued these major reforms during the past decade, successive Korean governments have gradually expanded the number of items financed under basic insurance to reduce the high out-of-pocket costs that Koreans face compared to other OECD countries. This helps explain the rapid growth of health care spending per capita at an average rate of 8% per year since 2002, faster than any other OECD country and more than double the OECD average of 3.6% per year over the same period.

While reforms over the past decade have focused on the financing of health care and delivering greater financial protection across the population, health care providers have developed organically with little regulation. Today, Korea is one of the most competitive markets for health care amongst OECD countries with a growing hospital sector. Health care is dominated by private providers and there is little regulation on the scope of practice for hospitals and ambulatory care. The government barely intervenes to influence the location of services compared to other OECD countries.

Korea's health insurance pays both hospitals and physicians on the basis of how many services they deliver ("fee-for-service"). Prior to 2000, this included paying for pharmaceuticals that were dispensed by physicians. In 2000, prescribing and dispensing were separated, which led to a significant loss of income to providers. They responded by expanding services, particularly more complex services that paid more, contributing to the rapid growth of health care spending in Korea.

This organisational structure has benefitted large tertiary hospitals that are ideally suited to high volume and high complexity services. It has also encouraged independent practitioners and smaller health care facilities to try to scale up or to deliver more complex services.

In this environment, the services that tend to be most likely to be under-delivered are primary health care. They generally involve higher levels of patient counselling, less technological intensity, and are relatively less expensive. The *OECD Review of Health Care Quality in Korea* (OECD, 2012b) provided a number of policy recommendations, including strengthening the focus of governance on quality of care, using better financing methods to drive improvements in quality of care in hospitals and improving care for cardiovascular diseases. A central message of this review was that in order to be better prepared for tomorrow's challenges, Korea ought to shift the centre of gravity in its health care system towards primary care and away from hospitals. This chapter seeks to build on the earlier review by detailing the case for primary care and providing policy recommendations to develop a stronger primary care sector. The recommendations contained in this chapter come in two parts, the first are to put the "building blocks" for better primary care in place, for which it is recommended that Korea:

- Proactively use the single insurer to rebalance growth in spending away from hospitals and towards developing primary care services.
- Decrease financial barriers to accessing primary care services by decreasing co-payments to ensure access to primary care to decrease health inequalities and increase social cohesion.
- Increase payments for preventative services, patient counselling and management of chronic health care conditions delivered in primary care.
- Create a new system of primary care based on multi-specialty group practices (polyclinics) staffed by private practitioners.
- Create model primary care polyclinics in medical schools and expand undergraduate and postgraduate training of doctors and nurses in primary care.
- Develop clinical guidelines for primary care, strengthen primary care professional societies and provide better access to information for patient self-management.

Beyond these policies, the critical challenge for the future is to establish this new model of multi-specialty group practices (polyclinics). This model ought to:

- Change the method of paying hospitals from fee-for-service towards a capped system of Diagnosis Related Groups (DRGs). DRGs should be expanded to cover all hospital services and there should be volume caps to prevent excessive growth in hospital spending.
- Provide increased funding to primary care by raising the reimbursement rate for preventative services, counselling and management of chronic diseases; complemented by a pay-for-performance (P4P) scheme to reward high quality primary care.
- Provide targeted government investment to build polyclinics and remove the regulatory and financial barriers in contracting with private practitioners.
- Incentivise primary care to co-ordinate with other public services (e.g. education, employment, social protection) to ensure cross-sectoral collaboration to improve outcomes and increase social cohesion.

5.2. Defining primary care

There is considerable debate as to what constitutes "primary health care" and considerable diversity in how OECD countries organise services that provide the first point of contact with patients. WHO defines primary care as "providing the basis for person-centeredness, continuity, comprehensiveness, and integration. Barbara Starfield, the foremost expert on primary care, states "primary care is the provision of first-contact, person-focused, ongoing care over time that meets the health-oriented needs of people, referring only those too uncommon to maintain competence, and co-ordinates care when people receive services at other levels of care". A primary care team would do such things as offering health promotion and disease prevention; delivering public health services such as vaccinations; diagnosing common health problems like hypertension and depression; referring and co-ordinating health care for patients – managing their journey through the health system. Following the early lead of the United Kingdom, some OECD countries having been moving towards larger clinics with multi-disciplinary teams or

polyclinics providing a wide range of services and which serve as the co-ordinating hub for all health services.

Primary care in Korea is more similar to that in the United States, which has not had a tradition of the public provision of primary health care. Instead, it relies on independently operated specialist health care practitioners. During the 1970s, the United States saw the establishment of the "speciality of family medicine" and primary care sub-specialities, such as ambulatory-focused internal medicine and paediatrics. Primary care in Korea (as in the United States) is often synonymous with health care that is delivered by a doctor trained in addressing a wide range of health care needs of lower acuity, who is referred to as a doctor specialising in "family medicine". Unlike Korea however, the United States also has a tradition of integrated service delivery models, or health maintenance organisations, where primary care and hospital physicians are combined into a single entity and received a capitated payment from common health insurers.

5.3. The health system faces looming challenges

Life expectancy has improved dramatically in Korea in recent decades

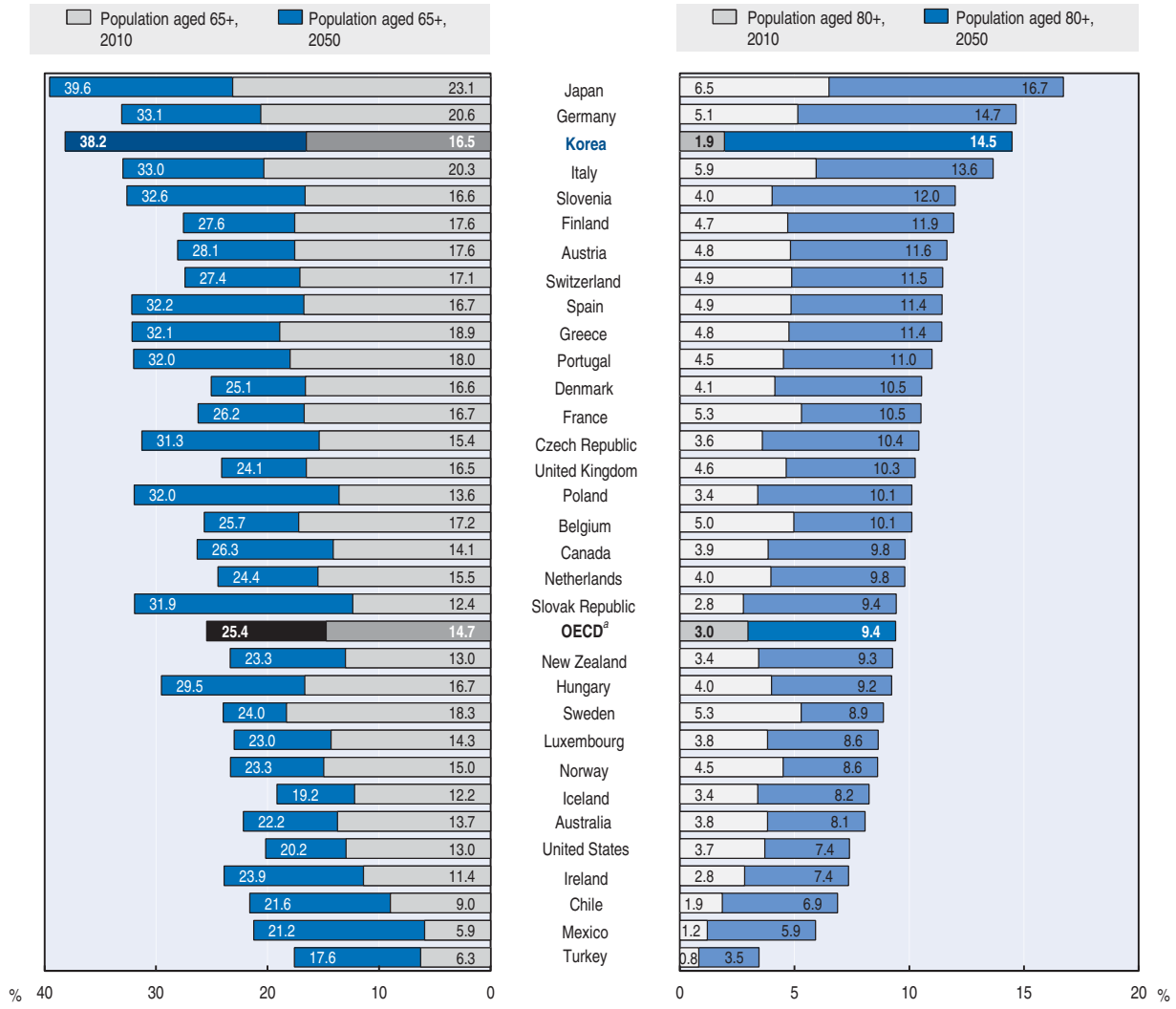
Korea has achieved major strides in improving the overall health of its population in recent years. In 1960, the average Korean could look forward to around 51 years of life. By 2009, life expectancy for the average Korean had risen to 80.3 years – a 57% increase to a level that is above the OECD average of 79.3. As in many OECD countries, life expectancy gains for people aged 65 have been similarly substantial, with Korea outpacing every OECD country (for which data are available) since 2000. In 2009, the average male and female Korean aged 65 could expect to live for another 17.1 years and 21.5 years, respectively compared to OECD averages of 17.1 years and 20.4 years. Korea has also recorded an impressive decline in the infant mortality rate, another key indicator of population health. In 1970 the rate stood at 45 per 1 000 live births. By 2009, it had dropped to 3.5, which is below the OECD average and on par with Germany, Belgium and Italy (OECD, 2012a).

