

# UNIVERSAL HEALTH COVERAGE AND HEALTH OUTCOMES

Final Report

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### 1. Introduction<sup>1</sup>

- 1. Japan has been leading efforts to promote Universal Health Coverage (UHC) worldwide. The goal behind these efforts is to improve health outcomes by making access to high-quality health services more affordable and equitably distributed.
- 2. UHC means that people have access to the health care services that they need without undue financial hardship. UHC is commonly understood to consist of three interrelated components: the population covered, the range of services made available; and the extent of financial protection from the costs of health services (Stuckler, Feigl, Basu, & McKee, 2010; WHO, 2010).
- 3. Nearly all OECD countries have achieved UHC, and their experience should be the main source of evidence as to why UHC is desirable, when it should be introduced, and how it should be achieved. Better understanding of the links between life expectancy and UHC and of the links between coverage arrangements and gaps between life expectancy and healthy life expectancy would contribute to efforts to monitor progress towards the achievement of Goal 3 of the Sustainable Development goals.
- 4. This report addresses four key questions. First, to what extent has the achievement of UHC in OECD countries contributed to improved population health outcomes? Second, is UHC affordable for low-and middle-income countries? Third, what are the implications of population ageing for the goal of UHC? Fourth, what are the key policies low- and middle-income countries should consider as they approach UHC. These questions are addressed primarily through new quantitative analyses and reviews of policies from both OECD and non-OECD countries. In-depth country case studies provide further lessons of how selected OECD countries have achieved and sustained UHC.
- 5. Based on the findings of this report, a number of key recommendations are worth highlighting:
  - UHC improves health outcomes and provides financial protection against impoverishing health care cost; all countries should therefore set to achieve UHC;
  - UHC is affordable for a large number of middle-income countries; reforms to create fiscal space and convert out-of-pocket payments into pooled funding for health are within reach;
  - Rapid population ageing worldwide means that efforts to achieve UHC cannot be delayed; countries must act even faster than OECD counties did when they first introduced UHC;
  - The experience of OECD countries shows that a successful UHC strategy requires the right set of
    policies.
    - Covering the whole population is non-negotiable, and depth of financial coverage should be prioritised over breath of service coverage;

UHC in ageing societies is one of the themes at a G7 health summit in Kobe, in September 2016. This report on the review of countries on UHC is commissioned by the Japanese Ministry of Health, Labour and Welfare as an input for the G7 meeting.

- Fiscal space should be secured without an over-reliance on payroll taxes, as working age cohorts will dwindle;
- Skip a generation of service delivery reforms, by investing early on in health promotion and disease prevention; strengthening primary care; and making better use of data through advanced information systems.

# 2. Universal health coverage improves health

# 2.1 Life expectancy has a positive correlation with core components of health coverage, as well as overall healthcare resources

- 6. That UHC improves health outcomes makes intuitive sense it helps ensure everyone in a society can use health services when they need them. But looking at the data gives a more precise idea of the impact of UHC on health.
- 7. For a selection of OECD countries and emerging economies (Brazil, China, Colombia, Costa Rica, India, Indonesia and Russia), a clear positive association exists between life expectancy at birth and UHC indicators reflecting the three core components of health coverage the population covered by a core set of services (population coverage); out-of-pocket payments (financial coverage); GP density (service coverage) as well as total health expenditures (as an overall health coverage proxy) (Figure 1).

#### 8. In particular:

- A positive correlation exists between population coverage and life expectancy, though this is mostly driven by India and Indonesia (Panel A).
- A clear negative relationship exists between out-of-pocket (OOP) payments and life expectancy, suggesting that financial risk protection is associated with health outcomes (Panel B).
- GP density (service coverage) is positively associated with life expectancy (Panel C).
- The relationship between total health expenditure and life expectancy is also positive, though the United States stands out as an outlier (Panel D).

Figure 1. Positive association between UHC indicators and life expectancy (2013 or latest year, selected countries)

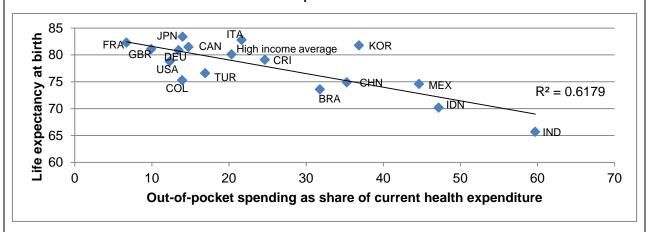
Panel A. Life expectancy at birth is positively associated with population covered with public funds for a core set of services

High income average GBR DERN KOR
USA DERN KOR
USA DERN KOR
USA DERN KOR
R2 = 0.5507

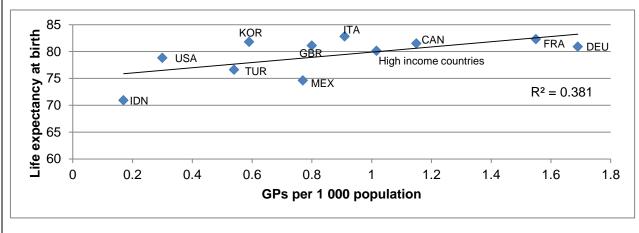
R2 = 0.5507

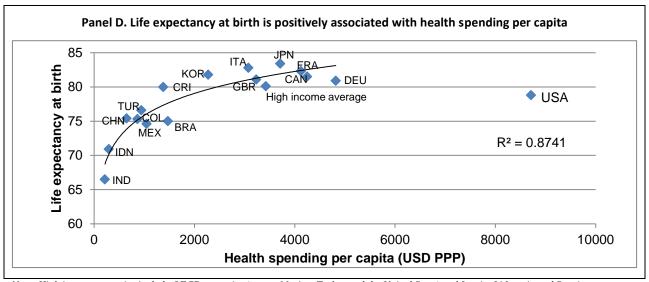
% of population with public health coverage

Panel B. Life expectancy at birth is negatively associated with out-of-pocket spending as a share of current health expenditure



Panel C. Life expectancy versus increases with density of general practitioners (GPs) per 1 000 population





Note: High income countries include OECD countries (except Mexico, Turkey and the United State) and Latvia, Lithuania and Russia. Source: OECD Health Statistics 2015.

# 2.2 Greater spending on health has made a major contribution to better health outcomes, but the wider determinants of health are also important

- 9. Increased spending on health (a proxy for overall health coverage) has provided a significant contribution to life expectancy gains in recent decades. However, the wider determinants of health are also important, as new OECD analysis shows (James et al, forthcoming). Analysis of data across OECD countries for the period 1990 to 2013 shows that:
  - Increased health spending contributed to about 1 year of observed life expectancy gains;
  - Education was also a key driver, with expanded coverage contributing a further 1.19 years;
  - Higher incomes contributed 0.81 years;
  - Reductions in air pollution contributed to about a 1 year gain in life expectancy, with access to improved sanitation facilities a further 0.12 years;
  - Behavioural aspects are also important. In particular, reduced smoking contributed a further gain
    of 0.55 years, with reduced alcohol consumption adding 0.08 years (note: increased obesity rates
    had a counterintuitive positive correlation with life expectancy, but this depended on the exact
    level of national income).

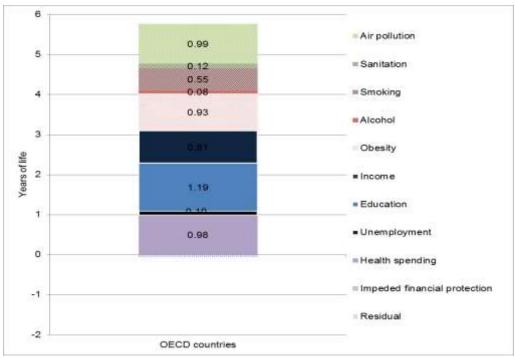


Figure 2. Health spending, education, income and air pollution are some of the key contributors to life expectancy gains in OECD countries from 1990 to 2013

Source: James, Devaux and Sassi (forthcoming). Inclusive Growth and Health

- 10. These results also hold true in low- and middle-income countries, although the magnitude of effects of these factors differs. In particular, income and education were found to have a much larger effect in low to middle-income countries.
- 11. A fundamental policy message emerging from this analysis is that coordinated action is required across ministries responsible for education, income, social protection and the environment, alongside health ministries. Partnerships with the private sector will also be important, particularly in relation to working conditions. Such collaborations can maximise the health impact of expanded health coverage.

# 2.3 Countries' experiences demonstrate the positive impact of universal health coverage on health outcomes

- 12. A number of earlier studies have produced consistent findings to the new data analysis presented in this report. For example:
  - Across 153 countries for the period 1995-2008, a 10% increase in government spending on health
    was associated with an average reduction in under-five mortality by 7.9 deaths per 1000, and
    adult mortality by 1.6 (women) and 1.3 (men) deaths per 1000 (Moreno-Serra & Smith, 2012).
  - A 10% increase in government health expenditure per head led to reductions of 2.5-4.2% in mortality for children younger than 5 years and 4.2-5.2% reductions in maternal mortality rates (Bokhari, Gai, & Gottret, 2007).

