3 More effective and patient-centred care

This chapter turns to the question of whether primary health care is delivering effective and responsive care. The chapter shows that as the first point of contact with the health care system, primary health care teams are in a unique position to advise patients on health behaviour, to administer preventive care, and to control the progress of chronic conditions. This is ever more needed as citizen expectations about services are high, societies are ageing and complex cases are costly. The chapter then shows that strong evidence suggests preventive care is inefficient across OECD countries and there are break-downs in communication between primary health care and other sectors of the health care system. The chapter concludes by describing the policy levers needed to encourage both the effectiveness and responsiveness of primary health care. These range from new models of organising services based on a team or network of providers, changes to the incentives that determine clinical practice, better measurements of quality and outcomes of primary health care, to implementing health coaching and counselling.

Key Findings

- Primary health care has great potential to improve population health and responsiveness of care. As shown earlier, the main functions of primary health care – to be the first point of contact, person and community focused, comprehensive, and co-ordinated – make it ideally placed to seek out patients for preventive treatment before they get sick and to better manage chronic conditions over time.
- Recent data show that currently preventive care is not delivered effectively and too many people experience problems of care co-ordination between primary health care, specialists and hospitals:
  - in 2014, one in four patients suffering from certain chronic conditions did not receive any of the recommended preventive tests in the previous 12 months
  - the involvement of general practice in preventive activities has decreased by 13% over the past two decades, while participation in treatment has increased
  - in 11 OECD countries surveyed in 2016, between 29% and 51% of people reported having experienced problems of care co-ordination in the health service.
- Developing new models of primary health care delivery based on teams and networks, backed by portable electronic health records (EHR) and embracing new ways of communicating, can reap the greatest gains for population health outcomes. Multi-disciplinary team practices, providing comprehensive health services and steering population health management, enable preventive work to be more proactive. Such models allow for a co-ordinated approach spanning primary health care, community services, hospital care and social care. Australia, Canada and the United States are at the leading edge of these practices.
- Implementing team-based delivery of primary health care is not a simple undertaking given the traditional divisions of professional silos, and the fact that across many OECD countries, primary health care practices are owned by physicians themselves and operate as small enterprises. Physicians who want to create or migrate into group practices may need effective support, including assistance with the preparation of business plans and access to loans, the selection and training of support staff, drafting of employment contracts, and the implementation of technological solutions. In Austria, the strong focus on practical implementation is the guiding element in the current reform process that aims to establish primary health care units.
- Introducing new forms of remuneration in combination with the existing more traditional payment mechanisms can provide incentives for providers to increase care co-ordination and disease prevention activities. Bundled payments for chronic conditions (as seen in Australia, Canada and the Netherlands), and population-based financing with a shared saving approach (as seen in Germany and the United States) are promising initiatives.
- Collecting patient-reported indicators in primary health care can help evaluate improvements in the quality and responsiveness of that care, as seen with the United States' Consumer Assessment of Health Care Providers and Systems surveys and England's GP Patient survey, which are both used for regulating, monitoring and improving primary health care.
- Enabling patients and primary health care staff to co-design primary health care services through, for example, in-depth interviewing, focus groups or group discussions involving both patients and staff, is an effective option to improve quality and responsiveness, as seen in Australia in the case of mental health services.
- Individual or group-based counselling in primary health care has the potential to support patient self-management of chronic conditions and to manage the wider social and lifestyle aspects of

their health in the long term. Experience of counselling in Dutch primary health care has been effective in achieving and maintaining healthier lifestyle behaviours.

- Online self-management services – for example, patient-provider portals, smartphone applications or Internet-based monitoring – have been found to increase patient-provider communication, improve adherence to treatment regimens and lifestyle changes, and improve self-monitoring practices. Finland's e-service platform can guide other OECD countries as it successfully integrates health information into a common hub of personal health service information, results and advice.
- Health care vouchers, personal health budgets and conditional cash transfers could also be applied to increase patient choice over their health and health care and to change patient's behaviour. In the United States, conditional cash transfers led to positive improvement in the health of poorer families, notably through greater use of preventive health services.

3.1. Good quality primary health care improves health system responsiveness, makes health care more patient-centred and can improve health outcomes for the population

From a population health perspective there is a convincing body of evidence supporting the advantages of a well-developed primary health care system. Strong primary health care systems (see Chapter 1 for a full definition) have been associated with better health outcomes. The underlying hypothesis is that the main functions of primary health care – first point of contact with the health service, to be patient and community focused, offer a comprehensive and co-ordinated service – make the primary health care system better placed to provide preventive activities (both primary and secondary prevention) and to better manage chronic conditions over time (tertiary prevention). Primary health care is in a unique position to understand a patient's medical history and current needs in order to identify patients who are at risk of disease and to seek out patients for preventive treatment before they get sick.

3.1.1. Primary health care improves population health outcomes, health system responsiveness and patient centredness

At an international level, Macinko, Starfield, and Shi (2003) first explored the positive contribution of primary health care on health in 18 OECD countries. The findings from the quantitative analysis show that the stronger a country's primary health care orientation, the higher the population health outcomes. A positive relationship was confirmed for several health outcomes (including all-cause mortality rates, premature mortality, and cause-specific premature mortality from asthma and bronchitis, emphysema and pneumonia, cardiovascular disease, and heart disease) (Macinko, Starfield and Shi, 2003[1]). This held true even after controlling for various system and population characteristics (such as GDP per capita, total physicians per 1 000 population, percentage of elderly people, average number of ambulatory care visits, per capita income, and lifestyle factors). Macinko, Starfield and Erinosho (2009), in their review of 36 studies looking at the impact of primary health care on health outcomes, confirmed this positive relationship in the case of low- and middle-income countries. Greater availability and improved access to primary health care, was particularly associated with reduced infant and child mortality (MacInko, Starfield and Erinosho, 2009[2]).

In line with these findings, Kringos et. al. (2013) have shown more recently that the structure, co-ordination and comprehensiveness of primary health care were positively associated with the health of people with ischemic heart diseases, cerebrovascular diseases and other chronic conditions, including asthma, bronchitis and emphysema (Kringos et al., 2013[3]). In particular, a strong primary health care structure (as

measured by the national governance, the economic conditions underpinning primary health care and workforce development) was associated with fewer potential deaths due to ischemic heart disease and cerebrovascular diseases, while better care co-ordination was associated with fewer potential deaths due to chronic asthma, bronchitis, and emphysema.

Several other studies have shown that countries with strong primary health care performed better on other major aspects of health, including patients with complex care needs. Hansen et al (2015) found that subjective assessments of patient health are better for people living in countries with a strong primary health care structure and good care co-ordination. In addition, good accessibility to primary health care helps reduce the risk of having untreated medical conditions (Hansen et al., 2015[4]). A positive relationship between strong primary health care and health outcomes was also confirmed among people with multiple morbidities. These people have a higher chance of having good or very good health if they live in a country with a strong primary health care structure, high continuity of care and a comprehensive primary health care system. Among all primary health care characteristics, comprehensiveness of care was the most influential: people with multiple morbidities were more likely to report having good health, less likely to have limitations in daily functioning and to have undergone long-term medical treatment, if they live in a country with a more comprehensive system of care. This result suggests that offering a broad set of services is especially beneficial for the needs of patients with complex health problems. Continuity of primary health care also appeared beneficial for the health of people with conditions particularly sensitive to management in primary health care. This latter result indicates the importance of the relationship between patients and primary health care teams, managing and communicating health information, and providing care management. The review by Sans-Corrales et al (2006) also supports this conclusion: continuity of care is consistently associated with better health outcomes, such as less back pain, fewer infarcts, liver pathologies, and stomach ulcers (Sans-Corrales et al., 2006[5]). There is also strong evidence that primary health care interventions have a positive impact on measures of mental health indicators, including depression and anxiety (Conejo-Cerón et al., 2017[6]; Trivedi, 2017[7]).

In addition to better population outcomes, there is evidence that strong primary health care also improves health system responsiveness and patient-centredness. A study that included 12 OECD countries and 5 other countries in Latin America and the Caribbean found that, on average, patients that had a regular place of care, where care providers were familiar with their medical history and it was easy to communicate, and help was given to co-ordinate care, were 12.1% less likely to say that their health system needs major changes, and 29.2% more likely to perceive their usual provider as providing high quality care[1] (Guanais et al., 2019[8]). Moreover, patients who had a physician that explained things in a way that was easy to understand and that spent enough time with them during consultations were 8.6% less likely to agree that their health system needs major changes and 69.6% more likely to perceive their usual provider as providing high quality care.

Very recently, Levine, Landon and Linder (2019) have quantified the potential benefit of primary health care with respect to receipt of high-value care and experience with care delivery in the United States. Compared to adults without primary health care, adults with primary health care were more likely to have routine preventive care and to receive high value-care, including high-value cancer screening, recommended diagnostic and preventive testing, and high-value counselling. In addition, adults with primary health care were also more likely to report better access to care and experience with care delivery (Levine, Landon and Linder, 2019[9]). It makes no doubt that primary health care can offer high value, responsive and patient-centred care.

3.1.2. Primary health care is best placed to seek out patients for preventive treatment before they get sick

The role of primary health care in playing an informative, supportive and facilitating function in the uptake of preventive activities is not to be underestimated. A handful of studies provide evidence that primary

health care is best placed to carry out preventive interventions given that their focus is on the entire person and not limited to any specific disease or organ system. This conclusion has been especially confirmed for health counselling regarding smoking cessation, immunisations and screening (Shi and Starfield, 2005[10]; Saver, 2002[11]; Sans-Corrales et al., 2006[5]; Hartley, 2002[12]).

In the United States, several studies have suggested a positive relationship between the supply of primary health care physicians and the uptake of preventive care. Shi (2005) and Shi and Starfield (2005) have shown that those states with higher primary health care physician to population ratios, report significantly lower smoking and obesity rates than states with lower ratios of primary health care physicians to population (Shi, 2005[13]; Shi and Starfield, 2005[10]). This suggests that states with larger primary health care system structures have more effective approaches to disease prevention. This is also confirmed by Saver (2002) who showed a positive association between strong primary health care and smoking cessation and immunisation. In particular, care continuity with primary health care physicians was significantly associated with an increased likelihood of smoking cessation and of influenza immunisation. Hartley (2002) also found that care continuity is associated with more effective implementation of preventive activities. Strong primary health care was associated with having a better diet, smoking cessation, vaccination uptake and reduced alcohol consumption. Sans Corrales et al (2006), in their review of 20 studies, concluded that people receiving care from primary health care physicians are more likely to receive effective preventive services and more generic approaches to prevention, which can result in a reduction in morbidity and mortality. The review by Starfield, Shi, Macinko (2005) supports this conclusion: people receiving care from primary health care physicians are more likely to receive recommended preventive services, including pap smears and being up to date on screening and immunisations (Starfield, Shi and Macinko, 2005[14]). Strong primary health care might make the difference by informing the population about preventive care and facilitating access to these services.

The positive relationship between the supply of primary health care and preventive activities was also confirmed for early detection of breast cancer, colon cancer and melanoma (Campbell et al., 2003[15]; Ferrante, Gonzalez and Roetzheim, 2000[16]; Roetzhiem, RG; Pal, N; Gonzalez, EC; Ferrante, JM; Van Durme, 1999[17]). These findings suggest that primary health care physicians (or the broader primary health care team) can have an important impact on the stage at which a disease is diagnosed by performing clinical examinations and by recommending screening programmes to their patients. Although primary health care physicians do not perform screening in many European countries because of the introduction of population-based programmes, the role of the primary health care team can be significant in having a supportive, informative and facilitating role (Yano et al., 2007[18]; Triantafillidis et al., 2017[19]).

3.1.3. Greater investment in primary health care increases the uptake of prevention activities across OECD countries

As shown by previous research, being first point of contact, offering person and community focus with comprehensive and co-ordinated care, are important characteristics of primary health care systems which offer value to population health. Consistent with previous work (Sans-Corrales et al., 2006[5]; Starfield, Shi and Macinko, 2005[14]), new OECD analysis shows that investment in primary health care is associated with more effective implementation of preventive activities (see Box 3.1 for the data and methodology).

In this section, the average relationship between primary health care resources and primary health care performance is estimated. The hypothesis is that, on average, investment in the primary health care sector leads to greater primary health care performance through greater uptake of preventive interventions. Additional investment may, for example, enable more health professionals to be recruited which, in turn, may lead to better patient access. Additional investment may also improve the quality of care through, for example, new training opportunities in communication, prevention activities or through a greater use of new technologies and information infrastructure (Triantafillidis et al., 2017[19])

Analysis of data across OECD countries for the period 2005 to 2015 shows that a 1% increase in primary health care expenditure is associated with a 0.34% increase in cervical screening participation and a 0.52% increase in breast cancer screening participation (see Table 3.1).

These findings confirm results from previous studies. They suggest that investment in the primary health care sector leads to greater uptake of preventive interventions through, for example, increased recruitment, new training opportunities or greater use of new technologies. With such opportunities, the role of the primary health care team leads to greater uptake of preventive activities, which in turn is expected to improve population health outcomes.

Table 3.1. Impact of primary health care spending on cervical and breast cancer screening uptake in the OECD, 2005-15

	Cervical cancer screening	Breast cancer screening
Primary health care expenditure (USD PPP, per capita, log)	0.3373*** (0.0847)	0.5183*** (0.1176)

Note: *** signifies a p value <0.01. The analysis is based on multi-level modelling econometric techniques. Full models control for risk factors, demographic factors, hospital resources and time trends. Standard errors are in brackets. Full results are available upon request.
Source: OECD estimates based OECD Health Statistics 2005-15, https://doi.org/10.1787/health-data-en.

Box 3.1. Data and methodology used to estimate the relationship between primary health care resources and primary health care performance

Data

The analysis combines data from the following sources: (i) OECD Health Statistics and (ii) the Quality and Costs of Primary Care (QALICOPC) study.

OECD Health Statistics

OECD Health Statistics 2017 offers the most comprehensive source of comparable international statistics on health and health systems across OECD countries. It provides rich, national level data for a range of variables that were utilised in this analysis, including primary health care expenditure, primary health care quality outcomes, as well as a range of control variables, such as risk factors and demographic information (see table below).

The QUALICOPC study

The QUALICOPC study collected data on primary health care systems in 34 countries between October 2011 and December 2013. In Europe, 26 EU Member States were included in the project, as well as Iceland, Norway, Turkey, Switzerland and the Republic of North Macedonia. Research institutes from Australia, Canada and New Zealand participated in the collection of data in these countries. The study conducted surveys in each country among samples of general practitioners (GPs) and their patients. The data provide insights into the professional behaviour of GPs and their patients' expectations and experiences. The limitation of using the QUALICOPC data relates to the time difference compared with OECD Health Statistics.

Dependant and independent variables used

	Dependant variables	Key explanatory variables (OECD Health Statistics)	Time varying control variables	Non-time varying variables (health system characteristics[1])
Sources	OECD Health Statistics	OECD Health Statistics	OECD Health Statistics	QUALICOPC data
Name of variables	Breast cancer screening rate	Primary health care expenditure (per capita, USD PPP)	Number of generalist medical practitioners (per 1 000 population)	Health promotion scale
	Cervical cancer screening rate		Per capita GDP	Continuity of care scale
			Gini Coefficient	Collaboration of care scale
			Percentage of the population aged over 65 years	Responsiveness scale
			The number of hospital beds	
			Lifestyle variables (smoking rates, obesity rates and average alcohol consumption)	
			Year	

1. Four country-level characteristics (health promotion, continuity of care, collaboration of care and responsiveness) are used in the analysis to explain why the relationship between primary health care expenditures and screening varies across OECD countries. These characteristics are time invariant in the estimation, while they are not in reality. This is a recognised limitation of the work.

Method

The analysis is based on multi-level modelling econometric techniques. Such models are commonly used in quantitative analysis, particularly when the data involve units at different "levels" of observation. Multi-level modelling can be used when there are repeated observations over time for multiple countries. Analysis of this type of data can help disentangle "within effects" (variations over time) and "between effects" (variation between countries). This is the nature of the data used in the current analysis. The approach is based on previous work (Or, Wang and Jamison, 2005[20]; OECD, 2015[21]). The analysis utilises the longitudinal nature of the data, and in doing so, estimates the OECD average relationship between primary health care resources and performance, as well as individual country trends.

Presented here are only the results of the first stage analysis, which examines the relationship between health care resources and performance, after controlling for a range of health and non-health factors. The model can be characterised as follows:

$$y_{it} = \beta_{0i} + \beta_{1i} I_{it} + \alpha_p \boldsymbol{x}_{pit} + e_{it}$$

$$\beta_{0i} = \tau_0 + \mu_{0i}$$

$$\beta_{1i} = \tau_1 + \mu_{1i}$$

where y_{it} represents cervical or breast cancer screening for country *i* at time period *t*. The variable I_{it} represents primary health care expenditure that varies by country and over time. The vector x is a set of ρ control variables that can vary over time. Both the intercept β_{0i} and the slope coefficients β_{1i} vary by country. e_{it} is the residual error term for the *ith* country in year *t* and is assumed to be normally distributed with a mean of zero. Results presented in Table 3.1 focus on the estimates of β_{1i}.

3.2. Disease prevention and care co-ordination are insufficient in a context of rising health care needs

Despite evidence demonstrating the contribution of primary health care to population health outcomes and health system responsiveness, the current organisation of primary health care is not achieving the expected results.