It is likely that these significant improvements in life expectancy reflect the rapid pace of economic development in Korea as much as the influence of the health system or public health practices. In seeking to measure the impact of the health care system, it is important to look at its impact on areas within its influence. The OECD's Health Care Quality Indicators project measures specific health care outcomes in areas where the health services can make a major difference to life and morbidity outcomes.

Korea's substantial elderly population is likely to live longer and suffer from multiple chronic diseases

Population ageing in Korea will be the fastest in the OECD area through 2050. In 2010, persons aged 65 years and above represented 16.5% of the Korean population, slightly higher than the OECD average of 14.7%. Similarly, those aged 85 and over represented 1.9% of the Korean population, slightly lower than the average of 3.0% among OECD countries. By 2050, the number of persons aged 65 years and above in Korea is projected to climb to 38.2% – the second highest level among OECD countries and significantly higher than the OECD average of 25.4%. Most dramatically, persons aged 85 or above are projected to grow to 14.5% of Korea's population, placing it behind only Japan and Germany (Figure 5.1). Significantly longer life spans means that a larger share of the population is likely to be actively managing a chronic health condition.

Figure 5.1. **Shares of the population aged over 65 and 80 years in OECD countries will increase significantly by 2050**



a) Unweighted averages of the 32 OECD countries shown above.

Source: OECD Demography and Population Database.

The demographic shift will apply significant pressure on an already stretched health system as patients seek care across multiple settings and across different clinical and non-clinical specialisations. This will require more frequent use of health services, particularly to help patients who will live longer while managing a chronic condition.

Risky health behaviours amongst the population today may mean that more Koreans will face chronic diseases

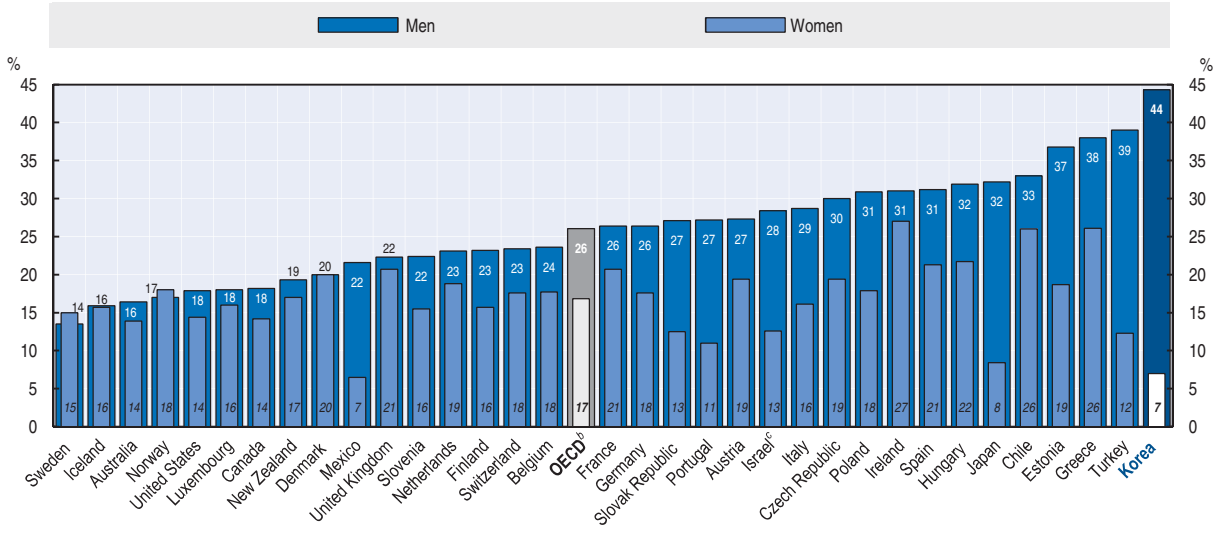
The increase in risky lifestyle behaviours amongst Korea's population is cause for concern. As is the case across the OECD, Korea's economic development has been accompanied by changes in dietary habits that result in a steady increase in the total level of fat intake. Data from the Korean National Health and Nutritional Examination Survey showed that the prevalence of abdominal obesity, which is associated with various forms

of chronic disease including diabetes, increased among adults aged 20 and over by almost 9% over the period 1998-2007 (Lim et al., 2011). The OECD projections indicate that Korea's current obesity rates will rise by a further 5% within ten years (Sassi, 2010). Inevitably, this increase in obesity will result in more Koreans suffering from chronic diseases such as diabetes, cancer, cardiovascular and respiratory conditions (Berry et al., 2011).

Smoking rates are also a public health concern, as it is a major risk factor for cardiovascular disease, cancer, chronic obstructive pulmonary disease (COPD) and asthma. While having fallen considerably from very high levels during the 1980s, Korean males still have smoking rates that are among the highest across OECD countries (Figure 5.2). While the proportion of women who smoke is the lowest in the OECD, those that do are likely to start at a younger age and are therefore exposed to the harmful effects of smoking earlier in life. This underlines the importance of comprehensive health promotion and preventive action for both males and for females.

Figure 5.2. **People smoking daily in OECD countries, by gender, 2011 or latest year available**[a]

Percentage of 15-year-olds and over



Note: Countries are ranked in ascending order of the male category.

a) Data refer to 2006 for Austria, Mexico and Portugal, 2007 for Ireland, New Zealand, Slovenia and Switzerland, 2008 for Belgium and the Czech Republic, 2009 for Canada, Chile, Germany, Greece, Hungary, Iceland, Israel, Korea, Poland, the Slovak Republic, Spain, Sweden, the United Kingdom and the United States, 2010 for Australia, Denmark, Estonia, Finland, France, Japan, the Netherlands and Turkey, and 2011 for Italy, Luxembourg and Norway.

b) Unweighted averages of the 34 OECD countries shown above.

c) Information on data for Israel is available at: *http:/dx.doi.org/10.1787/888932315602.*

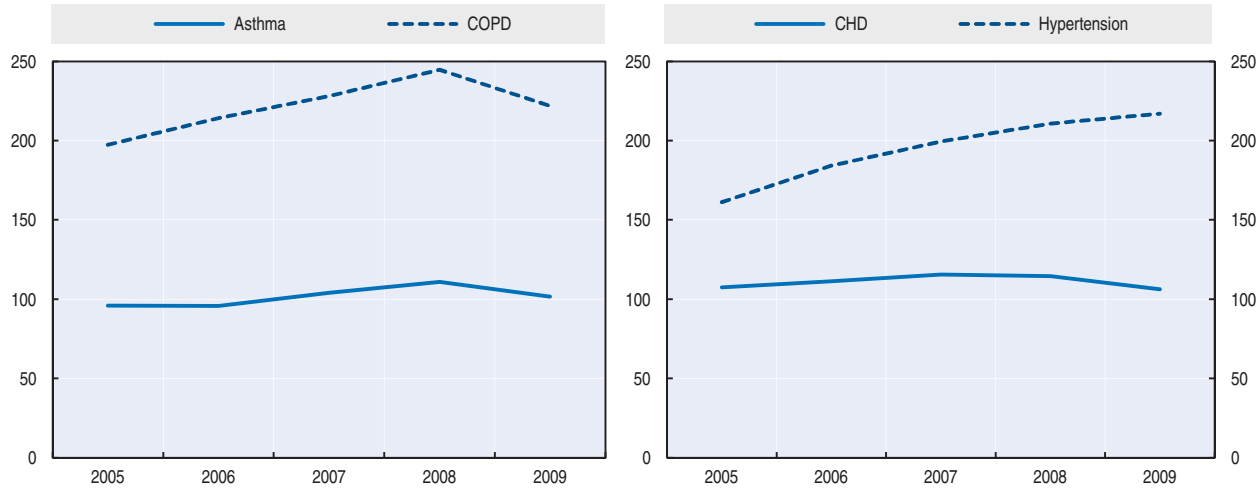
Source: OECD Health Database 2012, *www.oecd.org/els/health-systems/.*

High avoidable hospital admissions point towards weaknesses in primary care

Korea performs consistently poorly on indicators on the ability of primary care services to reduce hospital admission. Korea has persistently high admission rates for COPD and asthma. While asthma has remained constant, COPD admissions appear to be rising (Figure 5.3). Hypertension admission rates are also high and have increased steadily over the past few years.