- Earlier cross-country studies also found similar positive effects of increased government spending on reducing mortality (Bokhari, Gai, & Gottret, 2007; Moreno-Serra & Smith, 2012; Wagstaff & Claeson, 2004).
- A higher reliance on OOP payments has been shown to contribute to worse health outcomes (United Nations Sustainable Development Solutions Network, 2015). For example, a 10% higher share of OOP payments was significantly associated with an average rise of 11.6 female deaths per 1000 (Moreno-serra & Smith, 2011; United Nations Sustainable Development Solutions Network, 2015).
- In the United States, better adult and infant health outcomes have been clearly linked to the implementation and expansion of the Medicare and Medicaid schemes (Moreno-Serra & Smith, 2015).
- The introduction of the universal coverage scheme in Thailand has resulted in an estimated decrease of 6.5 infant deaths per 1000 births among the poor from 2001 to 2005 (Farahani, Subramanian, & Canning, 2010; Gruber, Hendren, & Townsend, 2013; Martin, Rice, & Smith, 2008).
- 13. Country case studies in high-income and middle-income settings provide further empirical evidence supporting UHC's positive impact on health (see Annex for further details on these and other country case studies). For example:
  - Japan's mortality rates for communicable diseases in children and young adults started to decline
    and life expectancy at birth increased in the 1950s and early 1960s, when the government scaled
    up population health interventions and introduced universal health coverage (Ikeda et al., 2011).
  - After the introduction of the Health Transformation Programme (HTP) in 2003, life expectancy in Turkey increased by 4 years between 2003 and 2013, half-a-year more rapidly than the average across OECD countries. Following an increased investment in the supply of primary care services, maternal and child health and infectious diseases improved significantly.
  - Germany's social health insurance (SHI) -- along with favourable socioeconomic factors -- has contributed to an improvement in population health outcomes. Life expectancy at birth reached 81 years old in 2013, an increase of more than 10 years since 1960.

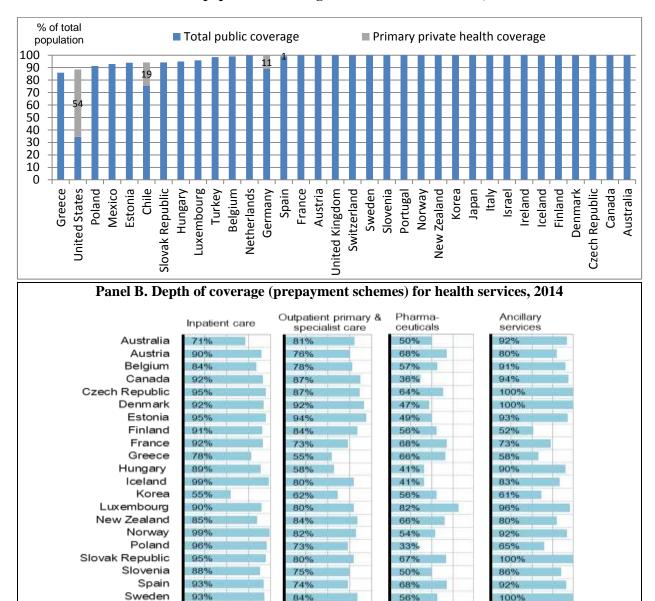
# 3. Universal health coverage is affordable for middle-income countries, but requires strong political commitment

### 3.1 Without active government intervention, the transition to universal health coverage will be lengthy

14. The majority of OECD member countries have achieved UHC today, offering all of their citizens affordable access to a core set of health services (Figures 3a and 3b). Only a handful of OECD countries

report that a very small or greater proportion of their populations do not have health coverage (Austria, Belgium, Chile, Greece, Japan, Luxembourg, Mexico, Turkey, and the United States<sup>2</sup>) (Paris et al., 2016).

Figure 3. Nearly all OECD countries have achieved UHC Panel A. population coverage for a core set of services, 2014



Source: based on Paris et al (2016), data from OECD Health Statistics 2015 & 2016, http://dx.doi.org/10.1787/health-data-en

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Recently, the Affordable Care Act in the United States was implemented in 2014 and reduced the share of uninsured population from 14.8% to 12.0%. By age, the largest gains in coverage were for non-elderly adults, especially those aged 19 to 35 (5.3 percentage point). By income, the largest gain (5.5 percentage points) occurred for those with family income between 100 and 137% of the Federal Poverty Line. Another study showed a consistent result (Berk & Fang, 2016; Courtemanche, Marton, & Yelowitz, 2016; Mcmorrow, Kenney, Long, & Anderson, 2015)

- 15. Whilst UHC in many of these countries has been established for a number of decades, the transition to UHC has often taken considerable time. Achieving UHC took 127 years in Germany, 84 in Israel, 79 in Austria, 72 in Luxembourg, 36 in Japan and 12 years in Korea (Carrin & James, 2005; OECD, 2003).<sup>3</sup>
- 16. A bottleneck in many countries with contributory systems such as social health insurance has been to extend coverage to the self-employed and those working in smaller, unregulated firms often referred to as the informal sector. For example, in Germany, it took 58 years to include various types of the self-employed, such as craftsmen and artists, into their social health insurance scheme. Other European countries with contributory-based systems had similar experiences.
- 17. In Asia, various governments actively intervened to hasten the transition to UHC.
  - In Japan, the National Citizens' Health Insurance (CHI) Law was enacted in 1938 to expand coverage for people previously uncovered, notably poor people in underserved rural villages, farmers and self-employed workers in rural communities, and small companies, although the last municipalities were only reached in 1961 (Ogawa, et al., 2003; Carrin & James, 2005).
  - In Korea, coverage was systematically expanded from large to medium and small-size companies, and from the employed to the self-employed individuals (Table 1) (OECD, 2003).
  - In Thailand, population coverage increased from about a third of the population in 1991 to over 95% in 2003, mainly because the government subsidised the inclusion of the near-poor population into their Universal Coverage Scheme (Evans et al., 2012).

Table 1. Expansion of coverage for the National Health Insurance (NHI) and Medical Aid Program for the low income households (MAP) in Korea

Population covered (%)		ion covered (%)		
Year	NHI	MAP	Coverage	
1977	8.6	5.7	Includes firms with over 500 workers	
1980	24.2	5.6	Includes firms with over 300 workers, government employees and teachers (since 1979).	
1985	44.1	8	Includes firms with over 16 workers (since 1982)	
1990	93.9	9.2	Universal coverage in 1989: includes firms with over 5 workers, urban and rural self-employed.	
1995	97.6	3.1	Benefits expanded to 180 days. Health examinations and high-cost technology (e.g., CT) included.	
1999	96.4	3.5	Benefit days expanded to all year.	

NHI: National health insurance.

MAP: Medical aid programme.

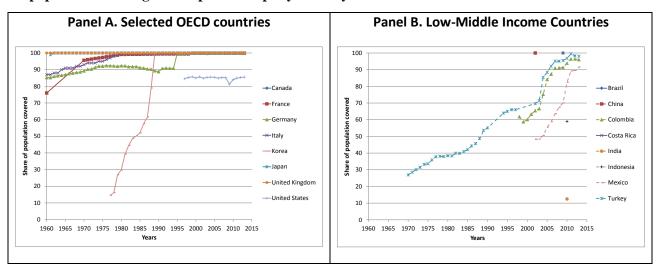
Note: Differences can exist between total population and total covered population. The concept of "benefit days" refers to the overall duration of medical and drug treatments.

Source: OECD (2013) OECD Reviews of Health Care Systems - Korea.

This analysis was based on the number of years between the first law on health insurance and the final law voted to implement universal health coverage

18. Significant differences can be seen in the pace of expansion of coverage between selected OECD countries and low- and middle income countries (Figure 4). Selected high-income OECD countries already reached high population coverage prior to 1960 (Panel A). The exception is Korea, which intensively expanded population coverage from 1977 to 1995 (Table 1). In selected low- and middle-income countries (LMIC), population coverage levels have been accelerated during the 2000s (Panel B). Yet in many of these and other LMICs, financial coverage has remained incomplete, with people often facing high out-of-pocket payments when utilising health care.

Figure 4. Many OECD countries reached universal population coverage prior to 1960, whilst population coverage has expanded rapidly in many low- and middle-income countries since 2000



Source: OECD Health Statistics 2015; ILO (2014). Note: The definition of health coverage may differ from OECD and non-OECD countries.