In recent decades, an epidemiological transition has taken place worldwide. In most countries, chronic conditions are now the leading cause of disability-adjusted life years lost and infectious diseases continue to pose a threat to populations across OECD countries. As the first point of contact with the health care system, and as a trusted source of information, primary health care teams are in a unique position to advise patients on lifestyles and health behaviour, to administer preventive care, and to manage and control the progress of chronic conditions. However, recent international data show that too many patients with chronic conditions do not receive the recommended preventive care and that there are significant problems with co-ordination of care between primary health care teams, specialists, and hospitals.

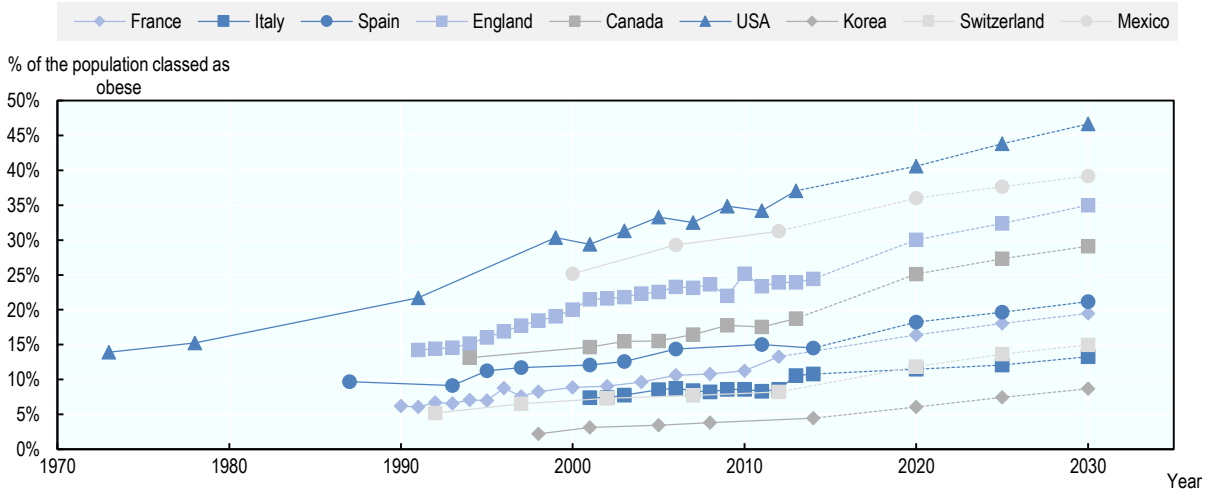
3.2.1. Chronic conditions are on the rise and the risk of infectious diseases continues to pose a threat to populations

Disease prevention and management is becoming increasingly important in ageing societies with a growing number of people living with one or more chronic diseases, such as cardiovascular disease, musculoskeletal disorders, cancer or diabetes. The share of the population aged 65 years and over is expected to grow by more than 60% across OECD countries, from 17.3% in 2017 to 28% by 2050. While it is a remarkable sign of progress that life expectancy for people at age 65 continues to steadily increase, for many people, most of the remaining years of life after that age are lived with health problems and disabilities which decrease quality of life and generate costs to health systems. An elderly population can be expected to have more complex health care needs, more chronic conditions and often multiple chronic conditions.

In addition to ageing, the rise of chronic diseases is also associated with persistent exposure to behavioural risk factors in some OECD countries, such as smoking, alcohol consumption, unhealthy diets and physical inactivity. Obesity rates have, for example, been on the rise in recent decades. In 2015, on average, nearly one in every five adults was obese in OECD countries, up from around one in seven in 2000. OECD countries with historically high rates of obesity are Canada, Chile, Mexico, the United Kingdom and the United States (OECD, 2017[22]).

OECD projections also show a steady increase in obesity rates until at least 2030 (Figure 3.1). Obesity levels are expected to be particularly high in the United States, Mexico and England, where 47%, 39% and 35% of the population, respectively, are projected to be obese in 2030. The level of obesity in France is projected to nearly match that of Spain, at 21% in 2030. Obesity rates are projected to increase at a faster pace in Korea and Switzerland, where rates have been historically low.

Figure 3.1. Evolution and projection of obesity rates in selected OECD countries, 1990-2030



Note: Obesity defined as BMI≥30kg/m². OECD projections assume that BMI will continue to rise as a linear function of time.
Source: OECD (2017[22]), "Obesity Update", www.oecd.org/health/obesity-update.htm.

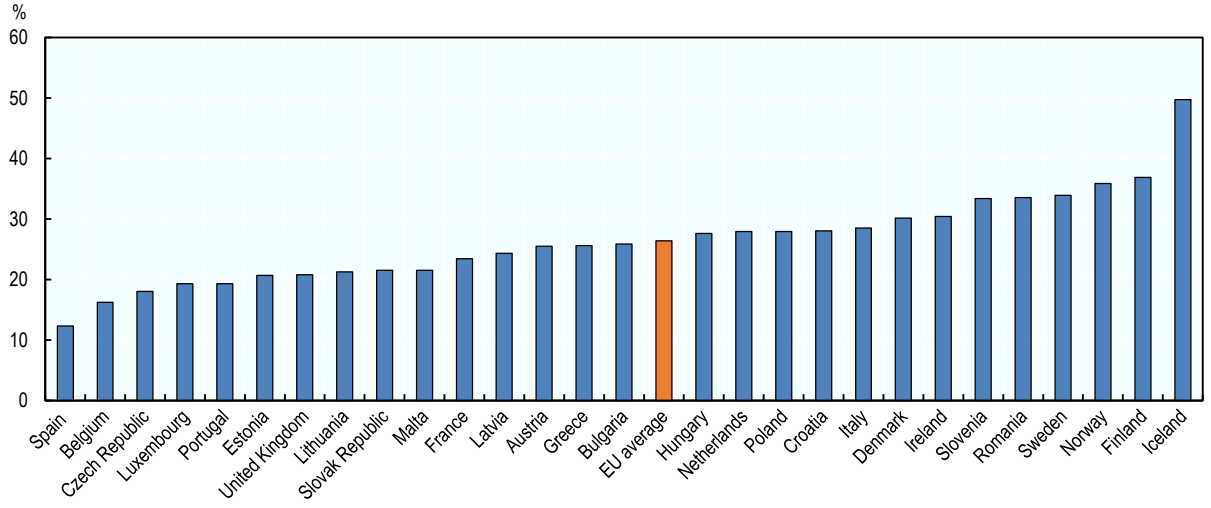
At the same time, some communicable diseases continue to pose a threat to populations globally. There are, for example, recurrent outbreaks of infectious diseases, such as recent measles outbreaks in unvaccinated populations in the United States and some European countries. In the United States, the annual number of reported measles cases went from 37 in 2004 to 667 in 2014 and 704 cases in the first half of 2019 (Patel et al., 2019[23]). In Europe, measles cases tripled between 2017 and 2018, rising from 25 863 in 2017 to more than 82 000 in 2018 (Thornton, 2019[24]). Over 90% of cases were in 10 countries, including France, Italy and Greece. Worldwide, the WHO reported that there has been a 300% increase in the number of measles cases in the first three months of 2019 (WHO, 2019[25]). A significant factor contributing to the outbreaks is misinformation within communities about the safety of vaccines. The primary health care sector has a greater role to play to increase vaccination rates by improving information to patients (Jacobson Vann et al., 2018[26]; EC, 2018[27]).

3.2.2. The involvement of primary health care practice in prevention activities is too low

As shown by the empirical literature, primary health care teams are in a unique position to meet the increasing health needs of an ageing population, a proportion of which suffer from chronic diseases, and to prevent the spread of infectious diseases. The primary health care team is expected to advise patients on healthy lifestyles and behaviour, to administer screening tests and other preventive care, and to manage and control the progress of chronic conditions.

However, recent data show that too many patients with chronic conditions do not receive the recommended preventive care. In 2014, across EU countries, 26% of patients suffering from certain chronic conditions did not receive any of the recommended preventive tests in the previous 12 months, this proportion was highest in Iceland reaching nearly 50% (Figure 3.2). Finland, Norway, Sweden, Romania, and Slovenia are also among countries where a high share (more than one-third) of people with chronic conditions did not receive the recommended tests in the previous 12 months, while Spain, Belgium, the Czech Republic, Luxembourg and Portugal are at the lower end of the scale (less than 20% of people with chronic conditions did not receive the recommended tests in the previous 12 months).

Figure 3.2. One-quarter of patients suffering from chronic conditions in EU countries did not receive any preventive tests in the past 12 months, 2014



Note: The data refer to the proportion of people suffering from hypertension, myocardial infarction (or chronic consequences of myocardial infarction), stroke (or chronic consequences of stroke) or diabetes who did not receive any blood pressure measurement, blood sugar measurement or blood cholesterol measurement in the previous 12 months. Data corresponds to the year 2014, in which the United Kingdom was member of the European Union and therefore part of the EU average.
Source: OECD estimates based on EHIS-2.

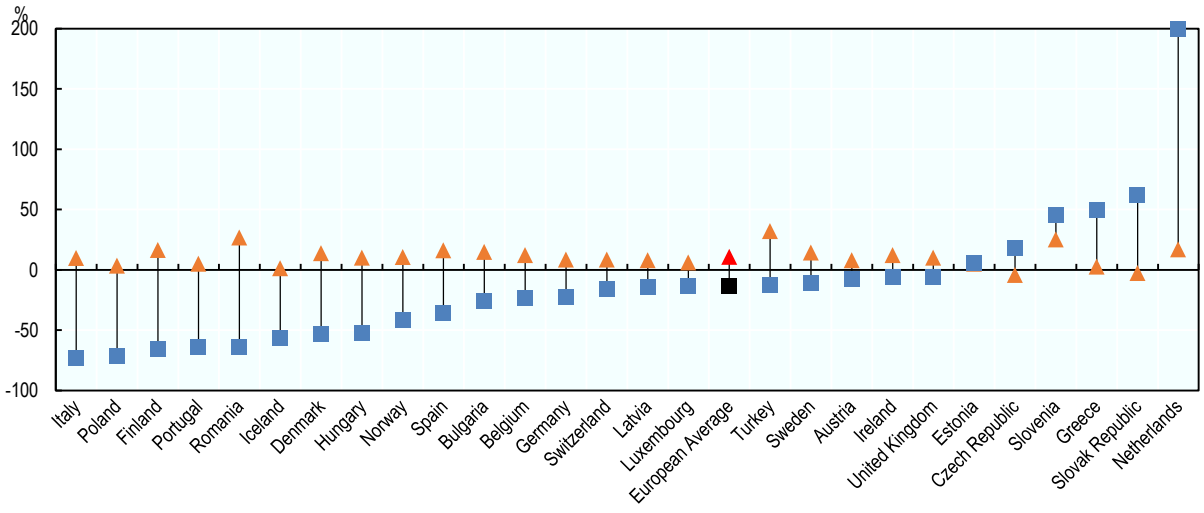
In line with these findings, previous work suggests a decreased involvement in preventive care by primary health care teams (Figure 3.3) (Schäfer et al., 2016[28]). The involvement of general practice in preventive activities (including the measurement of blood pressure, the measurement of cholesterol, and providing health education) has decreased by 13% on average over the same period (Schäfer et al., 2016[28]). Italy, Poland, Finland, Portugal, Romania, Iceland, Denmark and Hungary saw the most significant decreases of more than 50% (Figure 3.3). The Netherlands[2], the Slovak Republic, Greece, Slovenia, the Czech Republic and Estonia are exceptions as they show relatively large increases in preventive activities.

Health services related to treatment of diseases have intensified in almost all European countries, except for the Czech Republic and the Slovak Republic. The increase in GP involvement in treatment of disease is particularly marked in Turkey (+32%), Romania (+26.7%) and Slovenia (+25.2). Under current conditions, additional participation in treatment may be one of the reasons why preventive care is not being delivered properly.

Physicians lack of time and obstacles in reimbursement arrangements are important factors hindering the implementation of preventive interventions in primary health care settings (Yarnall et al., 2003[29]; Geense et al., 2013[30]). Delivery of health education and disease prevention consume physician time. Evidence shows that while time spent in GP office visits has increased over the past decade, physicians continue to have difficulties in finding the time to perform preventive services. In the United States, Yarnall et al (2003) demonstrated that it is not feasible for physicians to deliver all the services recommended by the US Preventive Services Task Force to a representative panel of patients. More recently, Luquis and Paz (2015) showed that family physicians acknowledge that they could have an important role in providing health promotion, disease prevention and offering behaviour counselling. However, heavy workload related to paperwork and the use of EHR (as demonstrated in Chapter 2) and lack of time, are the most important factors hindering their ability to provide these services (Luquis and Paz, 2015[31]).

Figure 3.3. Involvement of primary health care practice in preventive activities has decreased by 13% on average over the past two decades

% relative change in disease treatment (▲) and in prevention (■) between 1993 and 2012



Note: Involvement in prevention includes the measurement of blood pressure, the measurement of cholesterol, and providing health education.
Source: Adapted from Schäfer et al (2016[28]), "Two decades of change in European general practice service profiles: Conditions associated with the developments in 28 countries between 1993 and 2012", https://doi.org/10.3109/02813432.2015.1132887.

3.2.3. Lack of care co-ordination between primary health care teams, specialists and hospitals is common across OECD countries

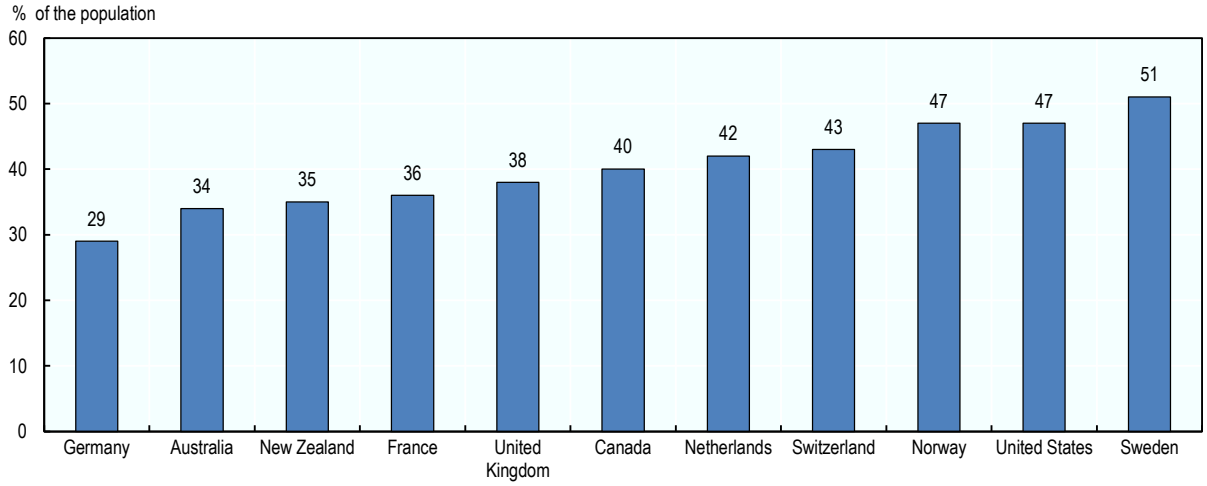
Co-ordination of care corresponds to an important dimension of patient-centred care (Santana et al., 2019[32]). Care co-ordination consists of organising patient care activities and sharing information among all providers to achieve safer and more effective care (WHO, 2018[33]). This requires a good flow of information and consistency of decisions across the different levels of care in the health system, including primary health care settings, specialist settings and hospitals.

For patients, uncoordinated care means duplication of information and diagnostic tests, which can also lead to adverse effects, particularly when there are poor transitions between hospital discharge and primary health care (Couturier, Carrat and Hejblum, 2016[34]). Fragmented, uncoordinated care is associated with lower care quality, leading to avoidable hospital admissions and higher health care costs (Frandsen et al., 2015[35]; Schneider et al., 2016[36]). Uncoordinated care is a particular problem for people with chronic conditions that require care and support, many of whom have multiple conditions associated with complex social needs (Frandsen et al., 2015[35]).

Evidence from patient-reported data indicates that there are high levels of care co-ordination problems between primary health care, specialists and hospitals. Figure 3.4 shows that between 29% and 51% of people surveyed in 11 OECD countries in 2016, reported having experienced problems of care co-ordination, which refers to: medical tests not being available at the time of appointment or that duplicate tests were made; specialist did not have basic information from GP or GP not informed about specialist care; and conflicting information from different providers. In addition, Figure 3.5 shows that problems in the flow of information between primary health care and specialist care explain a good part of these problems of co-ordination. Between 8% and 20% of people in these countries report that specialists did not have basic information or test results from their GP.