Figure 5.3. **Potentially avoidable hospital admissions rates in Korea, 2005-09**

Per 100 000 patients admitted to hospital



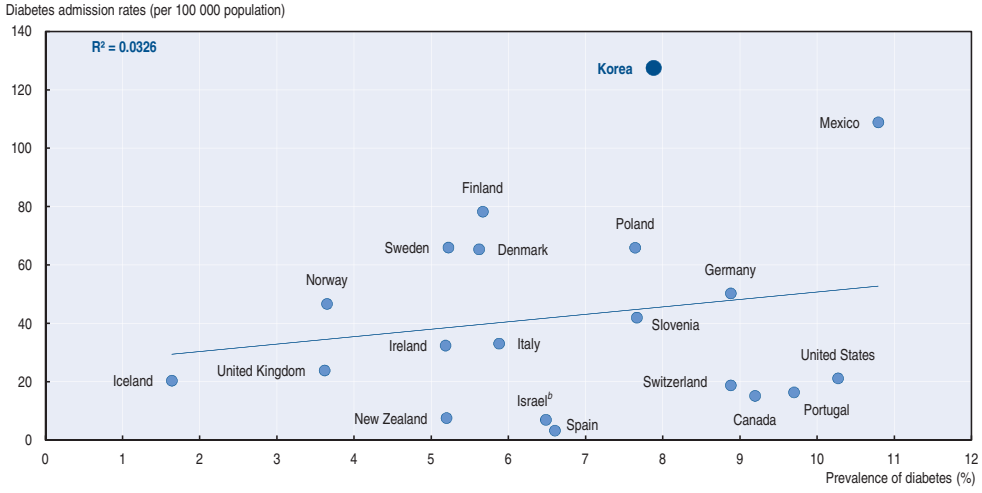
CHD: Coronary heart disease.

COPD: Chronic obstructive pulmonary disease.

Source: OECD Health Database 2012, www.oecd.org/els/health-systems/.

Korea also has very high hospital admission rates for uncontrolled diabetes relative to its prevalence of diabetes. In 2009, it accounted for 127.5 admissions into hospital per 100 000 population, significantly higher than countries that shared Korea's level of prevalence such as Poland, Slovenia, Germany, Canada and Israel (Figure 5.4).

Figure 5.4. **Uncontrolled diabetes admission rates and prevalence of diabetes in OECD countries, 2009 or latest year available**[a]



Note: Prevalence estimates of diabetes refer to adults aged 20-79 years and data are age-standardised to the World Standard Population. Hospital admission rates refer to the population aged 15 and over and are age-standardised to 2005 OECD population.

a) For diabetes admission rates, data refer to 2007 for Spain, 2008 for Hungary, Iceland, Switzerland and the United States, and 2009 for all other countries. For the prevalence of diabetes, estimates refer to 2010 for all countries.

b) Information on data for Israel is available at: *http:/dx.doi.org/10.1787/888932315602.*

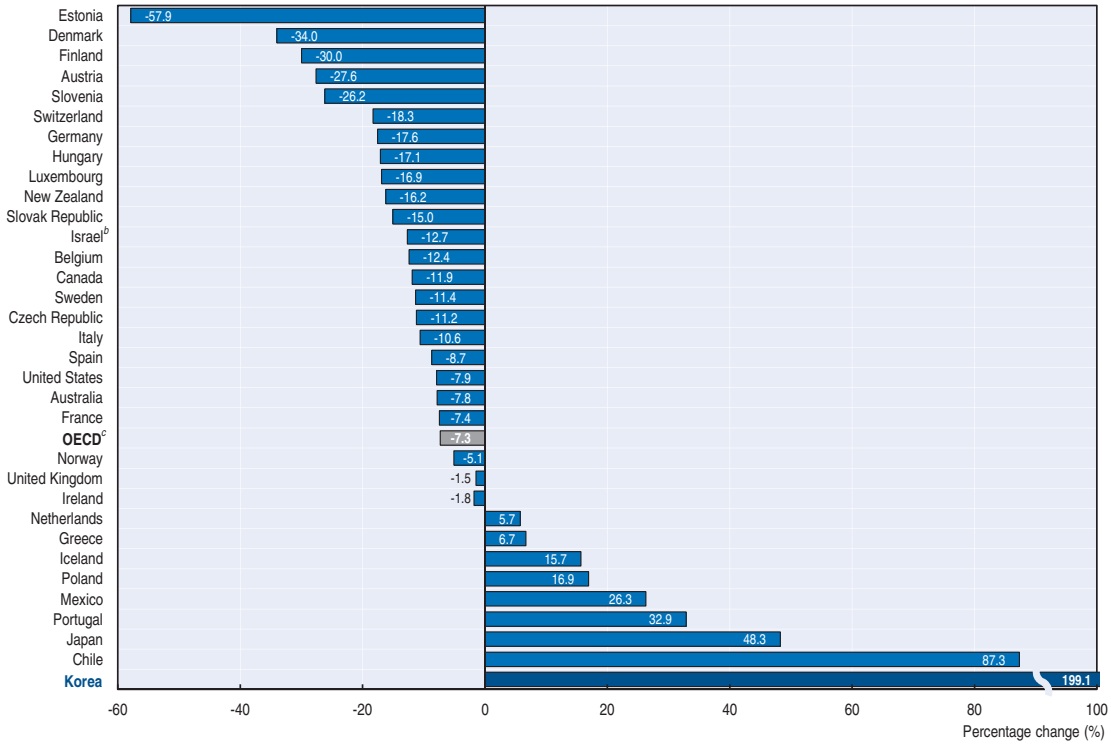
Source: International Diabetes Federation for prevalence of diabetes estimates; *OECD Health Database 2012* for hospital admission rates, *www.oecd.org/els/health-systems/.*

Diabetes is a complex chronic condition that cannot be cured but can be managed with good quality care. The cornerstone is fostering healthy lifestyles based on diet, physical activity, not smoking and, for some patients, appropriate medications or insulin injections. Each element can be aided through health care that emphasises regular review and assessment and support for patient education and lifestyle management, which are often best delivered in primary care settings. As diabetes also increases the likelihood of other chronic diseases, care should be co-ordinated by a generalist doctor who can provide support across the whole of a person's health needs. The management of diabetes is therefore a good indicator of the quality of primary health care.

Korea also faces major challenges in mental health and primary care

There are signs of severe mental distress in Korea, in particular the suicide rate, which is the highest among OECD countries and the fourth leading cause of death in 2010. Using suicide as a crude litmus test for the mental health of the population thus gives an alarming picture of mental well-being in Korea. The suicide rate was highest among the elderly, and it is rising among adolescents. Whilst most OECD countries have seen decreasing suicide rates since 1995, with pronounced declines observable in a number of countries, deaths from suicide have increased significantly – by 199% in Korea (Figure 5.5).

Figure 5.5. **Change in suicide rates in OECD countries, 1995-2010 (or latest year available)**[a]



a) Data refer to 2005 for Belgium, 2006 for Denmark, 2007 for Switzerland, 2008 for New Zealand, Spain and Sweden, 2009 for Canada, Chile, France, Greece, Hungary, Iceland, Israel, Italy, Japan and Luxembourg, and 2010 for all other countries.
b) Information on data for Israel is available at: *http:/dx.doi.org/10.1787/888932315602.*
c) Unweighted average of the 32 OECD countries shown above.