# 3.2 Universal health coverage is achievable for middle-income countries; low-income countries can still make substantive progress

- 19. A greater amount of income per capita helps countries to expand fiscal space for health through premiums, contributions and tax revenues. Economic growth has -- along with political commitment -- pushed the introduction and expansion of health coverage to the entire population. A 1% increase in Gross Domestic Product (GDP) per capita has been found to be associated with a 5.9% increase in the probability of adopting UHC (Carrin and James 2003). China, Japan, Korea, Thailand and Turkey all had sustained periods of rapid economic growth around the time when UHC was introduced:
  - In Japan, strong economic growth after the recovery from World War II's devastation through 1973 provided the fiscal space to expand benefit levels of UHC to all.
  - Turkey's introduction of UHC occurred around the time when the country's economy grew by an average of almost 5.5 percent between 2002 and 2011, compared with the pre-2001 average of around 4 percent. Per capita income tripled over the period to reach \$10,444 in 2011 (Aran, Meltem; Ozceli, 2014).

• Although Thailand's introduction took place in 2002 right in the aftermath of the 1997 Asian financial crisis and the GDP per capita (in constant 2010 Purchasing Power Parties (PPP) terms) was US\$9,800, about the same as the pre-crisis figure, Thailand's economy had been growing rapidly to that, from \$6,500 per capita in 1990 and \$14,000 per capita in 2014 (figures in constant 2010 PPP terms) (Figure5).

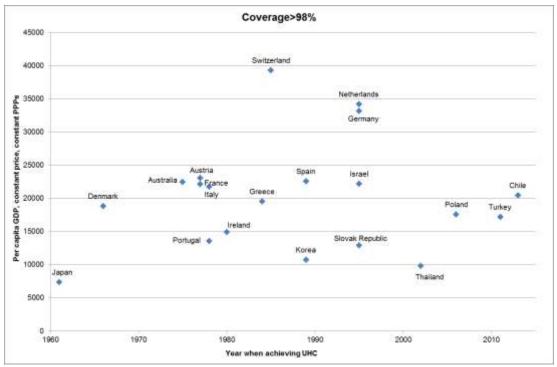
GDP per capita constant US\$ 15,000 2002: Universal Coverage Scheme (UCS) 13,000 1990: 11,000 Social Security Scheme 9,000 1983: Voluntary **Health Care** 2001: 30% 7,000 Scheme Uninsured 1997: Asian 5,000 financial crisis 3.000 

Figure 5. Path to universal health coverage in Thailand against GDP per capita, 1980-2010 (2010 prices, using Purchasing Power Parities)

Source: (Evans, et al., 2012) and International Monetary Fund, World Economic Outlook Database, April 2016

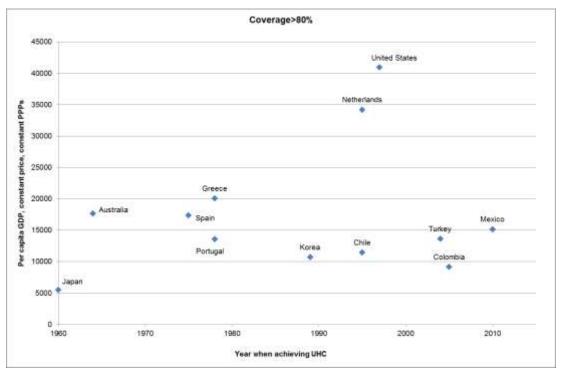
- 20. Economic growth and development facilitate UHC, but this not enough by itself. Levels of economic wealth of selected OECD and non-OECD countries varied considerably when population coverage was near-universal (greater than 98%) (Figure 6). GDP per capita (in constant 2010 PPP terms) varied from \$7300 in Japan, \$10,700 in Korea and \$9,800 in Thailand, to over \$30,000 in Germany, the Netherlands and Switzerland. This demonstrates that UHC is achievable for middle-income countries.
- 21. For low-income countries, whilst UHC may be difficult to achieve initially, substantial progress can still be made. Rates of GDP per capita were fairly low when population coverage was 80% across a number of OECD countries. The levels of GDP per capita was around \$5,500 in Japan, and around \$10,000 in Chile, Colombia, Korea and Portugal. These levels are similar to todays' GDP levels of a number of emerging economies in Asia, with India, Laos and Viet Nam having GDP per capita between \$5000 and \$6000, and Indonesia nearer \$10,000.

Figure 6. GDP per capita varied considerably when countries achieved near 100% population coverage



Source: OECD Health Statistics 2015 and authors calculations.

Figure 7. GDP per capita was relatively low when population coverage was 80%



Source: OECD Health Statistics 2015 and authors' calculations

### 3.3 Channelling out-of-pocket spending into mandatory pre-payment pools is the critical first step

- 22. In most middle-income countries, a broad range of health care services is typically already available. Not all are necessarily high quality or high value but, in the absence of UHC, paying out-of-pocket for any care can be catastrophically impoverishing. Voluntary private health care insurance is an inefficient and inequitable solution to the problem (Sagan & Thomson, 2016). Hence, a critical step for policy makers to get right early on is the creation of population-wide pre-payment pools. Shifting financing into mandatory and more inclusive prepayment schemes spreads risk and financial burden in a fair and efficient way. In OECD countries, such schemes have typically been publicly financed.
- 23. Too many low- and middle-income health systems, however, rely heavily on private OOP payments. These payments account for over 60% of total health expenditure in several Asian and other emerging economies (Figure 8). In consequence, public spending can be as low as 2.9% GDP in China, or 1.0% GDP in India (Rao et al., 2014). In contrast, most OECD countries have a more limited reliance on OOP payments, and devote, on average, 6.5% of GDP to publicly-funded pre-payment pools. This is the vast majority of total health expenditure (equivalent to 8.9% GDP; OECD 2015e).

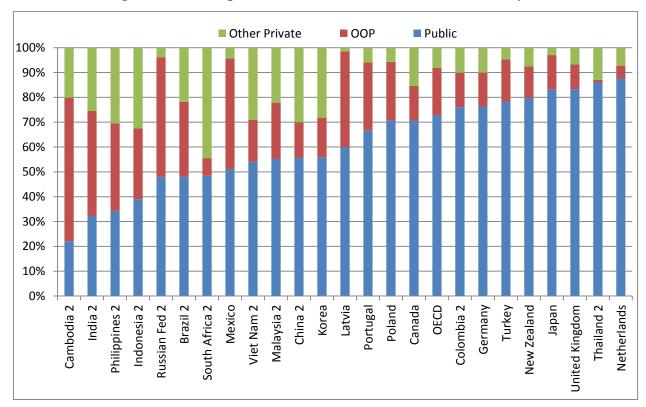


Figure 8. Health expenditure as a share of GDP, 2014 (or nearest year)

OOP: Out-of-Pocket Expenditure 2. Including investments (for other countries, excludes investments). Source: OECD Health Statistics 2016; WHO Global Health Expenditure Database.

24. Successfully channelling current levels of out-of-pocket spending from emerging economies in Asia and elsewhere into pre-payment pools could push public health care spending up to amounts needed

to finance UHC. For instance, the WHO and the Sustainable Development Solutions Network have recommended a target of government health spending being at least 5% of GDP to realise UHC (House, 2014; James, Bayarsaikhan, & Bekedam, 2010; United Nations Sustainable Development Solutions Network, 2015; WHO (World Health Organization), 2009). Governments will also need to subsidise households or individuals below a chosen income threshold, either through a cost contribution in social or community health insurance schemes, or through general tax revenues and guarantees of free-care in non-contributory systems.

- 25. Making the switch, however, from private revenues to publicly-owned pre-paid pools can be challenging, technically and politically. A substantial body of international experience offers insights on addressing key technical aspects. Rwanda and Ghana, for example, achieved UHC by incorporating community-based health insurance schemes into a national scheme, with government subsidies for households unable to afford it. In contrast, other countries have struggled to use community-based health insurance as a complement to employment-based insurance, running into problems of insufficient contributions, high administrative costs and weak purchasing power (Averill & Mariott, 2013a).
- Politically, a critical decision is whether or not to make contributions to the publicly-owned insurance scheme(s) mandatory. Voluntary enrolment is likely to bring about selection bias and/or poor economies of scale (Carrin, Waelkens, & Criel, 2005). Mandatory enrolment overcomes these risks, but may be resisted by population groups unwilling to subsidise others with greater health care needs, or less capacity to pay. Sustained and determined leadership towards equal health care rights, on paper and in practice, irrespective of need or ability to pay is crucial. This can take many years, but is being achieved by an increasing number of low- and middle-income countries. Colombia is an outstanding example, often overlooked (OECD, 2016). In Turkey, payments from the government subsidise low-income people, making up 3% of total contributions (OECD, 2014; Paris et al 2016). In Korea, the government fully finances the Medical Aid Program, which covers beneficiaries of a social welfare programme who are unable to pay contributions to the national social health insurance (Mathauer, Xu, Carrin, & Evans, 2009).