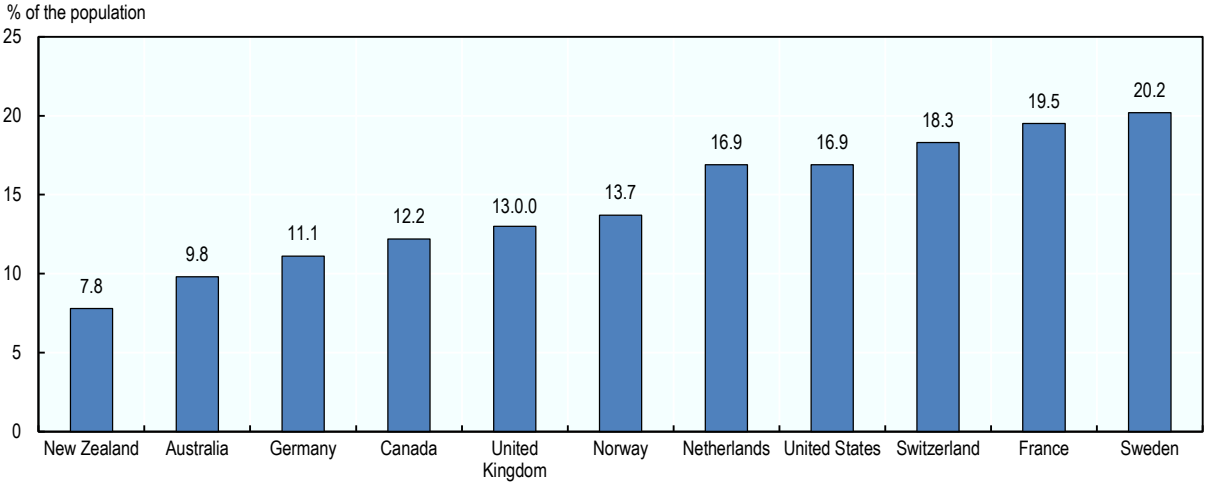
The recent synthesis of 21 papers published in peer-reviewed journals based on the international QUALICOPC dataset show that there is also room to improve the responsiveness of primary health care (Schäfer et al., 2019[37]). In two-thirds of EU countries, evidence shows a need to have more comprehensive consultations where multiple problems can be discussed during one consultation.

Figure 3.4. Problems with care co-ordination between different health care professionals are common across OECD countries, 2016



Note: Care co-ordination problems are defined as: test results/records not being available at appointment or duplicate tests ordered; specialist lacked medical history or regular doctor not informed about specialist care; and/or received conflicting information from different doctors or health care professionals in the past two years. The Swedish response rate in the Commonwealth Fund International Health Policy Survey is low, so cross-country comparability is low. The proportions are controlled for age, gender and health status.
Source: The Commonwealth Fund International Health Policy Survey 2016.

Figure 3.5. Basic information or test results from general practitioners not communicated to specialists, 2016



Note: The Swedish response rate in the Commonwealth Fund International Health Policy Survey is low, so cross-country comparability is low. The proportions are controlled for age, gender and health status.
Source: The Commonwealth Fund International Health Policy Survey 2016.

3.3. Policy options to encourage greater effectiveness and responsiveness

This section looks at key policy levers to encourage effectiveness and responsiveness of primary health care systems. Policy options are divided into two categories: actions to improve prevention and care co-ordination, and those supporting greater self-management and responsiveness of primary health care[3].

A broad set of policy options have the potential to encourage more prevention and care co-ordination. Structural changes in organisation are foremost needed to shift from the traditional solo-practice primary health care model to a proactive, preventive and participatory approach. More teamwork between doctors and other primary health care professionals, backed by portable EHR, is required to improve comprehensiveness and care co-ordination. Changes to the incentives that determine the priorities of clinical practice would also support better care co-ordination, notably through bundled payments and population-based payments.

Promising initiatives to achieve greater responsiveness of primary health care include improving the measurement of quality and outcomes of primary health care (notably those reported by patients themselves), implementing health coaching and counselling, and exploring co-design for primary health care services to ensure people have an equal level of power relative to other health professionals. The potential of digital technologies should also be harnessed to provide personalised care and to empower users to live healthier lifestyles.

3.3.1. Improving disease prevention and care co-ordination

New models of people-centred primary health care delivery based on teams and networks deliver more co-ordinated and integrated care

Invest in better organisation to shift away from the reactive solo-practice primary health care models

In response to the growing complexity of health care needs, many OECD countries have intensified efforts to improve the comprehensiveness and the integration of the services provided within primary health care. Developing new models of primary health care delivery based on teams and networks is both a matter of striving for better health outcomes and an economic necessity:

- From a **population health perspective**, people-centred primary health care models based on teams and networks are expected to better meet population health needs by offering both medical and social services (Borgermans et al., 2018[38]). They have a higher capacity than reactive solo-practices to meet patient needs by offering a broad range of health care and social services. People often have several risk factors and suffer from more than one chronic condition, individuals present multiple health, psychological and social needs. This gives an argument to treat multi-morbidity and complex needs in a single and integrated framework of care provided by a diverse range of primary health care clinicians, technicians and allied health personnel (Jakab et al., 2018[39]). Team-based models or networks of primary health care providers are found to improve the comprehensiveness, co-ordination and integration of care (Schottenfeld et al., 2016[40]). Organisation based on teams or networks of primary health care providers, who can still work in solo-practice, is the best way to encourage communication and co-ordination between health care professionals.
- From an **economic perspective**, people-centred primary health care models based on teams and networks are found to offer economies of scale (Mousquès, 2011[41]). Integrating the primary health care workforce within a single organisation lowers transaction costs and reduces the health production cost because of shared use of inputs, such as equipment, human resources, and ICT, which also increases technical efficiency.

The 2018 OECD Policy Survey on the Future of Primary Care indicates that new models of primary health care delivery are being developed in 17 OECD countries (see Table 3.2). Models of care are expected to steer patients from immediate access to primary health care services for initial treatment to a continuous relationship with the primary health care team when needs become more complex. Most often, patients are split into groups allowing services to adapt to meet their particular social and medical needs. These new models of primary health care organisation often meet the following four characteristics:

- **Multi-disciplinary practices or interprofessional practices** with a different mix of primary health care professionals, different models of teamwork and different target populations (for example as seen in Australia, Canada, the United Kingdom and the United States). The policy survey indicates that there are a variety of existing models in the primary health care setting, with different combinations of GPs, family physicians, registered and advanced nurses, community pharmacists, psychologists, nutritionists, health counsellors, and non-clinical support staff, such as care co-ordinators or case managers.
- **Comprehensive health services in the community**, encompassing a range of services from disease prevention and health promotion, curative services, rehabilitation and management of chronic diseases, to support for self-management of chronic conditions (for example in Costa Rica). Care co-ordination between the care team is key to ensuring the appropriate care is provided at the appropriate place. This should favour the early detection of disease, reduce the exacerbation of disease, avoid duplication of services, and increase provider and patient satisfaction.
- **Population health management**, generally based on risk stratification using sophisticated IT systems (for example in Canada and Spain). Most patients will not require the capacities of a fully comprehensive primary health care team, it is therefore important to make sure that the composition of the primary health care team matches different levels of patient needs. The population health management approach helps teams understand the health and risk profiles of the community. It is increasingly used to implement proactive management of individuals and communities. Patients are stratified to identify opportunities for intervention before the occurrence of any adverse outcomes for individual health status. Patients are then grouped according to their health needs, and the support they receive ranges from those in good health, for whom the appropriate interventions are health promotion and screening, to those requiring ongoing interaction with the primary health care team because of complex needs. In Nova Scotia (Canada) for example, the planning for primary health care services is based on population need, where need is informed by data regarding material and psychosocial deprivation, provider-to-population ratios and population demographics and health status. It enables to consider variations across communities (e.g. employment and income, education, access to family physicians, material deprivation, health behaviours, emergency department visits) and supports strategic resource allocation for primary health care teams.
- **Engagement of patients in shared decision making,** (for example as seen in Israel). Consistent with a people-centred approach, team-based primary health care views patients as knowledgeable partners in their own care, and incorporates, as much as possible, their values, desires and preferences.

In most countries, integrated models of primary health care are community based to offer both medical and social services to patients having multiple chronic diseases and complex social needs, for example regarding food, housing, or substance abuse. Such integration between health and social care in the community goes beyond traditional health care services to address social determinants of health (see also Chapter 4). In addition, mobilising health and social care in the community enables the delivery of more efficient care, reducing hospital discharge delays and hospital readmissions (see also Chapter 2).

Table 3.2. New models of primary health care delivery have been established in 17 countries

Panel A. Name of primary health care organisations across OECD countries	
Countries	**Name of the primary health care organisation recently established**
Australia	Health Care Homes; Primary Health Networks
Austria	Primary care units
Canada	My Health Teams working with community health centres
Costa Rica	Basic Teams of Comprehensive Health Care (EBAIS)
Estonia	Primary care centres
France	Centres de Santé, Communautés Professionnelles Territoriales de Santé
Greece	Primary care facilities
Ireland	Primary care centres
Italy	Complex Primary Care Units (UCCPs)
Mexico	Health Centres with Extended Services
Norway	Intermediate care facilities
Slovak Republic	Integrated Primary care Centres
Slovenia	Primary care centres
Switzerland	Ambulatory Network
Sweden	Primary care centres
Turkey	Healthy Life Centres
United States	Patient-Centred Medical Home and Comprehensive Primary Care Plus
Panel B. Examples of services delivered and health professionals included	
Examples of services delivered	**Examples of health professionals included**
Prevention	General practitioners or family physicians
Health education	Registered or advanced nurses
Patient education	Community pharmacists
Self-management support	Psychologists
Curative services	Nutritionists
Disease management	Social workers
Specialist referral	Health counsellors
Care co-ordination	Other allied health professionals

Note: There is a lot of variation on the degree to which these health care services are delivered, and also a large heterogeneity in the combinations of health professionals included.
Source: OECD (2018[42]), Policy Survey on the Future of Primary Care.

Primary health care delivery based on teams or networks allows for a co-ordinated approach spanning primary health care, community services, hospital care and social care

Among the countries developing new models of primary health care delivery, the United States (with the Patient-Centered Medical Home, and the more recent Comprehensive Primary Care Plus), Australia (with Health Care Homes and Primary Health Networks), and Canada (with My Health Team) appear to be at the leading edge of this practice. These models of primary health care are highly integrated, team-based practices and promote patient-centred care through patient engagement and better access to treatment. Such models of organisation allow for a co-ordinated, whole system approach, spanning primary health care, community services, hospital care and social care. The foundation of such primary health care models is a high level of integration across the care team and care continuum resulting from an extensive use of EHR and new forms of communication (see also Section 3.1.2).

Australia is committed to delivering effective primary health care through the establishment of 31 Primary Health Networks (PHNs) as independent primary health care organisations, located throughout Australia. PHNs work to reorient and reform the primary health care system by taking a patient-centred approach to medical services in their regions. In addition, Health Care Homes are being developed as team-based

models of primary health care. As at 30 June 2019, there were 132 Health Care Homes in Australia providing coordinated and flexible care to 10 255 patients. The Health Care Homes programme supports patients with chronic and complex health conditions to voluntarily enrol with a participating medical practice known as their 'Health Care Home'. The Health Care Home practice provides the patient a 'home base' for the ongoing co-ordination, management and support of their conditions (see Box 3.2).

Box 3.2. Health Care Homes in Australia

The overarching objectives of Health Care Homes are to:

- more effectively identify patients with high co-ordination and multi-disciplinary needs and target services specifically for them;
- improve the quality of care for people with multiple chronic diseases by providing patients with a clinical home base to improve continuity of care;
- enhance care planning, team-based care and care co-ordination; and
- enhance patient empowerment and health literacy. Patients are encouraged to play a greater role in their health care.

The Health Care Home employs a risk stratification tool to identify potentially eligible patients and stratify them into one of three tiers based on the complexity of their needs. This tool is a software product that integrates with general practitioner's (GPs) clinical record systems. It comprises of two-steps: a predictive risk model to determine patients' risk of unplanned hospitalisation over the next 12 months, followed by an assessment with a clinician using a Hospital Admission Risk Program (HARP) questionnaire.

Below are some of the key principles of Health Care Homes:

- One care team – the patient has a committed care team, led by a nominated lead clinicians.
- One shared care plan – with the support of the care team, the patient will develop a shared care plan. This plan helps the patient to have a greater say in their care and makes it easier for all the people involved, both inside and outside the Health Care Home, to co-ordinate that care.
- Better access and flexibility – with a care team behind the patient, there is better access to care. Health Care Homes can also be more responsive and flexible. If the patient wants to talk to someone in the care team, it will not always be necessary to have an appointment with the GP, it may be possible to call or message the practice team.
- Better co-ordinated – the care team will do more to co-ordinate all care from the usual doctor, specialists and other health professionals.

Source: OECD (2018[42]), Policy Survey on the Future of Primary Care.

In Canada, several provinces have moved towards a team-based model for primary health care following the guidance of the Physician Integrated Framework (PIN) developed in 2006. The overarching objective was to encourage more care co-ordination and collaboration between primary health care physicians and clinics through greater use of EHR. The PIN initiative gave an impetus to the development of "My Health Team" (MyHTs) in several provinces of Canada, such as Manitoba or Ontario. Teams are typically made up of a physician, nurse practitioner and other allied health professionals, such as physiotherapists, dieticians, diabetes educators, pharmacists or social workers, depending on community need. It is considered as a one system approach for bridging the gap that currently exists between the Regional Health Authority and independent primary health care providers. It consists of a primary health care

network for developing, planning, and operating all primary health care and related services. MyHTs encourage health organisations and providers to work collaboratively to form a network, aligning their goals, contributions, roles and responsibilities in order to achieve the best health outcomes for the population. With an appropriate management structure, MyHTs enable the formation of a strong primary health care network that shares a common vision and service standards. This entails the co-ordination of existing medical and social services and the care team, as well as the active involvement of all stakeholders. In Manitoba, the Center for Health Policy conducted a risk stratification study to understand the health and risk profiles of local communities. The study describes the patient populations that current and future MyHT could expect to serve, including where patients access primary health care in relation to where they live, in order to provide a more accurate description of patient populations. It also looks at whether patients are high users of services, are medically or socially complex, and the overlap between these three types of patients. Risk stratification data is used by MyHT service planning to update service plans, particularly relating to service co-ordination.

MyHT are working with Access Centres and Community Health Centres to offer services that are integrated, patient-centred, and often delivered close to home. These centres are publicly funded and include primary health care clinics, but may also include other core services, such as family and employment services. The overarching objective is to serve complex and vulnerable clients efficiently (see also Chapter 4).

Similar benefits are also seen in Shared Care, a model currently being implemented across several of the MyHTs. Shared Care is a mental health programme that involves family physicians working collaboratively with mental health counsellors and psychiatrists (see Box 3.3). The goal of this collaborative model is to assist individuals with mental health difficulties to access mental health services in a timely manner and to provide that care within the familiarity of their family physician's office and to be more efficient in how specialists' time is used. The Shared Care model improves care co-ordination and integration for people with mental disorders.

Box 3.3. Shared mental health care in Canada

Access to Shared Care services begins when a primary health care physician identifies that their patient is experiencing mental health difficulties. In these situations, the physician may refer the person to a mental health counsellor or a psychiatrist. The doctor, counsellor and/or psychiatrist will then work together with the person to identify the support and assistance they need to improve their mental health.

Where possible, the family physician, mental health counsellor and psychiatrist work in the same office or clinic, so that care is co-ordinated. The mental health counsellor will provide individual, family or group counselling, depending on the needs of the individual. Services are short term and time limited. The psychiatrist will provide an assessment and consult the family physician to look for treatment options for those who need specialised mental health care.

Source: OECD (2018[42]), Policy Survey on the Future of Primary Care.

The experience from the United States is also inspiring. The Primary Care Medical Home, also referred to as the Patient-Centered Medical Home, is a promising model for transforming the organisation and delivery of primary health care. As in Canada and Australia, the Patient-Centred Medical Home focuses on five functions and attributes:

- Comprehensive care – the care team is expected to meet the majority of each patient's physical and mental health care needs, including prevention, acute care and chronic care. The team most often includes physicians, advanced practice nurses, physician assistants, nurses, pharmacists, nutritionists, social workers, educators and care co-ordinators.
- Patient-centred care – the Primary Care Medical Home delivers care that is relationship-based with an orientation towards treating the whole person. It encourages partnership with patients and their families, supports patient's health literacy and patient's self-management.
- Co-ordinated care – the Primary Care Medical Home co-ordinates care across all elements of the broader health care system, including specialist care, hospitals, home health care and community services and support.
- Accessible services – health care services are accessible with shorter waiting times for urgent needs, enhanced surgery hours, around the clock telephone or electronic access to a member of the care team, and alternative methods of communication such as email and telephone care.
- Quality and Safety – the Primary Care Medical Home uses evidence-based medicine and clinical decision support tools to guide shared decision making with patients and families, whilst engaging in performance measurement and improvement.

In addition, the Centers for Medicare and Medicaid services (CMS) launched the Comprehensive Primary Care Initiative (CPC) in 2012. As part of the CPC, 502 practices across 7 regions had to implement new approaches to delivering primary health care. Primary health care practices had to implement the following 5 primary health care functions: enhanced access and continuity of care; planned and preventive care for chronic conditions; risk stratified care management; patient and caregiver engagement; and co-ordination of care with the patient's other providers. CPC supports the primary health care practices through enhanced payments, data feedback on patient outcomes, and learning support. Interestingly, as part of the initiative, there was no enforcement of any specific type of organisational structure. Practices had latitude in how they implemented changes to allow adaptation to their specific patient and practice characteristics. Recent evaluation shows that CPC practices reported improvements in primary health care delivery, including care management for high-risk patients and improved co-ordination of care transitions. Now the Comprehensive Primary Care Plus (CPC+) model is being implemented by 3 000 practices (Peikes et al., 2018[43]).