Source: OECD Health Database 2012, *www.oecd.org/els/health-systems/.*

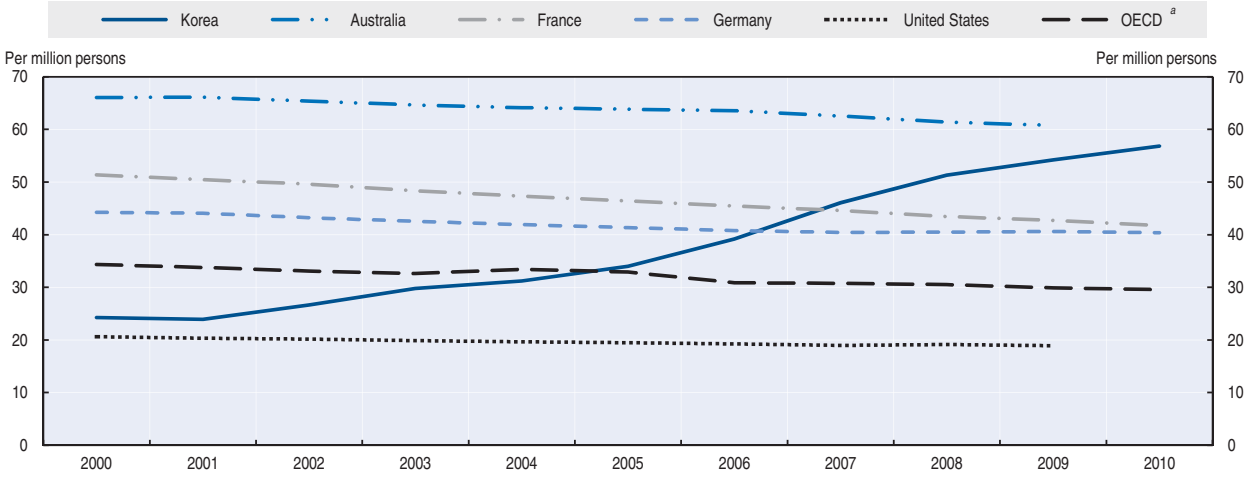
High and rising rates of suicide in Korea indicate a significant level of unmet mental health needs. Mental health services provide significantly lower treatment rates for mild-to-moderate mental illnesses, such as depression and anxiety, when compared to other countries (Kim, 2012). These services would best be provided by a strong system of primary care. It is particularly important given the high rate of suicide among the elderly, where mental illness often accompanies other chronic diseases such as diabetes and cancer.

5.4. Korea's health system is geared towards hospitals and not primary care

Hospitals dominate the health system

At a time when Korea faces the rising onset of chronic diseases, the health care system is biased towards supplying hospital services rather than primary care. Korea has one of the most substantial hospital sectors, relative its population, amongst OECD countries. While most OECD countries have been gradually reducing the number of hospital beds, Korea has seen a major expansion in the supply and availability of resources in the hospital sector. Consequently, the number of hospitals and hospital beds relative to the population in Korea has overtaken almost all OECD countries over the past 20 years (Figure 5.6). In 2010, with 57 hospitals per million persons, Korea is behind only Japan (68) and Australia (61 in 2009), and well above the OECD average of 30 hospitals per million population. Similarly, Korea's 8.8 hospital beds per thousand people places it behind only Japan and well above the OECD average of 5.1.

Figure 5.6. **Number of hospitals relative to the population, selected OECD countries, 2000-10**

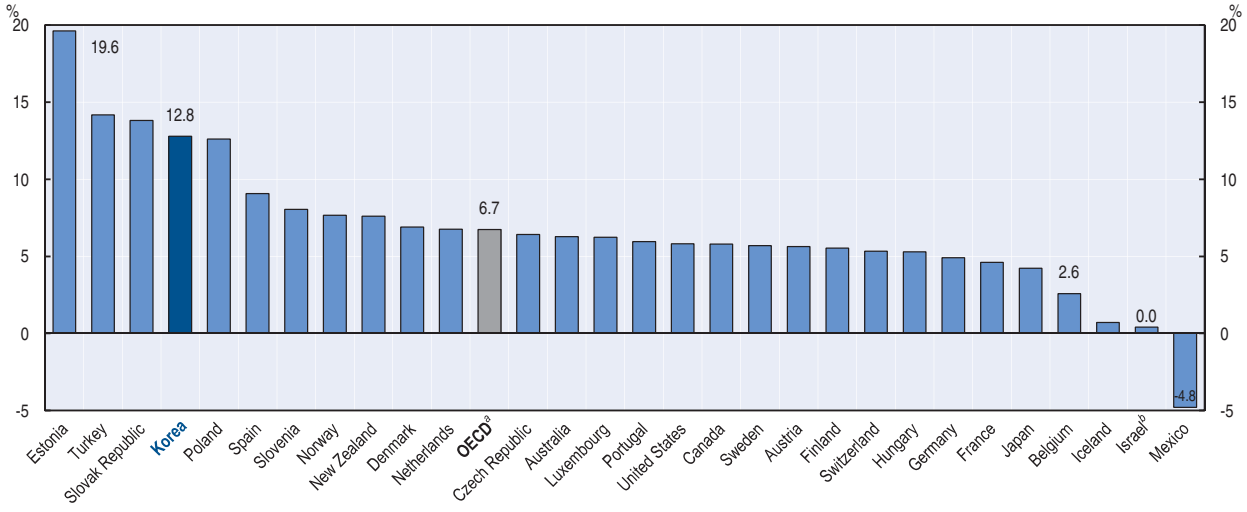


a) Unweighted average of 32 OECD countries whose data are available over the period 2000-10.

Source: OECD Health Database 2012, /www.oecd.org/els/health-systems/.

Spending on hospitals has been the major driver of growth in health expenditure in Korea over recent years. Spending on hospitals in Korea increased by 13% a year between 2002 and 2009, compared to 6% a year for spending on ambulatory care services (principally physician offices and dentists' offices) and 9% a year for retail sales of health and medical goods (principally pharmaceuticals sold from chemists) over the same period. While it is not unusual for hospitals to be the fastest growing area of spending across OECD health systems, the growth rate of hospital spending in Korea, at an average of 12.8% per year between 2002 to 2009, is close to double the OECD average (excluding Chile, Greece, the United Kingdom, Italy and Ireland where data was not available) of 6.7% a year over the same period (see Figure 5.7).

Figure 5.7. **Average annual growth in hospital spending per capita in OECD countries, 2002-09**



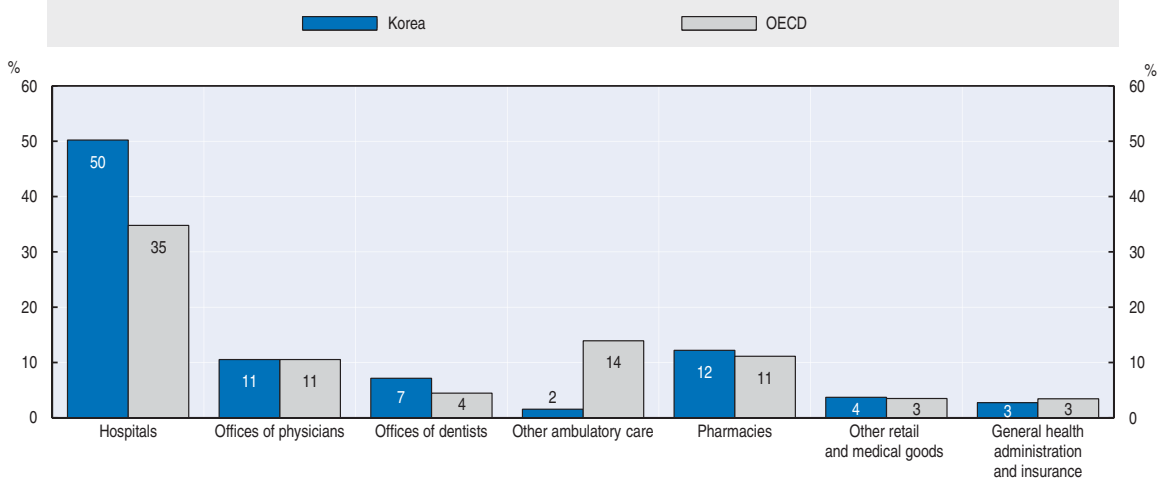
a) Unweighted average of the 29 OECD countries whose data are available over the period 2002-09 (excluding Chile, Greece, Italy, Ireland and the United Kingdom).

b) Information on data for Israel is available at: *http:/dx.doi.org/10.1787/888932315602*.