### 4. Universal health coverage is needed all the more as countries age

#### 4.1 A number of OECD countries started to experience ageing populations when they achieved UHC

- 27. Ageing populations make UHC even more imperative, since otherwise older populations will be at greater risk of not receiving needed care. Ageing also has important implications on health revenues, particularly in health systems reliant on payroll taxes.
- 28. Indeed, a number of OECD countries from Europe were already starting to experience population ageing when they achieved UHC from the 1960s and later (Figure 9). For example, in 14 of the 15 European countries with data, more than 10% of the population were aged 65 or over when UHC was achieved, reaching over 15% in Austria and Germany. On the other hand, Japan and Korea were both relatively young countries when they achieved UHC in 1961 and 1989. To a lesser extent, Australia and Finland also had young populations. For Chile and Turkey, countries that achieved UHC in recent years, the share of 65 years and over was also relatively low.

Coverage>98% 20 % of Population 65 years old and over Austria Germany Switzerland 15 Poland Belgium Spain Netherlands France Denmark Greece Slovak Republic İtaly Chile Portugal • Ireland 10 Israel Finland Australia Turkey Japan Korea 5 0 1960 1970 1980 1990 2000 2010 Year when achieving UHC

Figure 9. A number of OECD countries (except Japan and Korea) had relatively high numbers of older people when they achieved UHC

Source: OECD Health Statistics, 2015

### 4.2 Many emerging economies have rapidly ageing populations, making UHC a pressing goal

28. Rapidly ageing populations in many emerging economies makes UHC a particularly pressing goal. By 2060, 1.8 billion people will be 65 years and over. For example, in China and Viet Nam, countries close to achieving UHC, the population share aged 65 and over is projected to reach over 20% in 2050 (Figure 11). Such figures are higher than the OECD average today, and close to projections for the OECD average in 2050.

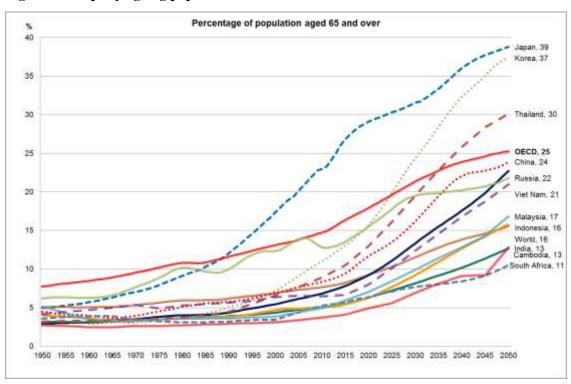


Figure 11. Rapidly ageing populations – forecasts in selected countries

Source: OECD Historical Population Data and Projections Database, 2016

29. Indeed, the speed of ageing has recently accelerated in many emerging economies in Asia and elsewhere, and this is very likely to increase further over the coming decades (Figure 12). For example, while on average OECD countries took 63 years to double the share of the population aged over 65, BRIICS countries will take only about 20 years, with the global average being 42 years (Lutz, et al., 2008). This also means that fewer and fewer working-age people will be able to support elderly populations. Indeed, in 1950, across the world 12 working age people supported one elderly person. This decreased to 8 working age persons per elderly person in 2013, and by 2060, there will be only four working age persons for every elderly person.

Figure 12. Rapidly ageing populations – years for the share of population 65 years and over to double from 8% to 16%, selected countries



Source: OECD Historical Population Data and Projections Database, 2016

30. Countries that are in the process of moving towards UHC are under great pressure to improve health services capacity and respond to the changing needs from ageing populations. Age is strongly associated with demand for health and long-term care services. An OECD review suggests that the ageing of the population can be expected to lead to increasing numbers of people at older ages living with severe disability (Lafortune, et al., 2007). An analysis of per capita health spending (relative to per capita national income<sup>4</sup>) across each age group shows that the very elderly, namely those aged 85 years and over, consume the highest proportion of average per capita health spending (Figure 13).

Figure 13. Per capita health spending by age group as a share of GDP per capita

Source: "Health expenditure and financing: Health expenditure indicators", OECD Health Statistics (database).

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Per capita spending is shown relative to the average GDP per capita for each country to remove the actual differences in the level of spending between countries.

### 5. Universal health coverage needs to be achieved with the right policies

- 31. Achieving a sustainable UHC requires action in three broad policy areas. First, countries should prioritise adequate financial coverage for cost-effective services, across the whole population. This requires critically assessing which health services provide value, and which do not. Second, countries need to build in financial sustainability from the start, having the right tools to diagnose the extent of the challenge, and by diversifying revenues and containing costs. Third, countries should be innovative with service delivery, looking for ways to maximise the efficiency of health spending.
- 32. In each of these three policy areas, taking into account ageing populations is crucial, since ageing will affect the type of health services required, as well as the funds available for healthcare.

# 5.1 Universal population coverage and adequate financial protection are cornerstones of UHC, so critical assessment of which health services to cover is essential

Universality in terms of population coverage is not negotiable

- 33. UHC-inspired health reforms have shown that people in many countries are provided with some kind of health benefit by at least one social protection scheme. However, this does not guarantee universality, since coverage may be unequal across different population groups, exacerbating existing inequalities. That is, the depth and breadth of coverage has not always been even across different schemes, as Wagstaff and others have shown in a variety of low- and middle-income country contexts (Wagstaff, et al., 2016). Universality in terms of population coverage, then, requires that all population groups have affordable access to a sufficient package of health services. This is an essential first step to a true UHC of health services.
- 34. Some countries, such as Japan and Korea, have succeeded in reducing disparities in coverage across population groups. However in other countries, benefit packages for population groups whose coverage is financed directly by government are not as comprehensive as those who pay their contributions. For example, in Thailand, whilst defined benefit packages are more or less the same across the major social health protection schemes, those who are in the Civil Servant Medical Benefit Scheme (CSMBS) have extended drug coverage beyond the national list of essential drugs and high-cost treatment. This may be illustrated by the difference in per capita spending between the two schemes per capita expenditure on CSMBS was five times higher (US\$ 367) than that of the UCS (US\$ 79) in 2010 (Patcharanarumol, et al., 2014).
- 35. Similarly, in Mexico, drug coverage differs by social health protection scheme. For example, between 78% and 89% of Social Security users (employees in private sector and their beneficiaries, covered by IMSS; and public sector employees covered by ISSTE) received their prescriptions free of charge. Whereas for the Seguro Popular (generally covering poorer population groups), only 60% of users receive free prescriptions (OECD, 2016). Furthermore, the Seguro Popular does not cover certain services, such as heart attacks in those aged over 60, strokes, dialysis after renal failure, multiple sclerosis and lung cancer (Aggarwal, Unger-Saldaña, Lewison, & Sullivan, 2015; OECD, 2016).
- 36. The clear policy message from these country experiences, then, is the need to make population coverage truly universal. This will only happen if all population groups are:

- enrolled in the same single social health protection scheme (whether that be a non-contributory system or social health insurance scheme), or
- in more mixed health financing systems, special efforts are made to equalise what is covered across different schemes.

#### Adequate financial protection is also critical

- At the same time, even if countries offer a comprehensive basket of health services to the whole population, UHC will only be fully achieved if all of the population can afford to access these services. That is, financial accessibility is also critical. Prepayment mechanisms are able to offer adequate financial protection from the costs of health services, yet these are underdeveloped in many middle-income countries and some high-income countries too. In particular, *excessive out-of-pocket payments* for health care have implications for equity of access, and ultimately health outcomes. When the share of out-of-pocket (OOP) payments in households is high, it increases the risk of households facing severe financial hardship (also known as catastrophic health expenditures) when using health services. In the Asia-Pacific region, where out-of-pocket payments constitute a major share of total health spending, about 105 million people suffered catastrophic health expenditures<sup>5</sup> and over 70 million were impoverished each year because they had to pay for health care (Xu et al 2007; James et al 2010; WHO 2010). The best way to reduce such catastrophic health spending and impoverishment is for governments to invest more into prepayment schemes.
- 38. Such financial accessibility concerns are particularly pronounced for elderly populations in a number of Asian countries. For example, household surveys in China, Indonesia and Vietnam show that those households with an elderly dependent experience higher catastrophic spending for health care than households without elderly persons (Table 2). In most cases, this can be up to two or three times higher (Palmer, 2014; The World Bank, 2016).

Table 2. Share of households by age groupings with health spending of 25 percent or more of total non-food expenditure

		Household mean age		
Country	Residence	50-69 (%)	70-79 (%)	80 and above (%)
China	Rural	33.41	33.16	40.83
	Urban	29.62	32.78	25.7
Indonesia	Rural	15.86	18.5	17.94
	Urban	12.15	14.79	4.57
Vietnam	Rural	27.99	29.98	35.2
	Urban	26.7	25.57	53.01

Source: The World Bank, 2016

39. In addition, high OOP payments also lead to poorer population groups not utilising health services, or to skip, economize and adhere less to medication therapies (OECD, 2012; Baird, 2016;

Based on the WHO definition of catastrophic health expenditure whereby spending on health exceeds 40% of their income net of subsistence needs (Xu et al 2003).