Very recently, France established the "*Communautés Professionnelles Territoriales de Santé*" (CPTS) as part of *MaSanté* 2022. CPTS consists of networks of health professionals working in the same geographical area who will work collaboratively to organise urgent primary health care, ensure more co-ordinated care between primary and secondary care, and encourage greater collaboration between physicians and other health professionals. As with MyHT in Canada, CPTS will link the primary health care team working in health care centres, called *Centres de Santé*, with individual primary health care physicians, home care providers and long-term care facilities (see Box 3.4). The overarching objective is to progressively eliminate solo primary health care practices that are often associated with isolation. Already in 2019, 200 CPTS have been established.

Box 3.4. Health Care Centers (Centres de santé) in France

Since the 19th century and still to a great extent today, primary health care in France has been performed by individual practitioners (physicians, nurses, auxiliaries, etc.) in private practices. But today, in order to ensure greater effectiveness and equity of interventions, there is a need for stronger cooperation and co-ordination between practitioners, inside an integrated system providing curative but also preventive and rehabilitative interventions (Ministère des Solidarités et de la Santé, n.d.[44]).

Based on the initiatives of grouped practices known as "dispensaries" developed at a local level around World War II and also taking into account the latest actions, France has witnessed in recent years the development of multiprofessional grouped modalities for delivering outpatient primary health services, organised by private or public providers (Colin and Acker, 2009[45]). These new modes of primary health care delivery are called health care centres or "Centres de santé". They often group together several kinds of practitioners and serve local populations for which a comprehensive range of services is provided (IGAS, 2013[46]).

In multiprofessional health centres, services are organised around general practitioners to help establish diagnosis (ex: medical imaging and biology), provide nursing and care (ex: nurses, physiotherapists, other community health workers, etc.) and specialised care or follow-up for patients (ex: rheumatology, cardiology, dermatology, etc.). Almost systematically, health care centres also provide preventive actions for the local population (ex: immunisation, screening, education for health, etc.). Dental care is also often provided as a specific part of primary health care. Moreover, centres are increasingly involved in research and innovation, as well as in medical education (resident physicians, student nurses, etc.).

A considerable challenge is ensuring "internal" co-ordination among all the providers and units, but also "external" co-ordination with primary and secondary providers in a territory (ex: private practitioners, hospitals, maternal and child care, social services, etc.). Incentives and regulations were recently put in place in order to promote this co-ordination on a territorial basis (see for example the ENMR and the ROSP described in Chapter 2, and some recent experiments called *Paiement en Equipe des Profesionnels de Santé* and *Incitation à une Prise en Charge Partagée described in this chapter*) and to develop the exchange of health data between all the providers.

In 2018, 1 831 health care centres were established in France (of which 407 multiprofessional and 97% in urban areas). The average staff number per centre is 33 persons of which 37% physicians, 10% dentist, 22% auxiliaries, 27% administrative staff (National Observatory of Health care Centers, 2018[47]).

Source: The Fédération Nationale des Centres de Santé (FNCS).

Several studies in the United States show positive results. Primary Care Medical Homes have been found to improve care quality for a number of chronic conditions (Friedberg et al., 2015[48]; NCQA, 2017[49]; Schuchman, Fain and Cornwell, 2018[50]; Bates and Bitton, 2010[51]) and have improved patient experiences and increased staff satisfaction (NCQA, 2017[49]). They have also been linked with reduced costs, lower emergency department visits and fewer hospitalisations for patients with chronic conditions (Schuchman, Fain and Cornwell, 2018[50]; Bates and Bitton, 2010[51]; NCQA, 2017[49]).

In line with these findings, a recent literature review of 20 studies shows that inter-professional practice was associated with improved health outcomes and quality of life, notably for patients suffering from chronic diseases and cancer (NAP, 2019[52]). For example, inter-professional care improved diabetic patients' HgA1c by 10%, improved systolic blood pressure by 9% and decreased triglycerides levels by 62.6% (NAP, 2019[52]). Inter-professional primary health care also demonstrated cost-effectiveness and patient preferences.

There are also few evidence suggesting that advanced care teams in primary health care are more satisfying to clinicians and primary health care staff, when compared to more traditional single practice models (Sinsky and Bodenheimer, 2019[53]). Reviewing evidence from four interventions, Sinsky and Bodenheimer (2019) for example show that implementation of primary health care teams has led to a reduction in the number of after-hours work for family physicians and to a reduction in physician burnout (from 56% to 28% after one year of implementation). Advanced-care teams in primary health care have also been recognised as an effective way to improve provider and care team satisfaction. As perceived by the primary health care team, transforming primary health care using a team-based approach has resulted in higher levels of work-life balance (AHRQ, 2016[54]). New models of organisation based on teams or networks of providers is an improvement for primary health care staff, since it may save time, improve care quality and physician satisfaction notably by decreasing stress and improving work-life balance.

Strategies to support the implementation of team-based delivery of primary health care

Implementing team-based delivery of primary health care is not a simple undertaking given the traditional divisions of professional silos, and the fact that across many OECD countries, primary health care practices are owned by physicians themselves and operate as small enterprises. Primary health care physicians who want to create or migrate into group practices may need effective support from policy makers. Several publications highlight common barriers to the effective implementation of team-based delivery of primary health care (Schottenfeld et al., 2016[40]; Bodenheimer, 2007[55]; Socha-Dietrich, 2019[56]), including a culture of professional silos, lack of resources, inadequate payment systems and undefined relationships between team members. Recently, Socha-Dietrich (2019) has shown that there are two significant barriers to the effective deployment of teamwork in primary health care:

- Health workers are usually ill-prepared for teamwork, as both their training and work experience have been gained in very different (typically siloed and hierarchical) care models.
- Information on patients' expectations and experience of care is usually not included in the data used to identify who needs team-based care and what the team should offer. As a result, services risk being designed based on only a partial picture of patients' needs and the introduction of teams might be perceived by patients as disrupting the continuity of care with their primary health care physician.

To ensure effective team working, policy makers need to ensure that health professionals are well prepared for working in a team and to incorporate information on patients' expectations and care experiences into the team design. This requires support including: the preparation of business plans; access to loans to enable investment in practices; assistance in the selection, contract negotiation and training of support staff (see Box 3.5 for the Austrian example).

Team-based models of primary health care also require support through changes in payment systems, adjusting health system governance and implementing digital technologies. Integrating various services and utilising non-clinical workers is not traditionally reimbursed in a fee-for-service model, especially if payments are linked to the type of practitioner. Changes in payment methods are necessary, including a shift from fee-for-service to bundled services, for example, where payments are made for care over time (see below the section on bundled payments and shared saving models). Experiences from OECD countries also show that it is necessary to introduce flexibility into legal frameworks governing delivery of primary health care services, such as a national GP contract, in order to facilitate purchasing services from non-medical professionals by primary health care practices. In England for example, the general practice profession and NHS England developed a contractual framework which encourages and supports the development of multidisciplinary teams. Lastly, the availability and interoperability of information systems, in particular EHR, is a prerequisite to ensure the consistency and continuity in care within a team-based model of primary health care (Socha-Dietrich, 2019[56]).

Overall, the transition from solo-practice to team-based primary health care requires several changes including:

- changes in governance, reimbursement schemes and use of EHR
- changes in the culture and organisation of care, notably to allow for team meetings and more collaboration between professionals
- changes in the nature of interactions among colleagues and with patients to incorporate patients' expectations and experience of care into their care plan
- changes in education and training to ensure future and existing workers have the skills needed for interprofessional teamwork
- changes in the ways in which primary health care professionals and patients understand their roles and responsibilities.

Box 3.5. The strong focus on practical implementation is the guiding element in the current reform process in Austria aims at establishing primary health care units

Strengthening primary health care is a priority for Austria and constitutes one of the major objectives of the 2017 Austrian health reform. The reform aims to enhance primary health care capacity through the establishment of new multi-professional primary health care units, either in the form of primary health care centres at a single location or as a network of health professionals across several locations. The reform envisages the implementation of at least 75 such primary health care units by 2021. The multi-professional units should include at least a core team of GPs and qualified nurses but can also include pediatricians and other health and social professions such as physiotherapists or social workers. The reform further aims to increase access to primary health care by ensuring longer opening hours, particularly during evenings and weekends, in an attempt to reduce the burden on hospital outpatient departments. In June 2017 the National Council passed a bill on primary health care centres. The Health Reform Act regulates the necessary legal framework for the establishment of new multi-professional primary health care units and was one of the most important steps towards the strengthening of primary health care in Austria.

The strong focus on practical implementation is the guiding element in the current reform process ("from the why and the what to the how"). This process is considered a best-practice for actual implementation and therefore is significantly supported by the European Commission's Structural Reform Support Service (SRSS). The European Commission supports activities and services to facilitate health professionals moving from single-handed practice to larger primary health care units. The overarching objective of the support is to establish multi-professional primary health care units and to increase awareness among stakeholders on the available technical and financial support.

In particular, SRSS supports the following activities:

- creating a start-up guide (in print and online) with information for health professionals
- raising the attractiveness of primary health care for health profesionals
- creating support materials and providing training sessions for the Social Health Insurance and Regional Governments
- providing hands-on consultancy services to facilitate and support start up primary health care units
- designing a website (www.pve.gv.at) and a comprehensive communication strategy.

Currently 14 primary health care units are operational in 4 regions. Many more units are either in implementation or in a planning process for the upcoming years.

Source: European Commission (2018[57]), "Structural Reform Support Service current activities and plans for a future Reform Support Service", https://ec.europa.eu/health/sites/health/files/non_communicable_diseases/docs/ev_20180928_co07_en.pdf and Information provided by the Austrian National Authority.

New ways of communicating with patients and portable EHR enable preventive work to be more proactive and support care team co-ordination

EHR for patients and computerised decision support systems can generate recommendations about individual patient's care based on their specific needs and clinical history characteristics. Systematic reviews indicate that computerised clinical decision support systems can potentially improve the efficiency of primary health care teams and clinical practice (OECD, 2017[58]) (see also Chapter 2).

In particular, keeping EHR enables primary health care teams to work on prevention in a more structured way. EHR generates clinical reminders to help physicians track preventive and ongoing care services for patients with chronic diseases. Such tools can have a major effect on patient safety and the overall quality of the care delivered by increasing compliance with guidelines and protocol-based care, reducing medication errors and adverse drug effects particularly in the management of chronic diseases such as asthma, diabetes or heart failure (Chaudhry et al., 2006[59]; Campanella et al., 2016[60]). In Finland, for example, the POTKU model provides GPs with the locally developed Evidence-Based Medicine electronic Decision Support (EBMeDS) system, which is matched with patient records to provide personalised care guidance (Hujala Anneli et al., 2016[61]). The system also generates automated reminders and warnings. As a medical support tool, EHR has been associated with the workflow, policy, communication and cultural practices recommended for safe preventive primary health care.

To identify and better manage high-risk patients, team-based models of primary health care need to rely on data analysis based on EHR. The use of such data is paramount to help assess risks, aid diagnosis of different symptoms, to direct patients to the most appropriate services for their needs and to improve co-ordination between health care professionals[4]. Spain, for example, uses risk stratification by unifying EHR with various data sources, including demographics, primary health care, hospital care and prescription data. Risk stratification and case finding allow alignment in the delivery of preventive services for groups at higher risk of worse health outcomes and to elaborate needs-based care plans[5] (see also Chapter 2).

To be effective, EHR needs also to be portable across the care continuum, and integrated with functionalities, such as: electronic scheduling of appointments, secure communication between patient and clinical teams, providing reference information on self-management of chronic conditions, electronic prescriptions and dispensing of drugs. Such well-structured EHRs facilitate the distribution of patient health information among all health providers. It allows providers to be notified when a patient has been in hospital, allowing them to proactively follow up with the patient. Each provider will have the same up-to-date information about patient care. Portable EHRs and new ways of communicating within care teams allows the process of care to be streamlined and increases the likelihood that patients are receiving appropriate, co-ordinated, and timely care.

In Israel, for example, all the health funds have comprehensive EHR in community care, which support the sharing of information among physicians, laboratories, diagnostic centres, hospitals and patients. EHRs are used across the community care setting and they capture detailed patient-level information, including demographics, diagnostic and testing information, and drug utilisation data. They also capture key clinical and public health quality monitoring data, including chronic disease management and some risk factor information. As Clalit (the largest health fund in Israel) has its own network of hospital services, its patient records are linked across community and hospital care. These electronic systems are used to support delivery of care processes, which is especially important for patients who see several health professionals and who make transitions between care settings.

In the United Sates, Kaiser Permanente implemented HealthConnect between 2004 and 2010. It is now the largest EHR in the United States. Health Connect enables all Kaiser Permanente clinicians to electronically access their patients' medical records. The EHR has many other functionalities: it integrates the clinical record with appointments, ancillary and specialty services, registration, and billing. It also

enables performance benchmarks of all professionals in the network to be generated. Primary health care providers and medical offices can review entire medical records, check laboratory results, immunisation records, history of medical visits, ordering of prescriptions, and referrals. Best-practice research for health professionals is also accessible. Patients are empowered with easy and convenient access to their health information and health management tools, such as the ability to email their care teams or to refill prescriptions.

Many of these functionalities have been found to improve effectiveness of care among diabetes and hypertension patients. An impact evaluation of the introduction of secure messaging between physician and patients with diabetes showed that, when compared to a control group, there was 11.1 percentage points (pp) improvement in blood sugar control (HbA1c<9%), 10.5 percentage points improvement in cholesterol control (LDL-C<100mg/dl), and 6.6 percentage points improvement in blood pressure (BP<140/90) (Zhou et al., 2010[62]). The use of EHR has also been found to help clinicians to better target treatment changes, and follow-up testing for patients with diabetes mellitus (Reed et al., 2012[63]). Ultimately, the use of an EHR was associated with improved HbA1c and LDL-C levels among all patients.

Bundled payments and shared saving models have been shown to improve care co-ordination

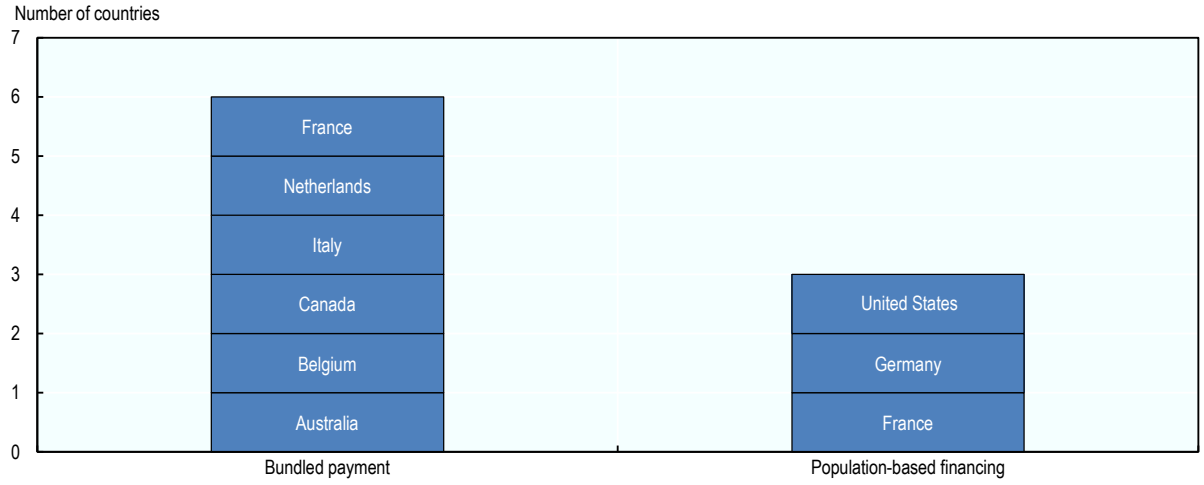
Predominant forms of payment, such as fee-for-services and capitation, in their pure form, are not well suited to meet the challenges posed by ageing populations and the rising burden of chronic conditions (OECD, 2016[64]). Such models of payment are predominantly used for “siloed” financing of health providers, they struggle to support new models of care that are better equipped to achieve people-centred care stretching across several health providers and different levels of care, including primary health care centres, specialist clinics and hospitals. Several countries have, however, taken steps to adapt and blend these payment systems. Beyond implementing paying for prevention and paying for co-ordination schemes (see Chapter 2), some countries have introduced bundled payments and population-based payments with shared savings.

Bundled payments have been effective in improving care quality for chronic conditions

Bundled payments in primary health care settings have been introduced to improve quality of care for chronic conditions. These consist of one payment per patient with a chronic illness to cover the cost of all health care services provided by the full range of providers during a specific time period. As demonstrated by OECD (2016), bundled payments lead to better collaboration within and across care settings and can contribute to a greater standardisation of care and to the development of sophisticated IT systems. Evidence indicates that bundled payment programmes have been effective in containing rising costs, while leading to increased performance in terms of care quality, higher patient satisfaction and better adherence to medication and treatment protocol (OECD, 2016[64]; Hussey et al., 2012[65]). In the Netherlands, for example, the bundled payment for diabetes showed improvements in care quality for most process indicators (HbA1c, BMI checked, blood pressure checked, improvement in kidney function and cholesterol tests), it has led to more effective collaboration among health care providers and to better adherence to care protocols (Struijs and Baan, 2011[66]; de Bakker et al., 2012[67]).