Source: OECD Health Database 2012, *www.oecd.org/els/health-systems/*.

As the single largest component of health spending in OECD countries, hospitals often account for a significant share of growth. Over the past five years, hospital spending accounted for half of the growth in overall health spending in the Korean health system (see Figure 5.8). In comparison, across the group of 17 OECD countries for which data was available, hospitals accounted for 35% of the growth in health spending over the same period. This strong growth in hospitals spending reflects the structure of health services and operation of payments in Korea.

Figure 5.8. **Major contributors to growth in health spending per capita, Korea versus OECD,[a] 2004-09**



a) Unweighted average of the 17 OECD countries whose data are available over the period 2004-09 (Belgium, Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Korea, the Netherlands, New Zealand, Poland, Slovenia, Spain and Switzerland).

Source: OECD Health Database 2012, *www.oecd.org/els/health-systems/*.

A large amount of the growth in the number of hospitals in Korea has occurred amongst smaller hospitals. Hospitals in Korea are generally classified into major "tertiary hospitals", larger "general hospitals" and comparatively smaller "hospitals". As can be seen in Table 5.1 below, increases in the number of "hospitals" and "general hospitals" have been accounting for most of the new institutions over the past half decade.

Table 5.1. **Distribution of hospitals by size in Korea, 2006-10**

Units

	Tertiary hospitals	General hospitals	Hospitals	Clinics
2006	43	253	1 322	25 789
2007	43	261	1 639	26 141
2008	43	269	1 883	26 528
2009	44	269	2 039	27 027
2010	44	274	2 182	27 469

Source: HIRA/NHIC (2011), *National Health Insurance Statistical Yearbook 2010*, December.

The high rate of admissions to hospital for avoidable conditions suggests that primary care is not playing its critical role of prevention and diagnosing and treating patients for chronic diseases Many Koreans admitted to hospitals are for conditions that should have been treated earlier in primary care. Given the rise in chronic diseases like diabetes, an approach stressing prevention to address changing risk factors for health will be a key to helping reduce relatively more expensive hospital admissions in the future.

Gatekeeping in the Korean health care system is weak

A major challenge for ensuring that patients receive appropriate care is weak gatekeeping in the Korean health system. Ideally, patients should have a trusted advisor to help them navigate through the complex number of available services. The purpose of gatekeeping is to strengthen the relationship between primary care providers and patients, thereby enhancing patients' agency in selecting the most appropriate form of care. Unfortunately, patients do not generally have long-term relationships with a primary care provider. Instead, they face an almost unconstrained choice of provider and can choose between western and oriental medicine. While there is notionally a requirement to have a referral from a family medicine specialist or a general medical practitioner prior to visiting a tertiary hospital, gatekeeping is not strictly enforced and patients have relatively easy access to tertiary hospitals and their specialists (Chun et al., 2009).

Indeed, with significant competition between hospital outpatient departments and small clinics with minor surgical facilities, many health care providers are likely to see family medicine as an "entry point" for more (or more complex) services such as diagnostic testing, screening and minor surgical procedures. Many hospitals have adopted practices that have weakened the effectiveness of the requirement to seek a referral before accessing specialist care. One example is the establishment of family medicine centres (or departments) on hospitals premises that can sometimes also serve as a "gateway" for patients into the hospital at large. Absent the availability of longitudinal information on health outcomes experienced by patients, it is difficult to determine the extent to which weak gatekeeping practices facilitate the provision of unnecessary care.

The boundaries between primary and secondary care are blurred

The demarcation between primary and secondary care in Korea is very blurred. Most of Korea's very large number of clinics (Table 5.1) have a medical specialisation, leading

to a very fragmented array of health services. Typically, clinics are operated by those specialising in general medicine, internists, family physicians and paediatricians (HIRA, 2011). Amongst physicians working in clinics, the largest category, "general medicine" represents physicians with a medical degree but without a specific specialisation in "family medicine". Family medicine in Korea is equivalent to what many OECD countries refer to as "general practice", and these professionals account for less than 3% of physicians working in health care clinics (Table 5.2).

Table 5.2. **The major specialties of physicians working in clinics in Korea, 2005-09**

	2005		2006		2007		2008		2009	
	Number	%	Number	%	Number	%	Number	%	Number	%
General medicine	7 851	*26.3*	8 165	*26.4*	8 466	*26.8*	8 803	*27.3*	9 179	*27.8*
Internal medicine	4 041	*13.5*	4 220	*13.7*	4 317	*13.7*	4 384	*13.6*	4 505	*13.7*
Orthopaedics	2 008	*6.7*	2 060	*6.7*	2 067	*6.6*	2 051	*6.4*	2 057	*6.2*
Obstetrics and gynaecology	2 674	*8.9*	2 591	*8.4*	2 539	*8.0*	2 499	*7.8*	2 484	*7.5*
Paediatrics	2 536	*8.5*	2 570	*8.3*	2 541	*8.1*	2 558	*7.9*	2 601	*7.9*
ENT	1 992	*6.7*	2 088	*6.8*	2 146	*6.8*	2 194	*6.8*	2 284	*6.9*
Family medicine	774	*2.6*	789	*2.6*	773	*2.5*	751	*2.3*	777	*2.4*

ENT: Ear, nose and throat.

Source: HIRA (2010), "HIRA Report on Medical Care Institutions" (in Korean), Seoul, Korea.

Some OECD countries that do not have a large cadre of people who specialise in general practice (or family medicine in the Korean context) have sought to overcome this challenge by promoting multi-specialty health clinics where doctors can work together to address people's health needs. However, this is not the case in Korea. In addition to being staffed by those without specific training in general practice, 94% of health care clinics are solo practices (Table 5.3).

Table 5.3. **Solo and group practice amongst clinics in Korea, 2010**

	Solo practice		Group practice	**Total**
	Private	Incorporated		
Number	24 792	629	1 606	**27 027**
Percentage	*91.7*	*2.3*	*5.9*	***100.0***

Source: HIRA (2010), "HIRA Report on Medical Care Institutions" (in Korean), Seoul, Korea. These statistics exclude dentistry and oriental medicine clinics.

Another major concern is the large number of small health care clinics with a small number of beds. In 2010, there were an average of 3.6 beds across the 27 469 small clinics (HIRA/NHIC, 2011), despite the fact that Korea population is concentrated geographically. The tendency towards having the physical infrastructure for complex services readily available suggests that these facilities may be delivering services of a higher clinical intensity than may be medically appropriate.

Competition between health care facilities is significant as many institutions have the capability to deliver similar services. Clinics and general hospitals provide basic surgery and limited inpatient services, and most major hospitals have large outpatient departments. In this market, larger hospitals often distinguish themselves by virtue of their ability to deliver a greater range of more complex services and utilise the latest technology effectively, as a single destination for all medical needs, staffed by the most

prominent medical specialists. Over time, these hospitals have benefitted from a prestige factor amongst consumers who often turn to the most qualified medical specialist they can access rather than general practitioners who specialise in managing the range of a patient's needs.

The way Korea pays providers encourages greater activity rather than improved health outcomes

Korea pays providers using a fee-for-service payment system, for both hospitals and primary care, which are process-based and reward providers for the number and type of activities they perform. At a system-wide level, this form of payment can create incentives for overprovision as providers seek to maximise revenues that depend on the volume and intensity of services delivered. While many OECD countries still use fee-for-service payments in primary care, Korea is unusual in that it still applies to hospital care as well. All health care services – whether in primary care or hospitals – are reimbursed on a common fee schedule that ranks all health care services by their degree of clinical intensity. This is potentially an inflationary system, as the more services are provided, the more a health care facility is paid.