Doorslaer, 1992; Wagstaff, et al., 1999). Again, such effects can be particularly pronounced for the elderly. For example, in Cambodia, Indonesia, Singapore, Vietnam and Thailand, the majority of people 60 years and over have reported foregoing a physical exam annually due to costs incurred (The World Bank, 2016).

40. In most OECD countries, OOP payments are not excessive, representing less than 30% of total health spending in all member states except Mexico, Korea, Chile and Greece (OECD, 2015). Furthermore, out-of-pocket spending has remained relatively stable in many OECD countries, with the exception of Korea which has gradually reduced its reliance on OOP payments since 1990 (from much higher initial levels). This contrasts with many low and middle-income countries, where OOP payments as a share of total health expenditure are typically higher. For example in Brazil, China, India, Indonesia and the Russian Federation, OOP payments range from 30% to nearly 60% of total health spending.

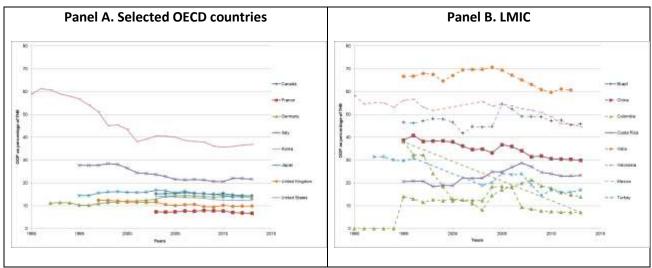


Figure 14. Evolution of reliance on OOP payments over time

Source: OECD Health Statistics 2015.

Critically, in many OECD countries the inactive, pensioner and unemployed people in these countries have not been excluded because of their health risks (Paris et al, 2016). OECD countries such as Japan have policies in place to exempt welfare beneficiaries from out-of-pocket payments, set the upper limit of cost-sharing depending on income, age and case-mix and for disadvantaged population groups including those with specific diseases and conditions (OECD, 2014). Korea's social welfare programme beneficiaries (i.e. MAP beneficiaries) pay a reduced share of co-payments at the point of health care service delivery. Such successful policies extend beyond the OECD. For example, in Thailand, exposure to medical expenditure risk was reduced by policies removing of user fees and limiting co-payment (Limwattananon et al., 2015).

Exclude health services that are cost-ineffective or of questionable clinical benefit

42. Given the importance of ensuring adequate financial protection for the whole population, the logical way of building a sustainable UHC is to critically assess which health services are covered. Importantly, this does not mean excluding needed services: all essential, cost-effective care should be covered without any financial barrier. Rather, it requires excluding cost-ineffective services when more cost-effective options exist, and excluding health services of questionable clinical benefit.

- 43. Without such a critical assessment of health services, there will be a gap between what people are officially entitled to receive and what is financially covered in reality. This is a challenge for middle-income and high-income countries as well as low-income countries. For example, Brazil, Colombia and Mexico guarantee a citizen's right to health care but face difficulties in securing the resources to deliver services, including primary care physicians, specialists, hospital beds, equipment for diagnostic and pathology services (OECD, 2015a; Wagstaff, Cotlear, Eozenou, & Buisman, 2016).
- 44. Indeed, in Mexico there was a reduction of up to 50% in the availability of physical and human resources between 2008 and 2010 (Aggarwal et al., 2015). In Brazil, though every Brazilian is entitled to public healthcare, 25% of the population subscribe to private insurance plans for timely diagnoses and consultations (OECD, 2015a). Stark differences in health spending between those who use only publicly funded health care and those with some form of private coverage can highlight insufficient funding for publicly funded health care. Indeed, per capita health spending for Brazilians with private insurance is more than double that for the rest of the population (OECD, 2015a).
- 45. Other countries, such as Korea and Colombia, also provide broad coverage of services but face challenges in providing adequate financial protection. This is because insurance mechanisms only cover a relatively small share of the cost of different health services and goods. Coverage for pharmaceuticals is a notable concern in these and other countries, which tends to be lower than the coverage for hospital care and doctor consultations (OECD, 2015c). Moreover, such decisions on exactly which services are fully covered is a particular concern in the context of rapidly ageing populations, where existing benefits may not be suitable for conditions and illnesses associated with ageing.
- 46. Today, most OECD countries have national agencies responsible for health technology assessment (HTA) (Paris et al, 2014). In principle, HTA is an important tool to rationally assess which services, medicines and medical equipment should be included in the benefit basket. Yet, the size (national or affiliation to insurance programme), mandate (inform decision making, issue practice guidelines, horizon scanning, accreditation), institutional setting (independent or attached to Health Ministries or insurance agencies), and scope (in technologies to be assessed) greatly vary depending on countries (Paris et al., 2014). A more extensive role of HTAs not just for new treatments but also existing ones is an important policy tool that all countries should develop.
- 47. A careful assessment, then, of which health services offer limited or no value is an important way to ensure finite public funds have the maximum possible impact on overall health coverage. That is, policymakers should prioritise financial protection for cost-effective services, rather than trying to offer every possible health service excluding treatments that are cost-ineffective or with questionable clinical benefit. Box 1 provides some further description of organisational elements of UHC schemes, including different approaches amongst selected OECD and non-OECD countries.

# Box 1. Core organisational principles of UHC

There are some core organisational principles of UHC that all countries share in common. In UHC systems, health coverage is *mandatory* regardless of age, gender, income, health status, employment and occupation. *Risk is pooled across the broader population* and health care is predominantly financed through *pre-payment mechanisms*. Funding of UHC implies cross-subsidisation from the healthy to the sick and from richer to poorer populations. These principles mean that individuals should not face financial hardship because of the costs of healthcare. That is, an individual's access to care should be based on need and not on ability-to-pay.

Whilst all countries' health systems are funded through a mix of financing mechanisms, there are four main categories of basic primary coverage available in OECD countries (Paris et al 2016). OECD countries can be placed into one of these categories for basic coverage, though countries can have alternative mechanisms for coverage of additional services. *Residence-based coverage* reflects automatic enrolment based on residency and is mainly financed from taxes and is available in countries such as Australia, Canada, Denmark, Finland, Iceland, Ireland, Italy, New Zealand, Norway, Portugal, Spain, Sweden, and the United Kingdom. *Contributory health coverage* through social contributions or health insurance premiums covers most other OECD countries. This can be through a single payer or through multiple insurers – as shown in the table below. Selected non-OECD countries show more mixed financing arrangements. For example, Thailand relies on the government paying or subsidising the contributions for about 50% of the population. The Russian Federation established a system of mandatory health insurance, but general taxes are still the predominant mode of finance (Rao, Petrosyan, Araujo, & Mcintyre, 2014). Brazil's Unified Health System (*Sistema Único de Saúde*; SUS) is mainly tax-funded allowing all citizens free healthcare at the primary, secondary and tertiary level (OECD, 2015a).

#### Provision of basic primary coverage (for the average employed adult)

Main source of bas	sic health care coverage	List of countries		
Residence-based health coverage		Australia, Canada, Denmark, Finland, Iceland, Ireland, Italy, New Zealand, Norway, Portugal, Spain, Sweden, United Kingdom		
Contributory health coverage	Single payer	Estonia, Greece(a), Hungary, Korea, Luxembourg, Poland, Slovenia, Turkey		
	Multiple insurers, with automatic affiliation	Austria, Belgium, France, Japan, Mexico (b)		
	Multiple insurers, with choice of insurer	Chile, Czech Republic, Germany, Israel, the Netherlands, Slovak Republic, Switzerland, United States		

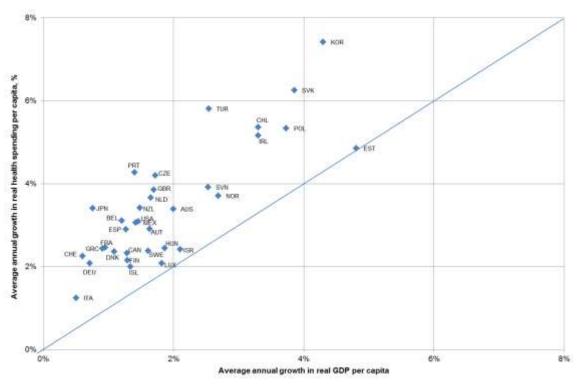
Note: (a) Since 2012; (b) In Mexico, employees are automatically affiliated to a health insurance fund, while other people have to enrol with Seguro Popular to get coverage. Source: OECD Health system characteristics Survey 2012 and Secretariat's estimates and (Paris et al., 2016)

## 5.2 Build in financial sustainability from the start<sup>6</sup>

Health spending has typically outpaced economic growth and is expected to do so in the future

48. For countries striving for UHC, building in financial sustainability from the start is essential. This is because spending on health has typically outpaced economic growth. This is true even for OECD countries with a long history of UHC (Figure x). Key drivers of high spending growth include new health technologies, rising incomes and ageing populations (Chernew and Newhouse 2011). For non-OECD countries, efforts to expand population coverage and scale up health services along with rising consumer expectations will put further upward pressure on health expenditure.