Findings from the 2018 OECD Policy Survey on the Future of Primary Care indicate that paying for an episode of care through a bundled payment model is currently implemented in six OECD countries (Figure 3.6). Although the design and characteristics of bundled payments differ between OECD countries, the models developed in Australia and Canada could be of particular interest to other OECD countries and are worthy of consideration. In these countries, the bundled payment accounts for patient complexity, which is an important prerequisite to encourage the participation of primary health care providers (Stokes et al., 2018[68]).

Figure 3.6. Bundled payments and population-based financing are not widely adopted across OECD countries



Source: OECD (2018[42]), Policy Survey on the Future of Primary Care.

In Australia, funding for Health Care Homes is bundled into periodic payments. Three levels of payment are proposed. The amount paid is linked to each patient's level of complexity and need, with the highest amount paid for the most complex and high-need patients. The payment values represent an average payment for each level of complexity and recognise the individual variations in service delivery that patients will require at each level. Monthly payments are made to the practices on a retrospective basis. Each Health Care Home can determine how they use these payments, but are required to provide all general practice health care related to a patient's chronic and complex condition.

In Canada, the province of Manitoba, introduced Comprehensive Care Management (CCM) tariffs to physicians in 2017. This is a bundled payment that supports physicians to provide care to patients with complex needs in order to promote continuity, co-ordination and access to care, whilst also making care more comprehensive and patient-centred. The tariffs encourage the use of interprofessional teams and promote preventive care. The overarching objective is to encourage physicians to treat more patients suffering from diabetes, asthma, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), hypertension, and coronary artery disease who typically require longer GP visits and more time to co-ordinate care. Five tariffs became available as of 1 April 2017 to pay eligible physicians for the annual management of primary health care for enrolled patients, and these payments are scaled according to complexity. CCM tariffs also include data requirements that help track the quality of care and registration of patients with complex needs.

In France, a new five-year pilot programme was launched in 2019 to experiment with bundled payments. The programme is called *Paiement en Equipe des Profesionnels de Santé* (PEPS). The objective is to ensure greater care integration, improved patient care pathways, and greater care co-ordination between primary health care and secondary care providers. The bundled payment will substitute the fee-for-service schemes, and will only apply for patients followed by a GP in a multi-professional health care centre (*Centres de Santé*). The pilot targets diabetes patients and elderly patients (aged 65 years and over), but also includes all patients having a named GP. Bundled payments will eventually be rolled out nationally from 2023 if evaluations show positive results.

Although bundled payments have not been introduced in Belgium, the interprofessional Integrated Needs-based Capitation is an innovative payment scheme which deserves attention. The Integrated Needs-Based Capitation model, which goes beyond flat capitation, was developed with 42 variables describing the needs of the patients (such as age, gender, socio-economic status, morbidity, functional status, etc) on the list of

each community health centre. The model takes into account the demographical and epidemiological transition that affect primary health care system. As described by De Measeneer (2017), the Integrated Needs-Based Capitation System is well-fit to pay interprofessional primary health care team because it stimulates prevention and health promotion, task-shifting, collaboration between health care professionals and co-ordination of care (De Maeseneer, 2017[69]).

As shown by previous studies, the impact of the bundled payments on care co-ordination and quality of care might depend on the scope of the payment in relation to the range of providers involved and services covered (Stokes et al., 2018[68]). As bundled payments transfer the financial risk from insurers to providers, diverging interest between providers and fear of bearing financial risks can impede the participation of primary health care providers. This is particularly the case when patients have multiple needs, requiring a number of health care services, which can be provided by a diverse range of clinicians, technicians and allied health professionals. The successful implementation of bundled payments is more likely to happen within large-scale primary health care organisations with strong governance and sufficient financial reserves to assume the financial risk. In addition, and as seen in Canada and Australia, it is equally important to ensure that bundled payments account for the greater complexity of treatment for patients having multi-morbidity.

Population-based payments with shared savings provide a good incentive to improve care co-ordination and quality

Population-based payments are made to groups of health providers, such as, independent primary health care physicians, specialists, practice networks, hospitals, as well as management companies, and these payments cover most health care services for a defined group of the population. Similarly, as for bundled payments, the overarching objective is to overcome care fragmentation through greater care co-ordination. Rather than paying providers in “silos”, the money follows the patients across providers, covers most health care services and has a more comprehensive view of population well-being.

The innovation with population-based payments is the possibility for providers to share the savings generated for the financers if they are able to reduce treatment costs while meeting pre-defined quality requirements. Providers participating in the network will be encouraged to collaborate if the scheme provides opportunities for joint savings. A prospective budget for a population is defined, and providers are financially rewarded if they can keep total costs below the benchmark value. This means that all costs for the patients participating in the integrated care programme are registered and retrospectively compared to historic figures or a benchmark, to determine if savings have been made.

Such innovative – and rather complicated models – of financing are still uncommon across OECD countries (see Figure 3.6). Several population-based payments with a shared saving approach are operating in the United States. The 2010 Affordable Care Act gave impulsion to the development of Accountable Care Organisations (ACOs), groups of health care providers that are collectively accountable for the organisation of health care and take financial responsibility for care provision. The Centers for Medicare and Medicaid Services (CMS) contract with ACOs for the care of a defined population of Medicare patients. Providers forming an ACO include primary health care providers and hospitals, but can also extend to specialists, long-term care facilities and home care. Although there are different programmes designed by CMS, for all models savings can only be earned when quality targets are being met.

In Germany, the Gesundes Kinzigtal GmbH is a joint venture contracted by two statutory health insurance funds to run a population-based integrated care model in rural southwest Germany. It serves middle- to lower-income populations with a high proportion of chronic diseases. The model includes strong stakeholder engagement, electronic integration across providers, patient involvement and empowerment, and data-driven management. The contracts are based on the virtual budget for each fund from the Central Health Fund total allocation. A network of doctors owns two-thirds of Gesundes Kinzigtal and a health management company (Optimedis AG) owns the remaining part. Potential savings are calculated between the virtual budget and actual cost of the whole population insured with the two health insurers in these

regions. Around 86 providers have contracts with Gesundes Kinzigtal including GPs, outpatient specialists, hospitals, nursing homes, physiotherapists, pharmacies, providing coverage to 46% of the total population. Providers contracted by Gesundes Kinzigtal are paid by health insurers in the traditional way (fee for services). Doctors who are co-owners of Gesundes Kinzigtal will receive additional payments in case of financial success, and this is not dependent on explicit quality targets. The model puts strong emphasis on prevention, health promotion, and public health to generate value for the population in the long run.

Pimperl et al (2017), show that over 11 years, the integrated model of care resulted in sustained improvements in health outcomes, such as lower hospitalisation rates, higher life expectancy, and higher mean age at the time of death than the control group (Pimperl et al., 2017[70]). Patient satisfaction has increased, and financial results have proved reliable with cost reductions of 7% per insured person since 2014.

France launched a five-year pilot programme called *Incitation à une Prise en Charge Partagée* (IPEP), which is similar to shared savings population-based financing. It takes a population responsibility approach, similar to the Accountable Care Organisation in the United States. The collective payment is complementary to existing payment mechanisms. Shared savings are conditional on quality performance, and health professionals are free to use the savings as they wish. The objective is to improve the way health care professionals work in networks in order to meet the needs of patients in a given geographical area and to improve patient pathways through the health care system. Health care providers, such as primary health care physicians, community health agents, hospitals and social workers, need to collaborate to improve the care of patients based on quality and efficiency indicators.

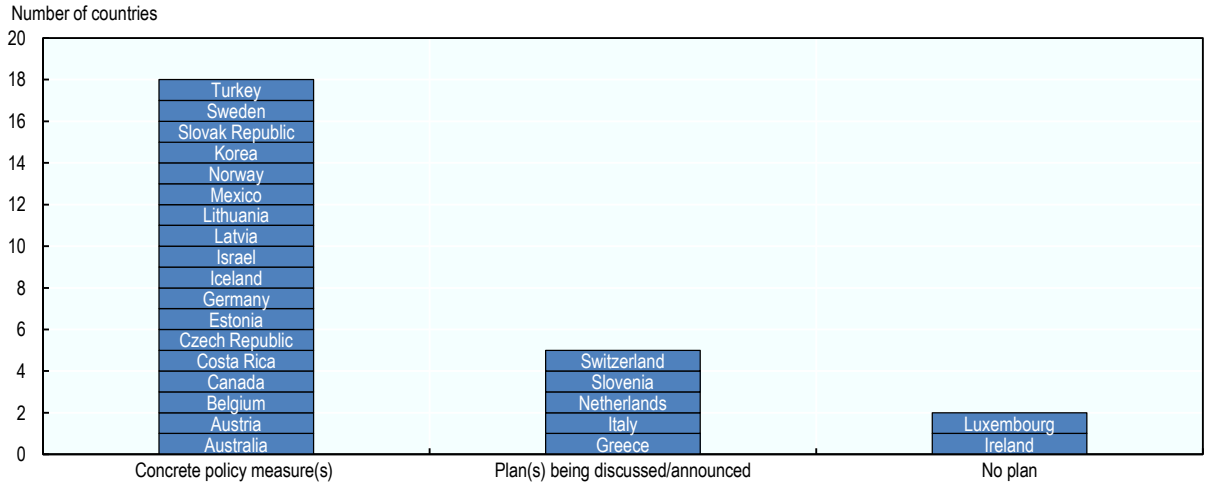
3.3.2. Improving patient self-management and the responsiveness of primary health care

Efforts must be strengthened to monitor primary health care and ensure that the care it delivers is effective

Compared to the hospital sector, health care systems know little about the quality and outcomes achieved within primary health care. The data generated in most health care systems remains concentrated on inputs and activities. Although nearly all OECD countries report structure indicators, such as the number of primary health care physicians and the number of consultations, only a handful of OECD countries systematically report primary health care quality measures at the national level. Robust reporting information systems are needed to detect, measure and learn from inappropriate and poor primary health care quality. A rich information system is a prerequisite to achieving a good understanding of how, where or why inappropriate and poor primary health care quality exists. These measurements will be developed into actions for quality improvement.

The 2018 OECD Policy Survey on the Future of Primary Care indicates that 18 OECD countries reported having implemented policy measures to collect nationwide performance metrics to monitor the performance of primary health care (Figure 3.7). Such plans are still being discussed in Greece, Italy, the Netherlands, Slovenia and Switzerland. While in Ireland (and Luxembourg) there is no ongoing plan to collect performance metrics in primary health care, the country already collects performance metrics in respect of primary health care. As part of the performance assurance process, an overall analysis of key performance data is provided on a monthly basis to the Department of Health in Ireland. The activity data reported is based on Performance Activity and Key Planning Indicators, with performance monitored against planned activity as outlined in the National Service Plan. It is however generally accepted that there remains scope to improve data reporting from the primary health care sector, and work is ongoing in relation to developing system capacity in this regard.

Figure 3.7. 18 OECD countries have implemented policy measures to collect nationwide performance metrics to monitor the performance of primary health care



Source: OECD (2018[42]), Policy Survey on the Future of Primary Care.

Linking primary health care data to other data sources is necessary for assessing the patient care pathway

Essential to measuring health care quality and performance assessment is the ability to track patients as they progress back and forth through the health care system, the "care pathway". In these pathways, primary health care plays a pivotal role. However, the data landscape in many countries is fragmented: working with electronic records has become common for many primary health care providers, but to get a better view of what is happening in the health system, such data need to be linked across providers and levels of service, such as data from hospital care and social care.

To date, few countries link primary health care data systematically to other sources to assess performance of the health system. Across the OECD, primary health care data remains one of the least regularly linked data sources in health systems. In 2015, 10 out of 22 OECD countries reported that they can link primary health care data with other sources and only 2 countries (Korea and the United Kingdom) reported that primary health care data is regularly linked with other data sources to monitor health care quality and health system performance (OECD, 2015[71]).

In the United Kingdom, the Clinical Practice Research Datalink (CPRD) provides routine record linkages between primary health care data and a range of health-related patient datasets within England (see Box 3.6). CPRD also produces confidential reports designed to help GPs improve the quality of their prescribing, patient safety and to review care pathways.

In the future, all OECD health care systems should be capable of linking public health data with primary health care data. Linking primary health care data with public health data could be used to capture relationships between multiple behavioural factors and a particular set of conditions. Such information could be used to conduct specific targeted prevention actions towards disadvantaged or high-risk populations.

Box 3.6. The Clinical Practice Research Datalink in the United Kingdom

CPRD is a UK Government research service jointly supported by the Medicines and Healthcare products Regulatory Agency (MHRA), and the National Institute for Health Research (NIHR) to promote health care research and drive innovation through the use of patient electronic health records (EHR) (Wolf et al., 2019[72]; Herrett et al., 2015[73]).

CPRD was the first to provide routine record linkages between primary health care data and a range of health-related patient datasets. Data linkage is undertaken by NHS Digital, the trusted third party of CPRD.

Anonymised primary health care patient data can be individually linked to secondary care and other health and area-based datasets (including Hospital Episode Statistics, death registration, national cancer registration, mental health datasets, measures of relative deprivation and rural/urban classification). These linkages enable CPRD to provide a fuller picture of the patient care record to support vital public health research, informing advances in patient safety and delivery of care. CPRD is expanding its health care data and research services to increase both the cover of primary health care data and the number of datasets that are linked and made available on a routine basis to the research community.

CPRD also produces confidential reports designed to help GPs improve the quality of their prescribing and patient safety. Reports show the practice performance, benchmarked against other participating GP practices.

Source: Wolf et al. (2019[72]), "Data Resource Profile: Clinical Practice Research Datalink (CPRD) Aurum", https://doi.org/10.1093/ije/dyz034 and Herrett et al. (2015[73]), "Data Resource Profile: Clinical Practice Research Datalink (CPRD)", https://doi.org/10.1093/ije/dyv098.

Better primary health care data on clinical performance is a prerequisite to better monitoring and improvements in care

The availability and quality of primary health care data for performance assessment needs to advance in most countries. To ensure primary health care is effective, it is necessary to collect data on clinical performance and efficiency at individual provider level. This can then be used to provide feedback to providers, who may be able to compare themselves to their peers and access tools for performance improvement (OECD, 2017[74]).

Indicators could, for example, focus on:

- defined daily doses of antibiotic use in ambulatory care per 1 000 inhabitants
- prescription or referrals in accordance with guidelines
- percentage of individuals with COPD or asthma who have had a lung function measurement during the last 12 months
- percentage of diabetic population with blood pressure above 140/90 mmHg observed in the last 12 months.

Recent evidence shows that such clinical performance and efficiency indicators are available in only a limited number of OECD countries. Canada, Denmark, Estonia, Finland, France, Israel, Italy, Latvia, Lithuania, the Netherlands, Portugal, Slovenia, Spain, Sweden, the United Kingdom and the United States, are among these countries (Reynders et al., 2018[75]; OECD, 2017[74]; Chipman, 2019[76]). In Sweden, for example, the project called Primary Care Quality Sweden is a quality improvement system comprising around 150 quality measures and technical methods for collecting data automatically (Chipman, 2019[76]).

The overarching objective is to support quality improvement without causing any extra administrative work for the primary health care team (doctors, nurses, physiotherapists, occupational therapists, psycholgists and other primary health care professionals). The system covers indicators such as comorbidities, lifestyle habits and pharmaceutical treatment, diagnosis-specific indicators for 12 categories of conditions commonly seen in primary health care, as well as patient-reported data. In 2018, Primary Care Quality Sweden covered half of Sweden's 1 200 health centres (Chipman, 2019[76]). In Israel, the Quality Indicators in Community Healthcare programme captures more than 35 measures of quality of care on preventive measures, use of recommended care, and the effectiveness of care, including for asthma, cancer and diabetes management as well as cardiovascular health (OECD, 2017[74]).

Ideally, the information collected should be used systematically to identify inappropriate or poor primary health care and undertake actions for quality improvement. According to Reynders et al (2018)[36], performance measurement is embedded within the policy process to target areas of improvement in some regions of Italy and Spain. In the region of Lazio, for example, primary health care quality indicators are systematically used by the Health Plan Directorate to evaluate clinical performance for chronic conditions. The information is then used to set clinical and organisational objectives for health care providers and to link the level of achievement of these objectives to annual budget or contract extensions of health care professionals. Similarly, in Spain, performance indicators help to target strategic areas of improvement in health centres. Performance assessment is used to define national strategies for chronicity, health promotion, ischemic heart disease, COPD, diabetes and stroke (among others). These strategies resulted in slight improvements in some of the health problems which were prioritised (Reynders et al., 2018[75])

Collecting patient-reported measures enables monitoring of the effectiveness of primary health care from patients' perspectives

Health care systems know very little about whether the primary health care delivered succeeds in improving people's well-being and their ability to play an active role in society. It is only when we measure outcomes reported by patients themselves – such as quality of life – that important differences in the outcomes of care emerge.

Patient-reported indicators measuring both health status and the experience of receiving health care from the patients' perspective are essential to ensuring services are responsive to people's needs and preferences, and to improving the quality and outcomes of primary health care. Patient-reported indicators are also particularly useful for promoting and evaluating people-centred care. They are defined as:

- Patient-reported experience measures (PREMs), which capture the patient's view on health service delivery (e.g. communication with nurses and doctors, staff responsiveness, discharge and care co-ordination); whereas
- Patient-reported outcome measures (PROMs), provide the patient's perspective on their health status (e.g. symptom burden, side effects, mental health and social functioning).