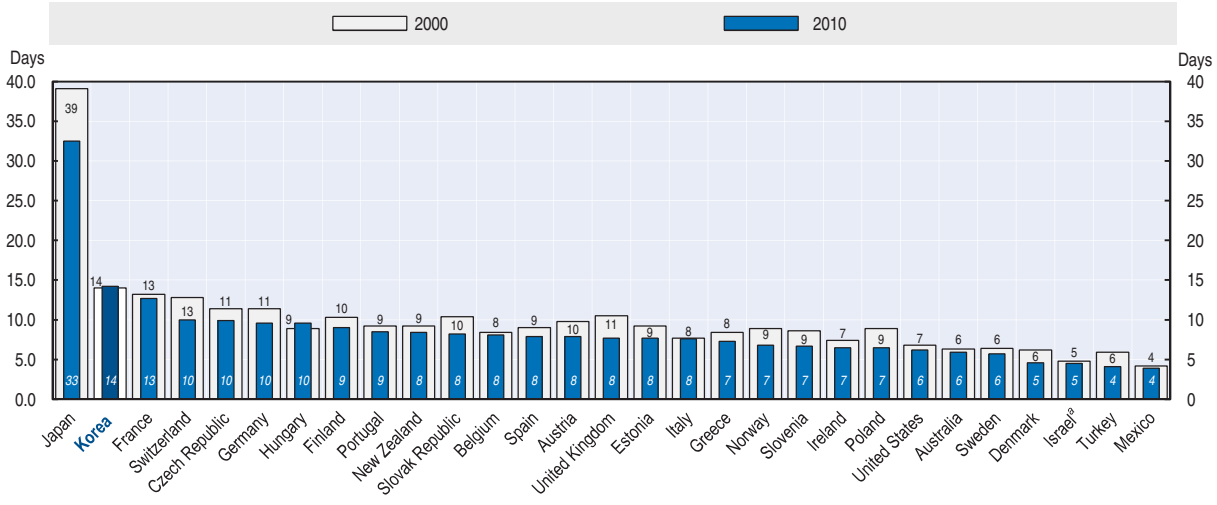
Most OECD countries have shifted to Diagnosis Related Groups (DRGs) approach, which charges a fixed fee for a hospital visit (in practice, such as setting a limit on the number of fee-for-service items that can be billed). Korea has started to introduce DRGs, but it's still in its infancy, and only a small percentage of hospital services are covered by the DRG system. From the standpoint of cost control, Although DRGs regulate the prices for hospital services and encourage a decrease in the length of stay, they still provide an incentive to increase volume many OECD countries also set an overall budget for hospital care. Korea currently lacks limitations on the amount of services that can be delivered per case and on the overall hospital budget.

For patients, the incentives created by the Korean payment system often mean a greater number of services per episode of care and long hospital stays. After Japan, Korea has the longest average length of hospital stays for inpatient care amongst all OECD countries. Indeed, Korea's average length of 16.7 days per inpatient admission in 2008 was almost double the OECD average of nine days (Figure 5.9). While variations in the average length of stay can often reflect a number of factors, Korea is an outlier together with Japan. Both these countries also have a fee-for-service payment system and an abundant supply of hospital beds. This suggests that paying providers based on the number of activities being undertaken gives a strong incentive to hospitals to extend patient stays. In addition, the provision of long-term care in hospitals also increases the average length of stay (Jones, 2010).

As the fee-for-service schedule in Korea is common across primary and hospital services, by design, primary care services are generally cheaper than those in hospitals and doctors have an incentive to provide more complex services. As a result, primary care providers have a financial incentive to become mini-hospitals that provide surgical procedures, often when not appropriate or safe. Furthermore, fee-for-service systems often do not pay (or pay comparatively less) for services such as counselling, education and guidance (Fujisawa and Lafortune, 2008). At a time when the burden of disease in Korea is shifting towards chronic diseases, which requires ongoing medical care of lower acuity and doctors' support in encouraging patient self management, a fee-for-service reimbursement structure may not be the best approach to fostering high quality chronic care. At the very least, fee-for-service should be adapted to encourage key interventions

that would improve outcomes for chronic diseases such as diabetes, hypertension, and asthma. Fee-for-service payments to hospitals should be de-linked from payments for primary care services – or capped altogether.

Figure 5.9. **Average length of stay for inpatient care in OECD countries, 2000 and 2010**



Note: Countries are ranked in ascending order of the data for 2010.

a) Information on data for Israel is available at: *http://dx.doi.org/10.1787/888932315602*.

Source: OECD Health Database 2012, *www.oecd.org/els/health-systems/*.

The combination of poor gatekeeping, fragmented health services and fee-for-service entrenches institutional incentives for all providers to deliver as many and as complex services as possible. Within this market structure, doctors have the difficult task of both self-regulating the care they provide while balancing entrenched institutional or personal imperatives to maximise profits. Perhaps nowhere is this pressure stronger than in primary care, where doctors receive relatively lower incomes.

5.5. Getting the building blocks right: Payments, flexible institutions and workforce

To deal with looming challenges, the Korean health care system needs to adapt to support patients in co-ordinating their health needs across multiple services and ensuring good continuity of care. Critically, it will need to help patients avoid unnecessary acute care. Currently, the system does the opposite – it encourages further diagnosis and the utilisation of the large hospital sector. This is medically undesirable, unnecessary, and expensive. Without a strong community-based primary care system, consumer preferences for hospital care have been reinforced by a fiercely competitive market of health care providers who tend to deliver what is profitable for them and not what is most appropriate for patients' long-term health needs. It is important to emphasise the provision of evidence-based health promotion and prevention along with partnering with patients to help them select the appropriate services for their needs

Korea already has some of the key features needed to develop world class primary care. It has a good supply of physicians working in local clinics and an outstanding record for technological innovation. There are also individual projects that can serve as good examples of how effective primary care can promote good health, raise health awareness

and prevent the deterioration of chronic disease. The challenge is to ensure that the building blocks that are already in place are financially supported to grow, and that institutional conditions are put in place that allow for these models to expand across the country. This will require dedicated investment that cannot be easily diverted towards funding services that serve as a conduit to hospital admission.

The following measures could help Korea develop a stronger primary care sector:

- Separate hospital and primary care payment. For hospitals, move away from fee-for-service towards a full DRG system for all hospital services and a capped hospital budget.
- For primary care, increase payments for preventative services, counselling, and management of chronic diseases; complemented by a pay-for-performance scheme that rewards high quality primary care.
- Building the capacity within government to channel money towards primary care especially capital investment.
- Create a network of multi-specialty group practices (polyclinics) staffed by private practitioners.
- Create model primary care polyclinics in medical schools to train the primary care workforce.
- Developing supporting infrastructure for primary care including clinical guidelines and strengthening professional societies, and providing better access to information for patient self-management.
- Incentivise primary care to co-ordinate with other public services (e.g. education, employment, social protection) to ensure cross-sectoral collaboration to improve outcomes and increase social cohesion.

Moving away from fee-for-service payments

Korea is facing a future with an ageing population and rising chronic diseases, Korea ought to move beyond a financing an expansion of health care and towards financing care that is appropriate for a particular patients needs and is of high quality. Currently, doctors have incentives to deliver the services on which they can earn higher profits. Variations in the profitability of certain services influences the pattern of services provided in Korea. Recent efforts by the Health Insurance Review and Assessment Service (HIRA) have sought to revise the fee structures by adjusting fees within a particular speciality in line with their resource intensity. Nevertheless, it is likely that distortions between different specialties will remain, with specialities enjoying higher fees from the start maintaining their position (Mathauer et al., 2009).

To address this situation, policy makers should increase financial support to doctors for prevention and patient self-management of chronic disease. With the type of services often delivered in primary care settings (such as physician advice and the treatment of common conditions) attracting lower fees than specialist services, the current payment system pushes service providers towards delivering additional services that provide higher fees. One way of addressing this situation in an environment of budget constraints would be to consider increasing the relative price of general practitioner services (particularly for a doctor's time spent in counselling and guidance) while decreasing relative prices for specialities that are over-supplied, as has been suggested by the World

Health Organization (Mathauer et al., 2009). A further challenge to increasing fees for patient counselling and more cognitive services has been the poor coding showing which services are actually delivered when a doctor provides a standard consultation in a health clinic. Better coding could provide policy makers with the possibility of increasing fees for consultations for patient counselling and offsetting this through reductions in fees for consultations associated with lab tests such as radiology and endoscopy.

While this approach will help make primary care services more financially viable, it may not be enough if implemented on its own. There is a risk that such a policy may fail to change the underlying culture of doctors not prioritising counselling their patients, and indeed, could simply be absorbed as a higher payment for a similar amount of work.

This suggests the need for additional funding mechanism beyond fee-for-service. Pay-for-performance (P4P) is increasingly popular approach across OECD countries, where payments are made for collecting additional data and achieving improved clinical outcomes. Korea is already using P4P in hospitals with the Value Incentive Programme. In most OECD countries, P4P is used in primary care to collect better data in primary care and processes that lead to better clinical outcomes and fewer hospital admissions. The United Kingdom has introduced the most far-reaching P4P scheme in primary care, the Quality and Outcome Framework (QOF), but there are many other schemes including France, Germany, and Estonia. Most of these schemes cover chronic diseases and collect clinical data that are linked to improved outcomes. For example, the schemes mandate the collection of data on the level of Haemoglobin A1C, a measure of diabetes control, and providers are rewarded for good scores.