Figure 15. Average annual growth rate of real health spending and GDP per capita, 1990-2012 (or closest years)



Source: OECD (2015). Fiscal sustainability of health systems: bridging health and finance perspectives

49. Looking forward, OECD and other forecasts estimate the pattern of high health spending growth to continue. For example, OECD project that without reforms to contain health-related costs, public spending on health for OECD countries will increase on average from 6% of GDP, 2010, to 9% in 2030, and to 14% in 2060. Increases are also expected for emerging economies, with OECD forecasts for the six BRIICS countries estimating that government spending on health will increase on average from 2.5% of GDP in 2010, to 5% in 2030, and 10% in 2060 without better cost-containment policies (Figure 16).

For a more in-depth discussion of these issues, see OECD (2015). Fiscal sustainability of health systems, from which this section largely draws.

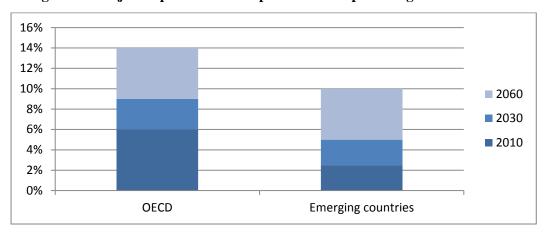


Figure 16. Projected public health expenditure as a percentage of GDP in 2060

Source: De La Maisonneuve, C. and J. Oliveira Martins (2013a), "Public Spending on Health and Long-term Care: A New Set of Projections", OECD Economic Policy Papers No. 06, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k44t7jwwr9x-en.

Have the right tools to diagnose the financial sustainability challenge

- 50. Such spending pressures make it all the more important for policymakers to have the right tools to diagnose the extent of the financial sustainability challenge<sup>7</sup>. Long-term forecasting models that take into account changing demographic and economic factors are important. But knowing shorter-term spending requirements is also crucial, as it allows governments to accurately set up and reshape their budgets, taking into account any budgetary shortfalls. This requires timely and updated information on actual spending. Indeed, some OECD countries have set up 'early warning systems' to indicate if overspending relative to planned budgets is likely to occur. This is a useful tool to allow corrective measures to be implemented in time.
- 52. For example, in France an Alert Committee was set up in 2004, to alert parliament, the government and national health insurance fund about increases in health spending that could exceed national spending targets. Together with corrective measures for over-spending, the Alert Committee has been credited with decreasing the growth rate of health spending in France (OECD 2015e). Note finally that spending reviews can provide a useful compliment to up-to-date data on spending, by a more thorough analysis of where potential cost-savings could be found, or how funds could be feasibly reallocated.

Diversify the revenue base for health spending, taking into account ageing populations

53. The experience of ageing in OECD countries suggests that a move towards broader-based revenue collection models for health is important. This is because population ageing will reduce the revenues generated from certain types of taxes, notably payroll taxes, making it more difficult for countries to maintain or increase government spending on health. Such revenue diversification is particularly needed for countries with health insurance systems.

See OECD (2015) for a more in-depth analysis of these tools.

54. A number of OECD countries have recently instigated reforms to diversity revenues. These provide important lessons for middle-income countries approaching UHC. For example, France has shifted the financing mechanism from a near 100 percent wage contribution in 1968 to 50% in 2013 by introducing a social protection tax (Contribution Sociale Généralisée) drawn from different types of revenues. In Japan, anticipating the need to broaden a revenue source for social security expenses in the light of a hyper-ageing society, the country raised a tax rate from 5% to 8% in April 2014 as the first part of a two-step consumption tax increase (OECD, 2015b). The figure below shows where selected OECD countries are in terms of diversifying revenues for health.

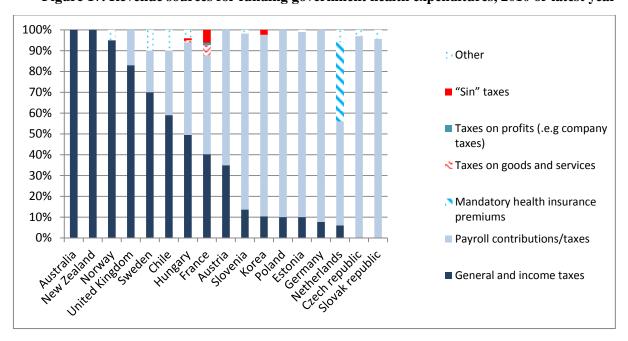


Figure 17. Revenue sources for funding government health expenditures, 2010 or latest year

Source: OECD Survey of Budget Officials on Budgeting Practices for Health, 2013.

Containing pharmaceutical spending growth warrants particular attention

- 55. Across OECD countries, pharmaceuticals account for a significant share of overall health care expenditures. On average, when hospital use is included, one out of every five health dollars goes on purchasing pharmaceuticals (Belloni, Morgan, & Paris, 2016). The number of prescriptions per person has increased over recent decades as a result of an increasing number of drugs entering the market and changes in the duration and patters of prescriptions (Fink & Byrns, 2004; Fowells, 2014). Older people, in particular, may take more than nine medications a day due to multiple chronic conditions and disabilities (OECD, 2013). Such spending is also important from an access perspective, since much of the spending on pharmaceuticals is direct out-of-pocket payments by households.
- 56. Containing pharmaceutical spending is therefore particularly important. Fuller exploitation of off-patent markets for generics is one clear way of doing so and in most OECD countries uptake of generics has increased in recent years. Policies to promote the use of generics include early-entry legislation allowing the generic producers to complete the regulatory requirements prior to the patent expiry of the originator; the prescription of medication using the International Non-proprietary Name

(INN); and mandating physicians and pharmacists to prescribe and substitute the medicine prescribed by the cheapest generic (OECD, 2015c). Improved procurement procedures can also garner important cost savings, by reducing the price paid for pharmaceuticals. For example, the reduction of ex-factory pharmaceutical prices has been implemented in at least one third of OECD countries since 2008.

#### 5.3 Be innovative with service delivery, moving away from cure-centred models

51. Given such financial sustainability concerns, particularly for countries striving towards UHC, maximising the efficiency of health spending is critical. This section sets out some important and innovative ways in which countries can move away from cure-centred models to deliver integrated, patient-centred, data-driven care.

Invest early on in health promotion and disease prevention

- 52. A first and fundamental way of achieving a sustainable UHC is to invest more in health promotion and disease prevention. Such investments in public health can improve health outcomes at relatively low cost. However, these public health activities are often sporadic, and indeed was one of the main areas of government spending cut in OECD countries during the economic crisis (OECD 2015e). Such investments are particularly pertinent for countries with ageing populations, to prevent or minimise the impact of more complex co-morbidities that typically emerge later in life.
- Tackling specific behavioural risk factors, such as tobacco smoking, harmful alcohol use, physical activity and unhealthy diets, are challenging but worthwhile investments, as they are often more cost-effective than waiting to treat poor health associated with these behaviours. Similarly, there are strong economic cases for mental health promotion and disorder activities, and policies related to the environment and road safety (McDaid et al 2015).

Shift services from hospitals to primary care and the community

- 54. Spending on inpatient care accounts for on average 28% in OECD countries, with a range of 21% to 52% of current health spending. The share is larger in many low- and middle-income countries. Hospitals are a crucial component of every country's health system, providing specialised care that cannot be delivered in primary care settings. But this specialised nature makes hospitals expensive to operate. Further, and importantly, changing patterns of disease mean that more and more illnesses can be more effectively and cost-effectively treated in primary care settings. Such a shift of services away from hospitals is, then, an important way of achieving a sustainable UHC.
- 55. Key to this shift is a strengthened primary care system. Promising policies adopted in some OECD countries include larger primary care facilities intermediate care facilities that offer services 7-days a week, 24 hours a day. These have become popular and successful in Australia, Ireland, Italy, Norway and the United States (Berchet 2015).
- A number of policy measures have been implemented to reduce hospital overutilization in recent decades. These measures include reducing unwarranted use of emergency services by better triaging mechanisms in hospitals as well as strengthened primary care; reducing delays in hospital discharges by better care coordination; and developing financial incentive mechanisms that discourage over-provision of

hospital services. Better health promotion and disease prevention activities, including patient self-management, are also crucial.

Revisit how health care professionals are used

- 57. The key policy recommendation here is to extend the scope of practice for non-physicians. Indeed, some countries are re-examining the traditional functions of health professionals. For example, about half of OECD member countries expanded the scope of practice for non-physicians between 2007 and 2012. In particular, many countries have taken steps to introduce or expand the roles of non-physician providers, such as nurse practitioners (NPs) or pharmacists. In the United States, Canada and the Netherlands student intakes in advanced education programmes for NPs are increasing the supply of these "mid-level" providers (OECD 2016b).
- 58. Such changes to the staff mix within and beyond hospitals can produce cost-savings with no adverse effects on quality of care. However, it should be noted that such policies can take time to implement effectively. In particular, the introduction or expansion of such non-physician roles often needs to overcome the initial opposition from medical professionals, and may depend in part on the future supply of physicians. It also requires legislative and regulatory support.