It is essential that patients are consulted on the primary health care aspects that matter most to them. As primary health care is often the first point of contact with the health care system, taking into account patients' perspectives on their experiences with primary health care services, their values and perceptions, are all crucial elements for performance assessment. Collecting patient reported measures can help define quality, curb less successful practices and influence the direction of change, for example, by guiding decisions on the allocation of resources.

Yet, there is little effort nationally and internationally to survey patients' self-reported outcomes and experiences in order to improve them. In the area of primary health care, PREMs and PROMs are rarely collected at practice level. Among OECD countries, England and the United States are at the leading edge of this practice (Box 3.7). At national level however, PREMs are increasingly being collected through national population-based surveys or by participating in the Commonwealth Fund Survey. This is the case

in Australia, Canada, Denmark, France, Germany, Ireland, Israel, Luxembourg, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States (Fujisawa and Klazinga, 2017). In Australia for example, patients' experience with GP care is collected at national level through the Survey of Health Care. The Survey of Health Care is used to conduct national estimations on whether patients have a usual GP and/or place of care and how this continuity of care affects their experiences.

In 2017, the OECD launched the Patient-Reported Indicators Surveys (PaRIS) to address the need to understand the outcomes and experiences of people with chronic diseases (Box 3.8). PaRIS offers an opportunity to gather the evidence necessary to develop health systems centred on the needs of the people they serve. Comparing the performance of health systems will inform policy makers and help them understand to what extent their policies can deliver more people-centred health systems. This will also enlighten people with chronic conditions, helping them to understand how the outcomes and experiences of care in their own country compare with those in other countries. Ultimately, it will help open a dialogue with service providers about how to further improve the performance of health services and health systems to become more people-centred.

Box 3.7. Collecting PREMs at the practice level: Examples from the United States and England

In the **United States**, the Consumer Assessment of Health Care Providers and Systems programme (CAHPs), managed by the Agency for Health Care Research and Quality (AHRQ), helps policy makers and providers gain a better understanding of patient experience with health care. It consists of:

- assessing patient experience at practice level
- reporting survey results
- helping organisations use the results to improve the quality of care.

The CAHPS programme applies to different health care settings, including primary health care. CAHPS surveys ask patients to report on their experiences with a range of health care services at multiple levels of the delivery system. Patient survey measures can relate to patient's experiences with providers (e.g. accountable care organisations, home health care and nursing homes), with care for specific health conditions (e.g. mental health care), or with care delivered in facilities (e.g. home and community-based services).

In **England**, the GP Patient Survey assesses patient's experience of health care services provided by GP practices within the National Health Service (NHS) England. It assesses experience of access, making appointments, the quality of care received from health care professionals, patient's health and experience of their GP practice. The survey also includes a number of questions assessing patient's experience of NHS dental services. Around 2 million patients registered with a GP practice are surveyed twice a year. The Care Quality Commission uses the results from this survey in their regulation, monitoring, and inspection of GP practices in England. The GP Patient Survey website is remarkable. It offers a description of each GP practice and its performance based on the latest survey. The analysis tool also provides comparison of performance between GP practices.

Source: Based on 2019 GP Patient Survey, http://www.gp-patient.co.uk, and The Agency for Healthcare Research and Quality, https://www.ahrq.gov/cahps/index.html.

Box 3.8. The PaRIS survey

In 2017, the OECD launched the Patient-Reported Indicators Surveys (PaRIS) to address the need to understand the outcomes and experiences of people with chronic diseases. PaRIS offers an opportunity for gathering the evidence necessary to transform health care systems into patient-centred systems based on the needs of the people they serve.

The initiative includes:

- The OECD supporting countries in accelerating the adoption and reporting of validated, standardised, internationally comparable patient-reported indicators in three areas: hip and knee replacements, breast cancer care and mental health care.
- Developing a new set of internationally comparable measures to help policy-makers assess to what extent their policies are on track to make health systems more people-centred. This new international survey focuses on patients with one or more chronic conditions, who are living in the community, and who are largely treated in primary health care or other ambulatory care settings.

Individual and group-based services in primary health care settings support better self-management

Supporting individuals to gain access to necessary information and to develop technical skills, will ensure a high level of self-efficacy and self-management which has been associated with better health outcomes and care experiences (Hibbard and Greene, 2013[77]). Clinical and non-clinical services to support self-management are varied, ranging from personalised care planning, one-on-one coaching and counselling in primary health care (Edwards, Dorr and Landon, 2017[78]; Olsen and Nesbitt, 2010[79]; de longh et al., 2015[80]; Housden, Wong and Dawes, 2013[81]; Liddy et al., 2014[82]). These services support the maintenance of an individual's skills and confidence to self-manage aspects of their care and to manage the wider social and lifestyle aspects of their health in the long term.

Personalised care planning

Personalised care planning is a formal process whereby practitioners and patients collaborate to create a longitudinal treatment plan (Edwards, Dorr and Landon, 2017[78]). Structured discussions to develop care plans in primary health care work to identify an individual's goals, provide relevant information, agree on any treatments or medications, and look at whether there are any appropriate structured education programmes. Care plans have been widely used, in some cases already for more than two decades, across Australia, Canada, Germany, the United Kingdom and United States (Young, Boyle and Mutch, 2016[83]). A systematic review of personalised care planning demonstrated improvements in: quality of care for people with diabetes, hypertension and asthma; improvements in self-efficacy and self-care; and some improvements in psychological and general health indictors. Moreover, interventions were most effective when they were integrated into routine care (Coulter A, Entwistle VA, Eccles A, Ryan S, Shepperd S et al., 2015[84]). A number of resources need to be available to support care planning, with templates, capacity building tools and support monitoring. The Well-being Star approach is an interesting example in this regard, it is a trademarked approach developed in the United Kingdom, designed to support the development of personal health plans for self-management. The tools available facilitate preparing plans jointly by a patient and health professional, as well as providing training for staff and tools for monitoring implementation (Outcomes Star, 2019[85]).

Health coaching and counselling

Beyond personalised care planning, there are health coaching and counselling services that can be provided in primary health care settings. Health coaching or counselling are interventions offering one-on-one focused self-management support for a patient to learn to be an active participant in the self-management of a chronic condition. Health coaching has been shown to achieve sustained behavioural change, including improved nutrition, physical activity, weight management and medication adherence (Liddy et al., 2014[82]; Olsen and Nesbitt, 2010[79]). When integrated with combined lifestyle intervention (CLI), health coaching and counselling are promising initiatives supporting self-management (DeJesus et al., 2018[86]). CLIs support people in initiating and maintaining healthier lifestyle behaviours, including physical activity, dietary and behavioural components. GPs, practice nurses, physiotherapists, psychologists or dieticians most often carry out CLIs. Previous studies have shown that CLIs have been effective in terms of weight reduction and health improvements, compared with standard care or drug treatment alone (van Rinsum et al., 2018[87]). Previous work also shows that when offered systematically in primary health care settings, counselling interventions also have the potential to generate large health and life expectancy gains (OECD, 2010[88]; Sassi, 2015[89]).

According to the 2018 OECD Policy Survey on the Future of Primary Care, 14 OECD countries reported counselling on lifestyle changes or disease prevention for non-treatment seeking patients in primary health care settings (Australia, Canada, the Czech Republic, Estonia, Germany, Greece, Italy, Korea, Latvia, Mexico, the Netherlands, Slovenia, Sweden and Turkey).

In the Netherlands, the Coaching on Lifestyles (Cool) intervention and the SLIMMER diabetes prevention lifestyle intervention in Dutch primary health care are remarkable. The Cool intervention has been implemented for people who are overweight or obese to help them achieve a sustained healthier lifestyle. The programme consists of 8 group sessions and between 4 and 10 individual sessions, targeting physical activity, dietary behaviours, sleep and stress. The longitudinal pre- and post-study reviews identify lifestyle change at 8 and 18 months after initiation. Positive and sustained changes among adults were found regarding behaviour and quality of life (van Rinsum et al., 2018[87]). In a similar vein, the SLIMMER diabetes prevention lifestyle intervention, implemented in Dutch public and primary health care, involved general practices, dieticians, physiotherapists and sports clubs. It consisted of both dietary and physical interventions in individual or group session consultations (also called shared medical appointments), and individual case management. A recent randomised control trial has shown that the SLIMMER programme improved body weight, clinical and metabolic risk factors, dietary intake, physical activity, and quality of life in the intervention group (Duijzer et al., 2017[90]). The intervention group, for example, showed significantly greater improvement in anthropometry and glucose metabolism. After 12 and 18 months, differences between the intervention and control group were -2.7 kg and -2.5 kg for weight and -12.1 pmole and -8.0 pmole for fasting insulin (Duijzer et al., 2017[90]).

Canada, the Czech Republic and Germany have introduced brief alcohol intervention in primary health care. Germany is currently working to target alcohol-related disabilities through brief interventions offered in primary health care settings and in the work place. In Italy, health education and support from primary health care physicians have been introduced to improve diets and physical activity. Japan also has a comprehensive programme aimed at improving healthy lifestyles – including dietary habits and physical activity – based on counselling in community centres. In Estonia, family physicians are expected to educate and advise patients on screening programmes, alcohol intake, HIV prevention and immunisation. In the Czech Republic, GPs provide health promotion, particularly within regular preventive checks. Since 2000, colorectal cancer screening using faecal occult blood testing has been established in GPs offices and they are also involved in vaccination programmes.

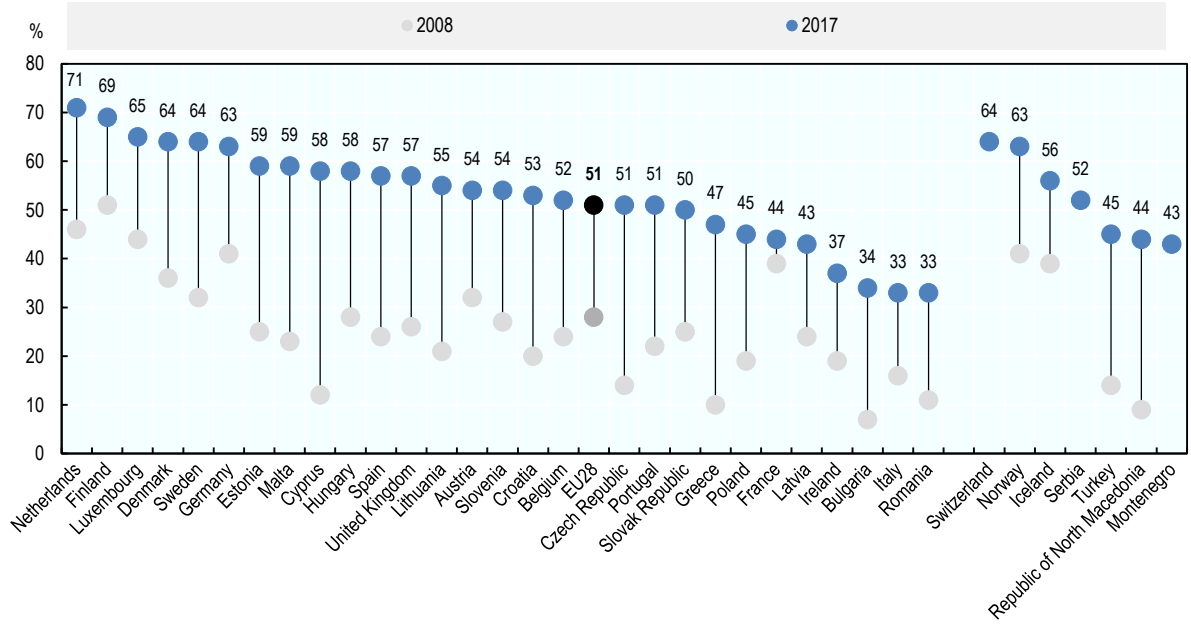
Peer support groups, most often included in community-based programmes, can also provide an important source of education, emotional support and practical problem-solving assistance among people facing similar challenges. This may take the form of peer listening, education, tutoring or mentoring, built on

shared personal experience and empathy. Peer support groups have been used widely for the treatment and management of chronic diseases (Jakab et al., 2018[91]), with well-studied experiences for mental health and anxiety in Australia, Canada, New Zealand, the United Kingdom and the United States. In Nova Scotia (Canada), Your Way to Wellness programme is a self-management programme for those living with chronic disease (cancer, cardiovascular diseases or diabetes for example). It helps people with chronic conditions and their caregivers overcome daily challenges, take action and live a healthy life. Groups meet weekly for two and half hours for six weeks and are led by trained volunteers, most of whom have chronic conditions themselves. Participants learn how to set goals and problem solve, improve communication with health care providers, family and friends, eat healthier, manage symptoms, fear and frustration and improve self-confidence. Peer support is associated with better self-management for cardiovascular disease, diabetes, mental health, and other chronic conditions (de Iongh et al., 2015[92]; Patil et al., 2018[93]; Ferrer, 2015[94]) and has also contributed to higher quality of life among breast cancer patients (Taleghani et al., 2012[95]).

Technology-based platforms linking patients to primary health care teams show promise in improving self-efficacy and health behaviour

In less than a decade, the percentage of people from European countries seeking health information online has increased rapidly, nearly doubling from 28% in 2008 to 51% in 2017 (Figure 3.8) (OECD/EU, 2018[96]). Similarly, recent OECD data show that seeking health information ranks second, just after online purchases, among most frequent activities by Internet users (see Chapter 2). Importantly, this proliferation in use of the Internet has lessened early pitfalls of Internet-based solutions and their potential to contribute to a socio-economic "digital divide" among those less likely to have access to or feel comfortable using computers.

Figure 3.8. The percentage of people seeking health-related information online is increasing in all European countries, 2008-17



Note: Data corresponds to the years 2008-17, in which the United Kingdom was member of the European Union and therefore part of the EU average.

Source: OECD/EU (2018[96]), *Health at a Glance: Europe 2018: State of Health in the EU Cycle*, https://doi.org/10.1787/health_glance_eur-2018-en.

The increased use of the Internet and technology-based platforms for health-related information (also called mobile health or mHealth) presents a vital medium for self-management support (see also Chapter 2). Online self-management resources and programmes hold several inherent advantages: patients can control when and where they participate; technology can overcome isolation due to distance; and data storing and processing is streamlined, among other advantages. More recently, mobile technology has shown increasing potential to integrate self-management support seamlessly into daily life. Smartphone software and mobile phone and tablet apps that not only remind patients about self-monitoring tasks but also send the results directly to their medical team show promise for improving self-efficacy, health behaviours and clinical outcomes (Whitehead and Seaton, 2016[97]; Bender et al., 2011[98]). To date, many online self-management support services in primary health care are those linking patients and providers, including patient-provider portals, smartphone applications and telephone or Internet-based consultations and monitoring.

Patient-provider portals

Health portals are websites that also provide secure online access to personal health records, linking patients and health providers so they can make appointments, share test results and communicate electronically (Health Council of Canada, 2012[99]). Review data suggests the success of web-based patient portals depends on user-friendly designs, attention to data security when messaging, available guidance on how to use the portal and easy-to-use and understand health information. In Finland, the Oulu Self Care Service is an electronic platform providing self-care services, including secure communication, chatting with nurses or booking appointments (see Box 3.9). In Canada, a number of regional online portals have increased patient-provider communication through secure messaging such as the miHealth application; a Canadian-made app initially designed and piloted for northern Ontario and now expanded for wider use (see Box 3.8). In Estonia, patients have access to their personal health information from home, giving them the possibility to reference a wide range of relevant health information based on their health status and treatment plans. The patient portal also provides general information on their condition, relevant lifestyle changes and frequently asked questions by patients. In Turkey, the E-pulse patient portal has been established by the Turkish Ministry of Health. It is a personal health record system that integrates the information systems of all health institutions. Thanks to E-pulse, people can access their lab results, medical images, prescription, medication and diagnosis details, and health records. They can share their medical records with their doctor(s), make medical appointments, and can also enter data manually to aid condition monitoring.

Box 3.9. Patient-provider portals in Finland and Canada

The Oulu Self Care Service in Finland

In Finland, in 2010 the Oulu Self Care Service was launched in the City of Oulu, northern Finland. It is a web-based communication platform for patients and professionals. It makes information available to encourage healthier life styles and disease prevention (Lupiañez-Villanueva, Sachinopoulou and Theben, 2015[100]). The e-service platform also provides self-care services including secure communication, live-chat with nurses, booking appointments, checking laboratory results, accessing personal information, a self-care library with content for diabetes, asthma and blood pressure, electronic health checks and digital coaching (e.g. for sleep, stress, weight and exercise). The Oulu Self Care Service has been recognised as a key enabler of the chronic care model to improve health outcomes, and make care more efficient through a shared use of data among health and social care providers. By 2018, the platform had registered approximately 110 000 users, with approximately 14 200 locals using the service each month. The City of Oulu continues to look for opportunities to expand the range of services, and to scale up the services to the entire region over the long term.

miHealth application in Canada

In Canada, the miHealth application is a secure platform for patients and physicians to chat. It allows primary health care practitioners to check in on patients and stay up-to-date with their medical history and patients the ability to access their personal health information, direct message with physicians and view test results. The application works on a subscription basis and allows a patient to hold their health data electronically and link between providers.