P4P can be used as an overlay on fee-for-service to encourage care co-ordination. Germany introduced disease-management programmes that paid providers more to follow evidence-based guidelines for diabetes and other chronic conditions. France created a P4P scheme to increase the uptake of prevention for diabetes and hypertension as well as monitoring generic prescribing. While the evidence on whether P4P schemes lead to better health outcomes in primary care is ambiguous, they can be a useful tool to drive specific activities associated with good care, such as the use of guidelines and regular monitoring of patients' health.

A more fundamental reform would be to provide a means by which primary health care professionals can derive a greater proportion of their income outside of the fee-for-service structure. An example could be to progressively move to a mixed payment system that provides some capitation payments for patients that register with a medical practice as their chosen first point of call for health care services and fee-for-service for important services like measuring blood glucose levels and lowering it for patients with diabetes.

Delivering targeted funding to primary care requires the National Health Insurance to be a proactive purchaser not a passive payor

Despite the major reform of consolidation under a single insurer, the institutions behind Korea's National Health Insurance do not make the most of their position to be an active purchaser shaping the market for health care. The National Health Insurance Corporation's (NHIC) activities are focused on reimbursement and claims process, and it has little scope to use the financing of health care services to drive policy changes. This is instead located in another agency, the Health Insurance Review and Assessment Service (HIRA), whose mandate as the assurer of insurance claims limits it to paying small amounts of funds to providers. HIRA's role in the Korean health system positions it

as the institutional leader for driving quality, but leaves it with few functional levers other than a retrospective assessment of claims and collecting and reporting performance data. The consequence of this functional separation between HIRA and the NHIC is that no one organisation has the in-house capacity (or incentive) to proactively design and implement a payment arrangement that embeds quality into purchasing.

Instead, financing of National Health Insurance in Korea remains characterised by a system of fee-setting largely occurring through a centralised National Health Insurance Policy Deliberation Committee. As a result of this centralised (and annual) process, it is likely that discussions over quality improvements are often "crowded out" at precisely the time they ought to occur. Annual negotiations conducted with peak bodies negotiating on behalf of all providers leave little scope to foster competition amongst providers in driving improvements in quality or lowering costs. With little capacity for the purchaser to vary compulsory contracts from one hospital to another (for example, by altering prices or quality obligations), health insurance in Korea has weak quality and budgetary controls. In effect, the Ministry of Health and Welfare currently determines the overall budget for health insurance when it negotiates fees through the National Health Insurance Policy Deliberation Committee. A more proactive effort is needed to design health care policies which meet Korea's future needs.

Korea ought to make more of its single insurer. Theoretically, a single insurer should have a strong bargaining position in negotiations with provider groups, enabling it to drive change in the way private providers deliver health care. With no risk that patients can move to another fund, a single insurer has an economic incentive to focus on prevention and early intervention – investing in a person's good health today leads to fewer claims (and payouts) in the future.

Efforts ought to be undertaken to ensure that an institution in Korea develops the tools needed to help direct funding to patients or areas of need, and has the flexibility to invest funds beyond simply paying the medical bills of patients under a common fee-for-service schedule. Policy makers ought to have the financial freedom to assess and invest in proposals that develop best value for money in delivering high quality primary care. Such flexibility would allow health insurance to fund worthwhile services using different payment models, and to target funding services on patients or areas most in need. There is a case for locating funding for primary care within the overall budget of the National Health Insurance and not as discrete government programmes, as this would align new investments with the institutional imperative of reducing longer-term payouts by the National Health Insurance. It would also help foster an operating culture where the national insurer is seen as a financial agent capable of driving system change to improve quality of care and not just a payments clearinghouse.

In the same manner in which the gradual expansion of insurance helped underwrite the development of Korea's hospital sector, an ongoing financial commitment from the National Health Insurance ought to become a major source of financing for the development of a stronger primary care sector. This funding could be modest initially, but over time should be scaled up over time. This would serve as a discipline that locks in a sustained increase in investment in primary care, and as an incentive to drive ongoing policy efforts to contain spending on acute care services.

Developing a workforce for primary care

Even with a commitment to increased funding, Korea's lack of a sufficiently strong base of doctors with training or experience in primary health care is a major stumbling

block to its further expansion. A stronger primary care sector will require a larger, dedicated workforce of primary care professionals. For the longer term, Korea needs to grapple with the question of whether it goes down the path of many other OECD countries that have promoted the training of dedicated physicians who cover the whole gamut of clinical care, or tries to make the most of a more specialised model where paediatricians, internal medicine, and obstetrics and gynaecology, along with support from nurses function as primary care units. While there is no right answer for Korea, going down the former path would require significant changes in medical education and take a long time to engineer. Given the high esteem for specialists, it will be critical to ensure that family medicine becomes a well respected speciality with post-graduate training qualification and strong speciality society.

The majority of new medical graduates in Korea prefer to gain a specialisation. At the same time, independent medical professionals working in primary care often feel the need to deliver basic surgical and inpatient services to maintain their viability. While investment and a more pronounced role in the health system would help enhance the professional status of family physicians, Korea also needs to engender an awareness of the importance of primary care in its medical profession. Providing more medical students with the experience of working in primary care could help impart an understanding of the role and importance of primary care and encourage more people to choose this as a profession.

Policy makers should work with medical associations and universities to introduce a mandatory training rotation in a primary care facility. This requires creating new model primary care practices affiliated to medical schools, since at the moment there is nowhere to train physicians in primary care. Establishing good working models of primary care is the critical first step in training a new workforce. Korea should consider adding ambulatory tracks to paediatric and internal medicine that focus on the provision of primary care-oriented service. A mandatory post-graduate rotation could also bolster the size of the primary care workforce, especially in rural areas where the number of community-based health professionals has been steadily falling in comparison to Seoul. Providing a modest training subsidy would support the development of a training culture in primary care practices across the country, and would most likely have lower supervision costs than the training currently being undertaken in hospitals.

Developing support for primary health care: Professional societies, guidelines, and information for patient self-management

In the longer term, creating a stronger sub-speciality of primary care based in medical schools would help put it on the same footing as other specialities. To raise the prestige of primary care, the current "family medicine" speciality should be a more prominent part of medical school faculties, including its research programmes. There should also be ambulatory sections of other specialities such as internal medicine, paediatrics, and obstetrics and gynaecology. The professional societies would also be responsible for developing a programme of continuing medical education to help convert existing practitioners, particularly Korea's large number of internal medicine and general internists, into primary care specialists. Given the relative lack of prestige for family medicine relative to other specialities, speciality societies are likely to need government support to take on such an enhanced role.

Clinical guidelines would also facilitate the development of a strong system of primary care especially if they were re-enforced by health insurance rules. The high rate

of hospitalisation is partially due to the lack of attention to prevention and the incentives to hospitalise patients. Clinical guidelines would make clear the key preventative interventions that should be taken in primary care, as well as broader clinical pathways for the treatment of complex problems, including the relative roles of primary and secondary care. The guidelines should be based on a systematic review of the literature and adapted to the Korean context. Although there are several different medical and academic institutions developing clinical guidelines, they are not used by public insurance as a means of rationalising clinical pathways. Ideally, a strong primary care speciality society, along with other specialist societies, would play the role of adapting guidelines for both primary care and speciality care to the Korean context. These clinical guidelines could be used as part of the process of continuing medical education for primary care physicians to ensure their adoption and use.

Enhancing patient self-management for chronic diseases should play an important role in strengthening primary care. For diabetes, patients are expected to manage their blood sugar, since good control leads to fewer complications. Patient self-management could be facilitated by primary care facilities offering health education to patients. In many countries, this is done through patient groups co-ordinated with primary care. Korea needs to develop models of patient self-management as part of broader initiative to strengthen primary care. The provision of information ought to extend to the internet, where patients are increasingly seeking information, and it is important that patients receive unbiased information. Korea could look to the example of NHS Choices in the United Kingdom, where patients can access information on diseases and treatment to help them manage their own health.