Make better use of big data and information systems<sup>8</sup>

- 59. Health systems generate mountains of data. Digitalisation of everyday life means that data relevant to health are now also produced directly by people through social media, web browsing and interaction with digital devices. Harnessing these vast, unstructured and fast-flowing 'Big Data' presents genuine opportunities to enhance care quality and value (OECD 2015d).
- 60. The first of these concerns clinical practice improvement, and includes better personalisation and continuity. Information derived from health data enables more accurate, timely and co-ordinated decision making across all settings. Care can thus be delivered more effectively and efficiently. Better use of data can also help monitor performance, and drive greater transparency, accountability and continuous quality improvement. It can inform better decisions about how to allocate resources and set priorities among competing demands. Data enhances our knowledge and surveillance of disease. Big Data analysis can help predict changing needs and help model new preventive service configurations, and generate valuable information about managing chronic disease. It also enables faster detection and response to public health emergency.
- 61. Yet many things must change to enable health systems get more out of their data. Data are still seen as a by-product and not a valuable resource, particularly in terms of secondary uses such as research and surveillance. Healthcare has an inherently conservative culture, which has constrained approach towards more open use of data. Leadership is needed, and must target all stakeholders patients, clinicians, managers and the general public. Investment in the necessary processes, tools and infrastructure is needed to realise benefits and manage the risks of processing, combining, cleaning, managing and analysing health

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For an in-depth analysis of how to best use big data, see OECD (2015). Data-driven Innovation, Big Data for Growth and Well-being, from which this text is largely drawn.

data. Public trust in the institutions and processes that manage personal health data must be secured, and decision-making around personal health data must be transparent and consultative, since there are genuine privacy and security risks involved, and breaches can have serious consequences on individuals'. These risks must be seen in the context of the social benefits and the harm from not using data, and must be managed, for example using best-practice de-identification protocols.

#### 6. Conclusions

- 62. Achieving effective and equitable UHC has a strong potential to improve and extend people's lives, reduce inequality and potentially lead to economic growth. There is a positive association between UHC and health outcomes. Failing to do may lead to deteriorating population health outcomes.
- Achieving UHC is within reach for middle-income countries. Several OECD countries attained UHC when they had levels of income comparable to those of several middle income countries today. A period of economic growth helps generating political support and creating the fiscal conditions for expanding health coverage to the entire population: a 1% increase in GDP per capita was associated with a 5.9% increase in the probability of adopting UHC. However, many low- and middle-income countries continue to rely heavily on private spending and non-pooled health funds. The path to achieve UHC is challenged by the size of the informal labour market which remains large in low- and middle income countries. Policies to transform out-of-pocket spending into pre-paid and pooled funding within formal coverage system are required.
- A number of middle income countries have demographic structures comparable to that of OECD countries when they achieved UHC. Yet, in the future, these economies are going to age much faster than OECD countries. This will put pressure on governments to secure adequate levels of services, and adapt those to the changing needs of populations with chronic conditions.
- 65. Achieving UHC requires the right policies. A focus on providing good coverage for a well-defined basket of benefits is preferable to shallow coverage for any service with high patient cost-sharing. Financial sustainability needs to be built into the system from the start, including by exploring options to broaden revenue sources and prioritise the appropriate use of resources. Reforms in delivery systems should prioritise investment in non-hospital services, delivering stronger, high-quality primary and community care services, as well as public health programmes.

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# Annex. Country case studies provide useful lessons on how to achieve and sustain universal health coverage

66. Improved access to health services through UHC has helped reduce the level of out-of-pocket spending and improve life expectancy of populations over the years. The following highlights examples of some of the achievements and remaining challenges in selected countries.

#### Japan

UHC contributed to improved health outcomes

At 83 years, Japan enjoyed the highest level of life expectancy in the world in 2013. Life expectancy was already one of the longest in the 1980's and Japan has continued to maintain this position since then. Mortality rates for communicable diseases in children and young adults started to decline and life expectancy at birth increased in the 1950's and early 1960's when the government scaled up population health interventions (Ikeda et al., 2011). Other health outcomes are also among the best in the OECD. For example, five year relative survival estimates after a diagnosis of breast, cervical or colorectal cancer are all high and 30-day case fatality after an ischaemic stroke is the lowest in the OECD (OECD, 2015c). Population-wide public health interventions, accessible primary care services, socio-economic determinants such as hygiene, diets, culture, education, economic development have been considered as some of the key contributing factors to this success (Ikeda et al., 2011). Currently, cancer, heart disease, and cerebrovascular disease have become the three leading causes of death in Japan, accounting for more than 50% of the risk that a person at age zero will die from in the course of their lifetime.

#### Success factors to achieve UHC

68. Universal health coverage was achieved in Japan in 1961. The employed and their dependents are covered by an employment-based insurance scheme, first legislated for manual workers in 1922 and gradually expanded to other salaried workers and their dependents. Premiums are deducted from payrolls as with the employer contributing at least half (55% on average). The self-employed and the retired population below age 75 are covered by a municipality-based insurance scheme (Citizens' Health Insurance; CHI), which was started for farmers in the 1930's. Premiums, paid to municipalities, are roughly based half on income and half on a flat amount per household and the number enrolled in each household. Those above 75 and those aged 65-74 with a certain disability level are enrolled in Late Elders' Health Insurance which is covered by general tax (50%), transfers from other plans (40%), and premiums from the beneficiaries (10%). For those whose incomes are below a specified threshold, they are eligible to apply for a social assistance programme where medical services are available at no charge at the point of delivery (Paris, Hewlett, Auraaen, Alexa, & Simon, 2016). The government subsidises those working in small to medium companies and plans that have a high proportion of those on low income and elders. Although there are 3300 insurance plans, the benefits and provider payments are all standardised (Ikegami, n.d.; Ikegami et al., 2011; Reich et al., 2015).

*UHC* in an ageing society – reforms to respond to population ageing

69. Japan is facing a rapidly ageing population with the share of people 65 years old and over accounting for more than 23% of the total population in 2010 and expected to increase to 39% by 2050.

This will obviously affect the changes in the structure of workforce. For example, the share of irregular workers whose employers do not need to enrol in the employment-based insurance if they work less than 30 hours/week. The transfers to pay for care of the elderly comprises 45% of premiums in employment-based health insurance.

70. Although an impressive level of health outcomes was achieved with relatively low health spending, spending has grown faster than OECD countries in recent years. Moreover, because each municipality can design its own method of premium setting, insurance premiums rates for the employment-based insurance differ by insurers and regionally-managed schemes also have different premiums across regions. Due to numerous plans across the country and incremental adjustment mechanisms, the contribution rates can differ by up to threefold. Disparities are also widening in the premium rates collected by different risk pools and plans and there is resistance to raise premium rates of the wealthy population.

#### Germany

UHC contributed to improved health outcomes

71. Germany's social health insurance (SHI) along with socioeconomic factors has contributed an improvement in population health outcomes. Life expectancy at birth reached 81 years old in 2013, an increase of more than 10 years since 1960. Since 1990, the rate of mortality caused by ischemic heart disease (IHD) has declined by nearly 50% and the rate of cerebrovascular disease declined by 63%. Infant mortality is one of the lowest in the OECD at 2.8 deaths per 1 000 births.

Success factors to achieve UHC

- The German's social security system is founded on the principle of social solidarity. The health care system (SHI), established by Otto von Bismarck in 1883, is historically the first statutory health insurance. Since its establishment, compulsory insurance gradually expanded to cover the population by type of industry and included the last professional groups in 1981 (Carrin & James, 2005). The country attained nearly 100% of population coverage in 1995 with per capita income of USD PPP 33 000 in constant terms. After 127 years, in 2009, health insurance became compulsory for all citizens and permanent residents of Germany. By then, per capita income had grown to USD PPP 39 000 in constant terms. Residents whose incomes are below a certain threshold need to be affiliated to the statutory health insurance. For those whose incomes are above such a threshold (as well as many civil servants), they can choose to opt-out and purchase private health insurance 11% of the population.
- 73. Germany relies on a mix of compulsory contributions and general taxation to finance SHI. The revenue source is mainly from compulsory contributions levied on gross wages with an upper limit and partially from government subsidies. The contribution rate is uniformly set at 14.6% of gross wage with the supplementary income-dependent contribution rate determined by each sickness fund (Blumel & Busse, 2016). For low-income, long-term unemployed people, municipalities pay a flat health insurance contribution (Paris et al., 2016).