Source: OECD (2018[42]), Policy Survey on the Future of Primary Care.

Self-monitoring using smartphones

Smartphone software can be used to remind patients about self-monitoring tasks, but also to send the results of these tasks directly to their medical team. Smartphone applications demonstrate promising results when applied to self-monitoring of physical activity (Ormel et al., 2018[101]), increasing adherence to dietary programmes (Payne et al., 2018[102]), and increasing access to mental health services (Chandrashekar, 2018[103]). Review data on key success factors for smartphone-based apps highlight the importance of individual tailoring and adaptive learning, feedback systems, clinician, peer and technical support and self-monitoring features (Chandrashekar, 2018[103]; Hind and Sibbald, 2015[104]).

The Symptom Checker established in Australia, is an online tool that helps guide consumers to the most appropriate health care and provides evidence-based information and advice for their health issues. It helps patients understand symptoms and possible signs of illness, causes and complications. Patients can find out more about their symptoms and possible causes and get advice on the next steps for their health care, whether it is self-care or talking to a health professional. In the United Kingdom, Babylon Health can deliver personalised health assessments, treatment advice and face-to-face appointments with a doctor 24 hours a day, 7 days a week. The service also allows users to receive drug prescriptions, referrals to health specialists, and to book health examinations. Through the app, patients can get answers about lifestyle and family history to create a health report and get practical insights to make positive lifestyle changes.

Telephone or Internet-based monitoring

Telehealth interventions to support self-management are a widely used and studied modality of services (see also Chapter 2). These include Internet-based and telephone-based monitoring and education, telemedicine or telehealth kiosks (de Iongh et al., 2015[92]). Review data reports the effectiveness of telehealth technologies in improving self-care skills and self-monitoring behaviours, and increasing clinical outcomes among older adults with chronic conditions (Guo and Albright, 2018[105]; Hanlon et al., 2017[106]).

A number of countries have experience with the use of telehealth services. Denmark is one of the most active countries in telemonitoring, with a range of services delivered through two programmes: TeleCare North and the Virtual Hospital (Cravo Oliveira Hashiguchi, 2020[107]). TeleCare North is a telemonitoring programme involving the North Denmark regional authority, its hospitals, GPs and 11 municipalities. The programme combines home resources, including tablets and step counters, videos and e-logs to store and send measurements taken from home, with monthly video conferencing to assess progress. Since 2013, 1 400 patients have been monitored in the context of COPD. The success of this initiative has contributed to its expansion across the country and widened its use to other conditions (Dinesen, Huniche and Toft, 2013[108]; World Health Organization Regional Office for Europe, 2016[109]). The Virtual Hospital programme monitors women with pregnancy complications in their own homes. The project will be scaled nationally in 2020. It allows families with preterm babies to be followed at home using a tablet, a customised scale for

weighing the infant and a measuring tape to monitor the growth of the baby's head, plus families can also request video consultations (Cravo Oliveira Hashiguchi, 2020[107]).

Other OECD countries providing telemonitoring programmes include Austria (as part of the Health Dialogue Diabetes Mellitus campaign which is only offered for a selected group of insured people), the Czech Republic (with telemonitoring programmes on chronic heart failure and diabetes), Ireland (with a telemonitoring programme on epilepsy) and Lithuania (with a telemonitoring programme for palliative care) (Cravo Oliveira Hashiguchi, 2020[107]).

Exploring co-design can make primary health care more responsive to the needs of service users

Co-design (also called "Experienced-based co-design") is an approach that enables staff and patients to co-design services and care pathways, together in partnership. Co-designing services ensures people with experience of a condition to have an equal level of power and influence relative to other health professionals involved.

This involves gathering experience from patients and staff through in-depth interviewing, focus groups or group discussions and identifying priorities for improvement in the delivery of health care services. The material is then presented to staff and patients to explore the findings and work together to identify an improvement strategy.

The method has been applied to a range of clinical services including cancer care, diabetes care, drug and alcohol treatment and mental health care. In Australia, Canada and England, experienced-based co-design already shows promise to improve care quality and change some key aspects of health care delivery. Australia, for instance, used experience-based co-design to improve patient's experiences of mental health services as they transition through tertiary services to primary health care and self-management support. The overarching objective was to understand the experiences of patients, to identify opportunities for service redesign and integration and to develop initiatives aimed at improving consumer experiences of transitions. Three main outputs resulted from the project: i) design and develop consumer information; ii) design, implement and evaluate a consistent post discharge follow-up process; and iii) increase awareness and understanding of the role of community mental health integration projects. Overall analysis of referral patterns between secondary and primary health care appeared to indicate improvements in appropriateness and timeliness of mental health care (AHHA, 2018[110]).

Incentives on the demand side can be used to change patient's behaviour

Incentives may facilitate sought after changes for the delivery of self-management services in primary health care. Different demand-side financing and incentive schemes have been applied in some OECD countries, with the common aim of increasing an individual's choice over preventive care and control over their health and health care. Examples of these different approaches include the following:

- **Health care vouchers or coupons** provide free access or reduce the cost of health care services. This scheme has been used in Florida in the United States for health-related products such as over-the-counter medications where beneficiaries receive vouchers when seeking preventive health services, such as obtaining a flu shot. California's Medicaid programme introduced non-health-related incentives, such as movie tickets or gift certificates, to reward patients who keep up with scheduled well-child visits for their infants and adolescents (The Commonwealth Fund, 2019[111]). In Texas, the Medicaid programme is working to pilot "individual health rewards" to volunteer beneficiaries if they participate to smoking cessation or weight loss programmes. These credits could then be used to purchase additional health services (The Commonwealth Fund, 2019[111]). This model of incentives has proven especially effective for reaching vulnerable population groups. For example, in Germany, to increase the uptake of services for newly arrived

refugees, a model of health care vouchers for accessing primary health care services was introduced (Rolke, Wenner and Razmun, 2018[112]). The vouchers are collected or received via email on a quarterly basis and aim to ensure individuals that would otherwise not have free access to primary health care are able to visit local primary health care providers; decreasing the burden on free inpatient and emergency care (Rolke, Wenner and Razmun, 2018[112]).

- **Personal health budgets** are characterised as a sum of money, typically determined based on a personalised care plan, to support an individual's health and well-being needs (e.g. funding a personal assistant to help with personal care at home or for equipment such as a wheelchair). The modality works by enabling an individual to have the choice and control over decisions about their care and services. The model has been applied in England to support people with long-term conditions (NHS England, 2018[113]; NHS England, 2017[114]). The model is expected to continue to be rolled out with a new target of 200 000 people by 2023-24. Evidence from pilots between 2009 and 2012 found the use of personal health budgets for people using mental health services and for a range of long-term conditions contributed to improved quality of life and well-being, greater choice and control, and reduced total spending for people with high levels of need (Jones et al., 2018[115]).
- **Conditional cash transfers** which were first implemented in low- and middle-income countries, consist of providing cash benefits to families on the condition they engage in activities that generate long-term benefits, such as using preventive care services (Lagarde, Powell-Jackson and Blaauw, n.d.[116]). They work to minimise direct and indirect costs for seeking health services while also addressing more entrenched demand-side obstacles, such as failure to perceive the benefits of preventive health interventions. In the United States, recent evaluation showed that conditional cash transfers led to positive improvements in the health of poor families, notably through greater use of preventive health services (Courtin et al., 2018[117]). In Germany, supporting self-management is backed by financial resources; statutory health insurance companies pay EUR 1.05 per insured person to promote self-help (Trojan, Kofahl and Nickel, 2017[118]). Review data finds the use of conditional cash transfers can increase the uptake of preventive services. There is also data that suggests participation increases with the amount of the incentive (Agency for Healthcare Research and Quality, 2014[119]).

3.4. Conclusions

A large body of evidence shows that strong primary health care is associated with improved health outcomes and more people-centred care. As the first point of contact with the health care system, and as a trusted source of information, primary health care teams are in a unique position to advise patients on lifestyles and health behaviour, to administer preventive care, and to manage and control the progress of chronic conditions (notably through self-management, health coaching and counselling). This is ever more needed, particularly in OECD countries, where citizens' expectations about services are high, societies are ageing; and complex cases are costly.

Yet, despite this strong evidence-base, recent international data show that too many patients with chronic conditions do not receive the recommended preventive care and that there are significant problems with care co-ordination between primary health care, specialists and hospitals. To make sure primary health care realises health gains, more needs to be done to encourage both the effectiveness and responsiveness of primary health care.

A broad set of policy options should be adopted by policy makers. Structural changes in the organisation of care are foremost needed to shift from the traditional solo-practice primary health care model to a proactive, preventive and participatory approach, based on a teams or networks of providers. More teamwork between doctors and other primary health care professionals, backed by portable EHRs, is required to improve prevention and care co-ordination. Changes to the incentives that determine clinical

practice would also support better care co-ordination, notably through the use of bundled payments and population-based payments.

Better measurements of quality and outcomes of primary health care, notably those reported by patients themselves, health coaching and counselling, and implementing co-design for primary health care services are crucial components in supporting greater responsiveness in primary health care. The potential of self-management services offered by technology-based platforms should also be harnessed to provide personalised care to empowers users to live healthier lifestyles.

References

Agency for Healthcare Research and Quality (2014), "Wellness and health promotion programs use financial incentives to motivate employees AHRQ.", *Agency for Healthcare Research and Quality*.. [119]

AHHA (2018), *Experience Based Co-Design: a toolkit for Australia*, AHHA, https://ahha.asn.au/experience-based-co-design-toolkit. [110]

AHRQ (2016), "Team-Based Primary Care: Convergence of Improving Engagement, Safety, and Enhanced Joy in Practice", *AHRQ Pub. No. 16-0035*, https://micmrc.org/system/files/BEllin%20teambased-1_0.pdf. [54]

Bates, D. and A. Bitton (2010), *The future of health information technology in the patient-centered medical home*, http://dx.doi.org/10.1377/hlthaff.2010.0007. [51]

Bender, J. et al. (2011), "Can pain be managed through the Internet? A systematic review of randomized controlled trials", *Pain*, http://dx.doi.org/10.1016/j.pain.2011.02.012. [98]

Bodenheimer, T. (2007), "Building Teams in Primary Care : Lessons Learned", *California HealthCare Foundation*. [55]

Borgermans, L. et al. (2018), "How Leapfrogging in primary care can contribute to upscaling NCD core services", *Eurohealth*, Vol. 24/1. [38]

Campanella, P. et al. (2016), *The impact of electronic health records on healthcare quality: A systematic review and meta-analysis*, http://dx.doi.org/10.1093/eurpub/ckv122. [60]

Campbell, R. et al. (2003), "Cervical cancer rates and the supply of primary care physicians in Florida", *Family Medicine*. [15]

Chandrashekar, P. (2018), "Do mental health mobile apps work: evidence and recommendations for designing high-efficacy mental health mobile apps", *mHealth*, http://dx.doi.org/10.21037/mhealth.2018.03.02. [103]

Chaudhry, B. et al. (2006), "Systematic review: impact of health information technology on quality, efficiency, and costs of medical care", *Annals of internal medicine*, http://dx.doi.org/10.7326/0003-4819-144-10-200605160-00125. [59]

Chipman, A. (2019), *Value-Based Healthcare In Sweden: Reaching the next level*, Economist Intelligence Unit Limited, https://eiuperspectives.economist.com/sites/default/files/value-basedhealthcareinswedenreachingthenextlevel.pdf. [76]

Colin, M. and D. Acker (2009), "Les centres de santé : une histoire, un avenir", *Santé Publique*, Vol. 21, pp. 57-61, http://dx.doi.org/DOI : 10.3917/spub.090.0057. [45]

Conejo-Cerón, S. et al. (2017), *Effectiveness of psychological and educational interventions to prevent depression in primary care: A systematic review and meta-analysis*, Annals of Family Medicine, Inc, http://dx.doi.org/10.1370/afm.2031. [6]

Coulter A, Entwistle VA, Eccles A, Ryan S, Shepperd S, P. et al. (2015), "Personalised care planning for adults with chronic or long- term health conditions (Review)", *Cochrane Database Syst Rev*, http://dx.doi.org/10.1002/14651858.CD010523.pub2.Copyright. [84]

Courtin, E. et al. (2018), "Conditional cash transfers and health of low-income families in the US: Evaluating the family rewards experiment", *Health Affairs*, http://dx.doi.org/10.1377/hlthaff.2017.1271. [117]

Couturier, B., F. Carrat and G. Hejblum (2016), "A systematic review on the effect of the organisation of hospital discharge on patient health outcomes", http://dx.doi.org/10.1136/bmjopen-2016. [34]

Cravo Oliveira Hashiguchi, T. (2020), "Bringing health care to the patient: An overview of the use of telemedicine in OECD countries", No. 116, OECD, Paris, https://dx.doi.org/10.1787/8e56ede7-en. [107]

de Bakker, D. et al. (2012), "Early results from Adoption of bundled payment for diabetes care in the Netherlands show improvement in care coordination", *Health Affairs*, http://dx.doi.org/10.1377/hlthaff.2011.0912. [67]

de Iongh, A. et al. (2015), *A practical guide to self-management support. Key components for successful implementation*, The Health Foundation, London, https://www.health.org.uk/publications/a-practical-guide-to-self-management-support. [92]

de Iongh, A. et al. (2015), *A practical guide to self-management support : Key components for successful implementation*, The Health Foundation, London, https://www.health.org.uk/publications/a-practical-guide-to-self-management-support. [80]

De Maeseneer, J. (2017), *Family Medicine and Primary Care : At the Crossroads of Societal Change*, LannooCampus, Leuven. [69]

DeJesus, R. et al. (2018), "Impact of a 12-week wellness coaching on self-care behaviors among primary care adult patients with prediabetes", *Preventive Medicine Reports*, http://dx.doi.org/10.1016/j.pmedr.2018.02.012. [86]

Dinesen, B., L. Huniche and E. Toft (2013), "Attitudes of COPD patients towards tele-rehabilitation: A cross-sector case study", *International Journal of Environmental Research and Public Health*, http://dx.doi.org/10.3390/ijerph10116184. [108]

Duijzer, G. et al. (2017), "Effect and maintenance of the SLIMMER diabetes prevention lifestyle intervention in Dutch primary healthcare: A randomised controlled trial", *Nutrition and Diabetes*, http://dx.doi.org/10.1038/nutd.2017.21. [90]

EC (2018), *Vaccination programmes and health systems in the European Union. Expert Panel on effective ways of investing in Health (EXPH)*. [27]

Edwards, S., D. Dorr and B. Landon (2017), *Can personalized care planning improve primary care?*, http://dx.doi.org/10.1001/jama.2017.6953. [78]

European Commission (2018), *Structural Reform Support Service current activities and plans for a future Reform Support Service*, https://ec.europa.eu/health/sites/health/files/non_communicable_diseases/docs/ev_20180928_co07_en.pdf (accessed on 4 July 2019). [57]

Ferrante, J., E. Gonzalez and R. Roetzheim (2000), "Effects of Physician Supply on Early Detection of Breast Cancer", *Journal of the American Board of Family Practice*, Vol. 13, pp. 408-14. [16]

Ferrer, L. (2015), “Engaging patients, carers and communities for the provision of coordinated/integrated health services: strategies and tools.”, *Copenhagen: WHO Regional Office for Europe.*. [94]

Frandsen, B. et al. (2015), “Care fragmentation, quality, and costs among chronically Ill patients”, *American Journal of Managed Care*, Vol. 21/5. [35]

Friedberg, M. et al. (2015), “Effects of a medical home and shared savings intervention on quality and utilization of care”, *JAMA Internal Medicine*, http://dx.doi.org/10.1001/jamainternmed.2015.2047. [48]

Geense, W. et al. (2013), “Barriers, facilitators and attitudes influencing health promotion activities in general practice: An explorative pilot study”, *BMC Family Practice*, http://dx.doi.org/10.1186/1471-2296-14-20. [30]

Guanais, F. et al. (2019), “Primary Health Care and Determinants of the Perception of the Health System and Quality of Care in 17 Countries in LAC and the OECD”, in Guanais, F. et al. (eds.), *From the Patient’s Perspective: Experiences with primary health care in Latin America and the Caribbean*, Inter-American Development Bank, Washington, DC. [8]

Guo, Y. and D. Albright (2018), “The effectiveness of telehealth on self-management for older adults with a chronic condition: A comprehensive narrative review of the literature”, *Journal of Telemedicine and Telecare*, http://dx.doi.org/10.1177/1357633X17706285. [105]

Hanlon, P. et al. (2017), *Telehealth interventions to support self-management of long-term conditions: A systematic metareview of diabetes, heart failure, asthma, chronic obstructive pulmonary disease, and cancer*, http://dx.doi.org/10.2196/jmir.6688. [106]

Hansen, J. et al. (2015), “Living in a country with a strong primary care system is beneficial to people with chronic conditions”, *Health Affairs*, http://dx.doi.org/10.1377/hlthaff.2015.0582. [4]

Hartley, L. (2002), “Examination of primary care characteristics in a community-based clinic”, *Journal of Nursing Scholarship*, Vol. 34/4, pp. 377-382, http://dx.doi.org/10.1111/j.1547-5069.2002.00377.x. [12]

Health Council of Canada (2012), *Self-management support for Canadians with chronic health conditions: a focus for primary health care*, Health Council of Canada, Toronto. [99]