5.6. A Korean model of primary care: Multi-specialty group practices (polyclinics)

These fundamentals for primary care reform – reforming payment systems, ensuring institutional flexibility and supporting primary health care workers – in themselves are unlikely to be sufficient to ensure the development of a stronger primary health care sector. The OECD work published in *OECD Reviews of Health Care Quality: Korea – Raising Standards* (2012b) recommended that policy makers seek out desirable models of what uniquely Korean approaches to primary health care services should look like and support them. This section builds on the broad approach outlined in the earlier report by providing some potential paths to scale up primary care in Korea.

Encouraging hospitals to vertically integrate may be the optimal policy, but is likely to be difficult to achieve

Given that the centre of gravity in the health care system is in the hospital sector, a possible path to bolstering primary care would be to strengthen the financial interests of hospitals to deliver more primary care. Given Korean interest in the US health system, it is surprising that there has been limited interest in moving towards a model of integrated care, where an organisation receives a capitated payment from the National Health Insurance to manage all of the care of the patients. This type of reform provides incentives for big hospitals to restructure their service delivery model to include stronger primary care. This would require comparatively simple changes to payment methods, or at least experimentation to allow some big hospitals to receive a capitated payment.

While vertical integration and encouraging hospitals to invest downstream has some advantages, there is a risk that it could simply reinforce Korea's hospital-centric health system. With Korea's largest tertiary hospitals accounting for a major share of activity as

well as having a major financial influence in the system, making them responsible for primary care may perversely result in them under-investing in primary care, as it conflicts with their incentive to deliver high-margin acute-care services. This is evident in the some of the large hospitals in Korea which currently offer primary care through clinics located on site but functionally use this as a gateway to more complex services.

Team-based clinics are an appropriate starting point for strengthening primary care services

Nonetheless, making a break from weak family medicine services and a highly fragmented model of specialist services requires changes to the physical infrastructure of health care outside hospitals in Korea. Developing a network of primary health care polyclinics across communities could provide the physical infrastructure needed to encourage health practitioners to work in teams with a community focus. This reflects the experiences of the United Kingdom and Israel (OECD, 2012c), whose strong primary health care is based on a network of easily accessible community-based polyclinics where doctors and other health professionals work together. Shifting primary care towards group practice and locating multiple services – of both a specialist and lifestyle support nature – into one location is also an emerging feature underway or being considered in Australia, Switzerland, Denmark and the United States (known as "medical homes"). As in Korea, many of these countries have a tradition of primary care services delivered through privately practising specialists who are often reimbursed on a fee-for service basis. Policy initiatives have often sought to preserve the private nature of doctors' operations while providing payments to a polyclinic where groups of doctors work or by providing capital grants to subsidise the cost of several doctors consolidating services in one location.

Korea already has the embryo of a national network of primary health care clinics through its municipal public health centres, which provide care to the 2% of the population currently in the medical scheme for the poor. They are also often the hub for health care screening and chronic disease management programmes. As their funding originates from a combination of medical aid, municipal government and funding for special programmes, the capacity and quality of these centres vary considerably across the country. In richer areas, these clinics are often equipped beyond simply providing care to the poor but also to other high needs groups such as the elderly living with chronic diseases. Greater public funding could be provided to systematically add additional chronic services and expand the availability of doctors at these clinics for the broader population. Such an approach has already been trialled in the establishment of new dementia centres that are similar to community health centres.

However, municipal public health centres have numerous problems especially funding. Currently, most public health centres directly employ practitioners on civil service contracts that are inflexible and pay salaries that are lower than available in the private sector doctors. This already poses a challenge for those public health centres that wish to use their resources to get full-time physicians on-site or deliver community services on their behalf. Consequently, public health centres are usually only staffed by part-time physicians, younger nurses and social workers which are a poor model for chronic diseases. Since there is widespread variation across municipalities in funding levels for public health centres, this means that relying on them would lead to wide variations in the quality of care. In general, universal access to primary care should decrease health inequalities and increase social cohesion, but this would lead to greater health inequalities.

The government could provide direct block grants to public health centres to scale up their services to resemble multi-disciplinary group practices (polyclinics). For public health centres to be able to scale up into larger practices, they will need the ability to contract private practitioners at higher payment rates and while being allowing doctors to remain independent practitioners. If contract payments are set at a sufficient level, health centres could induce those currently operating their own practice to practice from public health centres by offering the prospect of a stable pipeline of patients (through referrals from screening and other services already delivered at the public health clinic) and sparing sole practitioners from the overhead and administrative costs of maintaining an independent practice. At a practical level, such a model has been trialled in mental health. The city of Seoul has contracted with a major private hospital to staff the mental health centre as well as a new centre for suicide prevention. Such an approach has also allowed policy makers to overcome the limitations of fee-for-service and to attract full-time physicians to work in the centres.

An alternative approach would be to directly fund multi-specialty group practices (polyclinics through the Health Insurance Corporation). They could provide both capital investment and pay recurrent costs through the fee schedule augmented by a pay for performance scheme. Another option would be to allow private practitioners to use the public clinic's facilities at low (or no) cost from where they can bill the NHI for the patients that they see. This would still offer Korea's substantial number of solo practitioners the opportunity to reduce overhead and administrative costs for of maintaining an independent practice.

However, these team-based clinics ought to be staffed by specialists, not generalists

The model of primary care in Korea is likely to be materially different that in the United Kingdom, Australia, New Zealand, Estonia and Italy. Unlike these countries, Korea does not have a large number of doctors trained as general practitioners, a strong professional identity for general practitioners, and high pay rates for general practitioners relative to specialists. To date, it has been difficult to raise the prestige of doctors that specialise in general practice – both amongst the medical profession and in terms of how they are perceived by consumers.

As highlighted earlier, clinicians working in smaller community clinics in Korea generally do not have a specific specialisation in family medicine and are more likely to be trained in internal medicine, orthopaedics, obstetrics and gynaecology, paediatrics, and ear, nose and throat. Indeed, the number of doctors trained in "family medicine" (broadly equivalent to "general practice") and working in clinics was only 2%. With such low numbers of generalist doctors and a high proportion of specialists working in the community, a major hurdle in establishing generalist primary health care services is the fragmentation of the delivery system. Korea currently has specialist physicians for children, adults and women. A uniquely Korean model of primary care ought to take advantage of this.

A practical policy would be to pursue the development of group practices staffed by multiple specialists. At the most pragmatic level, there are unlikely to be sufficient numbers of doctors trained in family medicine to form the backbone of a national network that provide services at the first point of call. Training such a cadre of doctors with specialisations in family medicine will require a long term commitment between

policy makers, educators and the medical profession, with lead times of 8-10 years before the first cohort of students are able to bolster the primary care workforce.

Multi-disciplinary group practices are also likely to be a better fit with Korean medical culture and patient expectations. Ideally, groups could be formed that included the core sub-specialties of family medicine: paediatrics, internal medicine, and obstetrics and gynaecology at a minimum. The triaging of patients, children, women and other adults, within these group practices is likely to occur on the same basis as occurs today in the United Kingdom, where health clinics are staffed by general practitioners with their own practice preferences.

Without a longstanding culture of valuing (or indeed, recognising) general practitioners, Korean patients are more likely to be amenable to the notion of visiting a specialist. At the same time, location in a common facility puts the onus on doctors to work together to help meet the complex needs of patients, which may require the support of multiple specialists, and makes it physically easier for them to do so. In addition to collaboration, doctors and patients could benefit through the co-location of other health workers such as practice nurses, physiotherapists, dieticians and psychiatrists in the same facility, offering more immediate possibilities to provide a wide array of services to patients in one location, and freeing up doctors to focus on clinical work.

Over time, a multi-specialty polyclinics could absorb new family medicine specialists if the medical profession and the government commit to promoting this a career path for promising medical graduates. Irrespective of workforce planning decisions, getting the organisational structure right offers a more immediate path to a stronger primary health care system than a more fundamental re-engineering of Korea's health workforce to emphasise primary care.

Strengthening primary care in Korea will be a daunting task, but no less daunting than other reforms that Korea has already successfully achieved such as achieving universal access to health insurance; creating a single payor health insurance system; and separating prescribing and dispensing. The heart of the new model of primary care would be multi-specialty polyclinics staffed by private practitioners. They would be paid on a new fee schedule with higher payments for preventative services, counselling, and management of chronic diseases. This would complemented by a P4P scheme to reward high quality primary care. Medical schools would create model primary care polyclinics to train future primary care physicians. With these reforms, Korea could develop a health system that is more efficient, with fewer avoidable hospital admissions, that achieves better outcomes for chronic diseases, decreases health inequalities, and improves social cohesion.

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