Herrett, E. et al. (2015), “Data Resource Profile: Clinical Practice Research Datalink (CPRD)”, *International Journal of Epidemiology*, http://dx.doi.org/10.1093/ije/dyv098. [73]

Hibbard, J. and J. Greene (2013), “What the evidence shows about patient activation: Better health outcomes and care experiences; fewer data on costs”, *Health Affairs*, http://dx.doi.org/10.1377/hlthaff.2012.1061. [77]

Hind, J. and S. Sibbald (2015), “Mini-Review Article : Smartphone Applications for Mental Health – A Rapid Review WURJ”, *Western Undergraduate Research Journal: Health and Natural Sciences*, http://dx.doi.org/10.5206/wurjhns.2014-15.16. [104]

Housden, L., S. Wong and M. Dawes (2013), “Effectiveness of group medical visits for improving diabetes care: A systematic review and meta-analysis”, *CMAJ*, http://dx.doi.org/10.1503/cmaj.130053. [81]

Hujala Anneli et al. (2016), *The POTKU project (Potilas kuljettajan paikalle, Putting the Patient in the Driver's Seat), Finland*, http://www.icare4eu.org/pdf/POTKU_Case_report.pdf (accessed on 20 May 2019). [61]

Hussey, P. et al. (2012), "Closing the quality gap: revisiting the state of the science (vol. 1: bundled payment: effects on health care spending and quality).", *Evidence report/technology assessment*. [65]

IGAS (2013), *Les centres de santé : Situation économique et place dans l'offre de soins de demain*, IGAS, Rapport RM2013-119P, http://www.igas.gouv.fr/IMG/pdf/RM2013-119P-Centres_de_sante.pdf. [46]

Jacobson Vann, J. et al. (2018), *Patient reminder and recall interventions to improve immunization rates*, http://dx.doi.org/10.1002/14651858.CD003941.pub3. [26]

Jakab, M. et al. (2018), *Health systems respond to noncommunicable diseases: time for ambition*, WHO Regional Office for Europe, Copenhagen. [91]

Jakab, M. et al. (2018), "Health systems respond to NCDs: the opportunities and challenges of Leap-frogging", *Eurohealth*. [39]

Jones, K. et al. (2018), *Personal health budgets: Targeting of support and the service provider landscape*, http://www.pssru.ac.uk. [115]

Kringos, D. et al. (2013), "Europe's strong primary care systems are linked to better population health but alsoto higher health spending", *Health Affairs*, Vol. 32/4, pp. 686-694, http://dx.doi.org/10.1377/hlthaff.2012.1242. [3]

Lagarde, M., T. Powell-Jackson and D. Blaauw (n.d.), *Managing incentives for health providers and patients in the move towards universal coverage*, http://www.hsr-symposium.org. [116]

Levine, D., B. Landon and J. Linder (2019), "Quality and Experience of Outpatient Care in the UNited States for Adults with and Without Primary Care", *JAMA Internal Medicine*, Vol. 179/3, pp. 363-372. [9]

Liddy, C. et al. (2014), "Health coaching in primary care: A feasibility model for diabetes care", *BMC Family Practice*, http://dx.doi.org/10.1186/1471-2296-15-60. [82]

Lupiañez-Villanueva, F., A. Sachinopoulou and A. Theben (2015), *Oulu Self-Care (Finland) Case Study Report*, European Commission Joint Research Centre, Luxembourg, http://dx.doi.org/10.2791/692203. [100]

Luquis, R. and H. Paz (2015), "Attitudes About and Practices of Health Promotion and Prevention Among Primary Care Providers", *Health Promotion Practice*, http://dx.doi.org/10.1177/1524839914561516. [31]

MacInko, J., B. Starfield and T. Erinosho (2009), *The impact of primary healthcare on population health in low- and middle-income countries*, http://dx.doi.org/10.1097/JAC.0b013e3181994221. [2]

Macinko, J., B. Starfield and L. Shi (2003), "The contribution of primary care systems to health outcomes within Organization for Economic Cooperation and Development (OECD) countries, 1970-1998", *Health Services Research*, http://dx.doi.org/10.1111/1475-6773.00149. [1]

Ministère des Solidarités et de la Santé (n.d.), *National program « Ma santé 2022 »*, https://solidarites-sante.gouv.fr/systeme-de-sante-et-medico-social/ma-sante-2022-un-engagement-collectif/ (accessed on 2 September 2019). [44]

Mousquès, J. (2011), "Le regroupement des professionnels de santé de premiers recours : quelles perspectives économiques en termes de performance ?", *Revue française des affaires sociales*, Vol. 2-3, p. pages 253 à 275. [41]

NAP (2019), *State of the science: a synthesis of interprofessional collaborative practice research*, National Academies of Practice, Lexingtion, https://napractice.org/Portals/0/NAP%20State%20of%20the%20Science%20-%20Final%20for%20publication.pdf. [52]

National Observatory of Health care Centers (2018), *Les chiffres nationaux 2018 de l'observatoire des CDS*, https://www.fncs.org/les-chiffres-nationaux-2018-de-l-observatoire-des-cds (accessed on 2 September 2019). [47]

NCQA (2017), *Patient-Centered Medical Home Recognition*. [49]

NHS England (2018), *Personal health budgets (PHBs) NHS England.*. [113]

NHS England (2017), *Personal health budgets and Integrated Personal Commissioning National expansion plan*, NHS Policy Document 06627. [114]

Oderkirk, J. (2017), "Readiness of electronic health record systems to contribute to national health information and research"*, OECD Health Working Papers*, No. 99, OECD Publishing, Paris, https://dx.doi.org/10.1787/9e296bf3-en. [120]

OECD (2018), *Policy Survey on the Future of Primary Care*. [42]

OECD (2017), *Caring for Quality in Health: Lessons Learnt from 15 Reviews of Health Care Quality*, OECD Reviews of Health Care Quality, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264267787-en. [74]

OECD (2017), *New Health Technologies: Managing Access, Value and Sustainability*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264266438-en. [58]

OECD (2017), *Obesity Update 2017*, OECD, Paris, http://www.oecd.org/health/obesity-update.htm. [22]

OECD (2016), *Better Ways to Pay for Health Care*, OECD Health Policy Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264258211-en. [64]

OECD (2015), *Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care*, OECD Health Policy Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264233010-en. [21]

OECD (2015), *Health Data Governance: Privacy, Monitoring and Research*, OECD Health Policy Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264244566-en. [71]

OECD (2010), *Obesity and the Economics of Prevention: Fit not Fat*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264084865-en. [88]

OECD/EU (2018), *Health at a Glance: Europe 2018: State of Health in the EU Cycle*, OECD Publishing, Paris/EU, Brussels, https://doi.org/10.1787/health_glance_eur-2018-en. [96]

Olsen, J. and B. Nesbitt (2010), "Health Coaching to Improve Healthy Lifestyle Behaviors: An Integrative Review", *American Journal of Health Promotion*, http://dx.doi.org/10.4278/ajhp.090313-lit-101. [79]

Ormel, H. et al. (2018), "Self-monitoring physical activity with a smartphone application in cancer patients: a randomized feasibility study (SMART-trial)", *Supportive Care in Cancer*, http://dx.doi.org/10.1007/s00520-018-4263-5. [101]

Or, Z., J. Wang and D. Jamison (2005), "International differences in the impact of doctors on health: A multilevel analysis of OECD countries", *Journal of Health Economics*, http://dx.doi.org/10.1016/j.jhealeco.2004.09.003. [20]

Outcomes Star (2019), "well-being Star: The outcomes star for adults self-managing health conditions", *Triangle Consulting Social Enterprise Limited*. [85]

Patel, M. et al. (2019), "Increase in Measles Cases — United States, January 1–April 26, 2019", *MMWR. Morbidity and Mortality Weekly Report*, http://dx.doi.org/10.15585/mmwr.mm6817e1. [23]

Patil, S. et al. (2018), *Effect of peer support interventions on cardiovascular disease risk factors in adults with diabetes: A systematic review and meta-analysis*, http://dx.doi.org/10.1186/s12889-018-5326-8. [93]

Payne, J. et al. (2018), "Defining Adherence to Dietary Self-Monitoring Using a Mobile App: A Narrative Review", *Journal of the Academy of Nutrition and Dietetics*, http://dx.doi.org/10.1016/j.jand.2018.05.011. [102]

Peikes, D. et al. (2018), "The Comprehensive Primary Care Initiative: Effects on spending, quality, patients, and physicians", *Health Affairs*, http://dx.doi.org/10.1377/hlthaff.2017.1678. [43]

Pimperl, A. et al. (2017), "Case Study: Gesundes Kinzigtal, Germany - Accountable care in Practice: Global perspectives", *Research Gate - Technical Report*. [70]

Reed, M. et al. (2012), "Outpatient electronic health records and the clinical care and outcomes of patients with diabetes mellitus", *Annals of Internal Medicine*, http://dx.doi.org/10.7326/0003-4819-157-7-201210020-00004. [63]

Reynders, D. et al. (2018), *A new drive for primary care in Europe rethinking the assessment tools and methodologies : report of the Expert Group on Health Systems Performance Assessment*, Publications Office of the European Union. [75]

Roetzhiem, RG; Pal, N; Gonzalez, EC; Ferrante, JM; Van Durme, D. (1999), "The Effects of Physican Supply on the Early Detection of Colorectal Cancer", *The Journal of Family Practice*. [17]

Rolke, K., J. Wenner and O. Razmun (2018), "Organization of access to primary health care for newly arrived refugees in Germany: a case study in the federal state of North Rhine-Westphalia.", *Public Health Panorama*, Vol. 4/4, pp. 491-735. [112]

Sans-Corrales, M. et al. (2006), *Family medicine attributes related to satisfaction, health and costs.*, http://dx.doi.org/10.1093/fampra/cmi112. [5]

Santana, M. et al. (2019), *Measuring patient-centred system performance: A scoping review of patient-centred care quality indicators*, BMJ Publishing Group, http://dx.doi.org/10.1136/bmjopen-2018-023596. [32]

Sassi, F. (ed.) (2015), *Tackling Harmful Alcohol Use: Economics and Public Health Policy*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264181069-en. [89]

Saver, B. (2002), "Financing and Organization Findings Brief", *Academy for Research and Health Care Policy*, Vol. 5/1-2. [11]

Schäfer, W. et al. (2016), "Two decades of change in European general practice service profiles: Conditions associated with the developments in 28 countries between 1993 and 2012", *Scandinavian Journal of Primary Health Care*, Vol. 34/1, pp. 97-110, http://dx.doi.org/10.3109/02813432.2015.1132887. [28]

Schäfer, W. et al. (2019), "Are people's health care needs better met when primary care is strong? A synthesis of the results of the QUALICOPC study in 34 countries", *Primary Health Care Research & Development*, Vol. 20, p. e104, http://dx.doi.org/10.1017/S1463423619000434. [37]

Schneider, A. et al. (2016), "Costs of coordinated versus uncoordinated care in Germany: Results of a routine data analysis in Bavaria", *BMJ Open*, http://dx.doi.org/10.1136/bmjopen-2016-011621. [36]

Schottenfeld, L. et al. (2016), *Creating Patient-Centered Team-Based Primary Care*, Agency for Healthcare Research and Quality, https://pcmh.ahrq.gov/page/creating-patient-centered-team-based-primary-care. [40]

Schuchman, M., M. Fain and T. Cornwell (2018), "The Resurgence of Home-Based Primary Care Models in the United States", *Geriatrics*, http://dx.doi.org/10.3390/geriatrics3030041. [50]

Shi, L. (2005), "Primary Care, Specialty Care, and Life Chances", *International Journal of Health Services*, http://dx.doi.org/10.2190/bduu-j0jd-bvex-n90b. [13]

Shi, L. and B. Starfield (2005), "Primary Care, Income Inequality, and Self-Rated Health in the United States: A Mixed-Level Analysis", *International Journal of Health Services*, http://dx.doi.org/10.2190/n4m8-303m-72ua-p1k1. [10]

Sinsky, C. and T. Bodenheimer (2019), "Powering-Up Primary Care Teams: Advanced Team Care With In-Room Support", *Ann Fam Med*, Vol. 17/4, pp. 367-371, http://dx.doi.org/10.1370/afm.2422. [53]

Socha-Dietrich, K. (2019), *Interprofessional Teams for Complex Patients in Primary Health Care: Patients' and health professionals' experience. Fast Track Paper presented at the 25th Session of the Health Committee*, OECD, Paris. [56]

Starfield, B., L. Shi and J. Macinko (2005), "Contribution of Primary Care to Health Systems and Health", *The Milbank Quaterly*. [14]

Stokes, J. et al. (2018), *Towards incentivising integration: A typology of payments for integrated care*, http://dx.doi.org/10.1016/j.healthpol.2018.07.003. [68]

Struijs, J. and C. Baan (2011), "Integrating Care through Bundled Payments — Lessons from the Netherlands", *New England Journal of Medicine*, http://dx.doi.org/10.1056/nejmp1011849. [66]

Taleghani, F. et al. (2012), "The effects of peer support group on promoting quality of life in patients with breast cancer", *Iranian Journal of Nursing and Midwifery Research*. [95]

The Commonwealth Fund (2019), *Public Programs Are Using Incentives to Promote Healthy Behavior*, https://www.commonwealthfund.org/publications/newsletter-article/public-programs-are-using-incentives-promote-healthy-behavior. [111]

Thornton, J. (2019), "Measles cases in Europe tripled from 2017 to 2018", *BMJ (Clinical research ed.)*, http://dx.doi.org/10.1136/bmj.l634. [24]

Triantafillidis, J. et al. (2017), *Screening for colorectal cancer: The role of the primary care physician*, http://dx.doi.org/10.1097/MEG.0000000000000759. [19]

Trivedi, D. (2017), *Cochrane Review Summary: Interventions for improving outcomes in patients with multimorbidity in primary care and community settings*, Cambridge University Press, http://dx.doi.org/10.1017/S1463423616000426. [7]

Trojan, A., C. Kofahl and S. Nickel (2017), "Patient-Centered Medicine and Self-Help Groups in Germany: Self-Help Friendliness as an Approach for Patient Involvement in Healthcare Institutions", in *Patient Centered Medicine*, InTech, http://dx.doi.org/10.5772/66163. [118]

van Rinsum, C. et al. (2018), "The coaching on lifestyle (CooL) intervention for overweight and obesity: A longitudinal study into participants' lifestyle changes", *International Journal of Environmental Research and Public Health*, http://dx.doi.org/10.3390/ijerph15040680. [87]

Whitehead, L. and P. Seaton (2016), *The effectiveness of self-management mobile phone and tablet apps in long-term condition management: A systematic review*, http://dx.doi.org/10.2196/jmir.4883. [97]

WHO (2019), *New measles surveillance data for 2019*, Surveillance data, https://www.who.int/immunization/newsroom/measles-data-2019/en/. [25]

WHO (2018), *Continuity and coordination of care A practice brief to support implementation of the WHO Framework on integrated people-centred health services*, http://dx.doi.org/Licence: CC BY-NC-SA 3.0 IGO. [33]

Wolf, A. et al. (2019), "Data Resource Profile: Clinical Practice Research Datalink (CPRD) Aurum", *International Journal of Epidemiology*, http://dx.doi.org/10.1093/ije/dyz034. [72]

World Health Organization Regional Office for Europe (2016), *Lessons from transforming health services delivery: compendium of initiatives in the WHO European Region*, http://www.euro.who.int/pubrequest. [109]

Yano, E. et al. (2007), "Primary care practice organization influences colorectal cancer screening performance", *Health Services Research*, http://dx.doi.org/10.1111/j.1475-6773.2006.00643.x. [18]

Yarnall, K. et al. (2003), "Primary care: Is there enough time for Prevention?", *Am J Public Health*, Vol. 93/4, pp. 635–641. [29]

Young, C., F. Boyle and A. Mutch (2016), "Are Care Plans Suitable for the Management of Multiple Conditions?", *Journal of Comorbidity*, http://dx.doi.org/10.15256/joc.2016.6.79. [83]

Zhou, Y. et al. (2010), "Improved quality at Kaiser permanente through e-mail between physicians and patients", *Health Affairs*, http://dx.doi.org/10.1377/hlthaff.2010.0048. [62]

Notes

[1] The analysis is controlled for health needs and overall health system characteristics.

[2] The Netherlands' large increase is in part due to the low score for 1993 (0.05). The figure almost tripled by 2012 (0.14) but is still below the average (0.19).

[3] Improving health literacy is also a key strategy to support individuals in their health behaviour and improve health outcomes for all. This topic is further explored in Chapter 4 of this report.

[4] As already mentioned in Chapter 2, OECD countries vary greatly in the degree to which GPs are using EHR. In 2017, 15 countries reported that at least 90% of primary health care physician's offices were capturing patient diagnosis and treatment information in EHR (Oderkirk, 2017[120]). By contrast, Mexico and Poland reported that less than one-third of primary health care physician's offices were using EHR.

[5] Spain uses risk stratification as part of its integrated care programme implemented in the Basque Country. Care delivery is managed by Integrated Care Organisations (ICO) which oversee primary and hospital care for a defined population and provide preventive interventions and personalised medical care. There are three important health care providers as part of the ICO: hospital-based professionals, primary health care teams and a 24 hours, 7 days a week nurse-led call centre.