*UHC* in an ageing society – reforms to respond to population ageing

- 74. The population age structure in Germany has changed significantly since the establishment of SHI. The share of the population aged 65 years and over was 11% in 1960, increasing to 15% and to 21% in 2014. By 2050, the share is expected to increase to 33% of the total population. While population health has notably improved, new areas of concern due to population ageing and epidemiological transition are emerging. For example, the rate of incidence of breast cancer is 92 per 100 000 women in 2012, one of the OECD countries with a higher rate, alcohol consumption has risen since 2000, and the rate of obesity increased by 4 percentage point between 2000 and 2013 making one out of every four people aged 15 years and over obese. Prevention and health promotion has been intermittently introduced to public health services as one of the key factors of health care delivery system in Germany (Busse et al., 2014).
- 75. The country has gone through more than 35 years of health reforms to maintain financial sustainability in the era of population ageing. They have responded to a decline in the number of persons liable for compulsory insurance and to the ageing population. While financing of the system is based on employment, premiums are also mandatory for pensioners and general tax is also used to finance partially ensuring a diversification of revenue sources. Sickness funds can also ask insurers supplemental charges in case of deficits. A social protection mechanism is provided for those who are unemployed, poor and students. Co-payments were exempted for specific population groups such as the poor, those with substantial health needs or children. The share of population exempted from co-payments has increased three-fold between 1993 and 2000. This has led to a new regulation based on the level of gross household income.
- A selection bias in enrolment may have a negative impact on the financial sustainability of SHI. Healthy individuals with high incomes are more likely to enrol in private health insurance (Mielck & Helmert, 2006b). As PHI does not cross-subsidise financial costs with SHI, the premiums is lower for PHI with better benefits (Busse et al., 2014).
- 77. Germany introduced the system of mandatory long-term care insurance as a fifth pillar of the country's social security system in 1995. Long-term care insurance is usually provided by the same insurer as health insurance. The contribution rate of 2.05 percent of gross salary is shared between employers and employees. For people without children, they are liable to pay an additional 0.25 percent. Anyone with a physical or mental illness or disability (who has contributed for at least two years) can apply to receive benefits.

#### Korea

UHC contributed to improve health outcomes

78. During the period of expanding health care coverage, life expectancy at birth in Korea has increased rapidly and since the achievement of UHC, health outcomes continue to improve, although at a slower pace than before (although still faster than many OECD countries).

#### Success factors to achieve UHC

- After starting to expand coverage with the amendment of the Medical Insurance Act in 1977, Korea took only 12 years to establish a universal National Health Insurance (NHI), providing basic protection against the risk of illness for the entire population and offering a large freedom of choice of providers to patients. The country systematically expanded coverage from large to medium and small-size companies, and from the employed to the self-employed individuals (OECD, 2003). Korea uses information on assets to adjust underreported income to define the contribution rate of the self-employed (Mathauer et al., 2009). The Medical Aid Program (MAP) in Korea is fully financed by government for those who are beneficiaries of a social welfare programme and unable to pay contributions to the national social health insurance (Mathauer et al., 2009). The public sector is responsible for providing services to MPA beneficiaries (Paris et al., 2016).
- 80. Korea has succeeded in reducing disparities in benefit coverage although the width and depth can be improved. The expansion of coverage received little political and civil resistance partly because of low pre-payments and equity and utilisation gaps between the insured and uninsured partly because of a high out-of-pocket spending as a share of total health spending at 73% in 1980, and a significant utilisation rate of health services between the insured and uninsured.
- 81. In 2012, the contribution rate for the mandatory National Health Insurance (NHI) scheme was only 5.89% of formal sector employees' salaries: half of this was paid by employers. There is a ceiling on the amount employees have to pay under this system. NHI contributions from the informal sector are calculated on the basis of the capacity to pay, which is assessed using information such as income and property ownership. In the absence of income information, the level of contribution is often set at a flat rate or based on asset indicators on rare occasions (Averill & Mariott, 2013b; Mathauer et al., 2009).
- 82. Social protection is provided for the low-income individuals. However, they still need to pay copayment at the point of service delivery. Korea ask the standardised rate of 30% of costs as cost-sharing for outpatient pharmaceuticals for those who are not entitled to co-payment exemptions.

*UHC* in ageing society – reforms to respond to population ageing

- 83. Population ageing is particularly a concern in Korea as population are rapidly ageing the share of 65 years old and over was only and 5% in Korea in 1989 and increased to 11% in 2010 and is expected to reach 37% by 2050.
- A key challenge is to improve health benefits while addressing a relatively high-out-of-pocket payment mechanism and responding to the needs of the population in the context of population ageing. Furthermore, the existing benefits may not be suitable for conditions and illnesses associated with ageing. Although the rate of private spending has decreased over the last decade, the out-of-pocket still accounts about 40% of health spending in Korea (OECD, 2015).
- 85. Moreover, financial sustainability is a concern as contribution rates and government subsidies have been growing at a slower rate than the growth of health expenditure while the rate of health expenditure is growing rapidly due to the expansion of benefit package, increased number of claims per person, the increasing average value of claims per person and the increasing total population (Mathauer, et

- al., 2009). In Korea, more than 70% of revenues come from payroll contributions. The government subsidises NHI through the earmarked tax. In 2010, about 54% of the tobacco tax earmarked for the health sector accounted for 3.2% of the NHI fund (Kim and Yeo 2014). Korea's informal sector is relatively large with surveys in 2006 and 2007 revealing that two-thirds of households failed to pay income tax and needs to further strengthen their income registration system for the self-employed (Mathauer et al., 2009).
- 86. Ceilings on global or sector expenditures have had some success in containing health costs as Korea utilises the Fee-for-Service with global budgets, partial DRGs and unified fee schedule which helped to contain spending growth. Policies have been implemented to contain the growth of health spending. For example, in pharmaceuticals, NHI has a positive list of drugs for the benefit package and list is updated based on cost-effectiveness and negotiated prices using reference prices by the Health Insurance Review and Assessment Service.

#### **Turkey**

UHC contributed to improved health outcomes

In 2013, life expectancy at birth in Turkey was 77 years, 5.5 years less than the OECD average of 80.2 years, but the gap is narrowing. The life expectancy in Turkey increased by 3.5 years between 2000 and 2012, half-a-year more rapidly than the average across OECD countries. The implementation of the Health Transformation Programme brought a significant increase in supply and access to primary care services. This has led to better outcomes, especially around maternal and child health and infectious diseases. Turkey has achieved significant progress in reducing tobacco consumption over the past decade, with the proportion of daily smokers among adults going down from 32% in 2003 to 24% in 2012. Still, smoking rates among adults in Turkey remain higher than the OECD average of 20.7%. As in nearly all other OECD countries, obesity rates in Turkey have increased over time. In 2011, more than one-in-five adults (22%) in Turkey was defined as being obese (based on actual measures of their height and weight). This rate remains lower than that in the United States (35% in 2012) and Mexico (32% also in 2012), but the growing prevalence of obesity foreshadows increases in the occurrence of health problems (such as diabetes and cardiovascular diseases), and higher health care costs in the future.

# Success factors to achieve UHC

88. Turkey achieved UHC in 2003 with the implementation of the Health Transformation Programme (HTP). In a relatively short period, it has essentially achieved universal health insurance (UHI) coverage of the population and provides high levels of financial protection and equity through a combination of a progressive mechanism for out-of-pocket payment and no- or limited co-payments for essential health services. With the overall health spending at 5.1% in 2014, the progress on population health outcomes has been achieved with reasonable resources (Aran, Meltem; Ozceli, 2014). The Programme separated the provider (Ministry of Health and private providers) and purchaser (the Social Security Institution) which became the single-purchaser of health care services. It also consolidated five social security funds into a unified social security system, the General Health Insurance Scheme (GHIS - Genel Sagʻlik Sigortası), covering the majority of the population for services provided by a mix of public and private sector facilities. It is funded through contributions from employers and employees, and by government contributions, which finance coverage for low-income people (former Green Card holders)

and civil servants. Individuals are classified into one of four income groups and the contribution is calculated annually based on income (Aran & Ozceli, 2014). (Sözmen & Ünal, 2016).

- 89. Turkey has become an upper middle-income country that has seen rapid economic growth and development over the last decade. The economy grew by an average of almost 5.5 percent over the period 2002–11, compared with the pre-2001 average of around 4 percent. Per capita income tripled over the period to reach \$10,444 in 2011. The government prioritised the health sector although not earmarked the budget to health and enabled the expansion of coverage. Although growing faster than the OECD average, the share of total health spending in Turkey is the lowest among OECD countries accounted for 5.1% of GDP in 2013 and well below the OECD average of 9%. Hospital capacity was expanded from fewer than 2.0 acute care beds per 1000 population in 2000 to 2.6 per 1000 in 2011. The number of doctors per capita rose from 1 doctor per 1000 population in 2000 to 1.8 in 2012, although still the lowest among OECD countries. Yet, due to a fast spending growth, expenditure caps in line with gross domestic product have been introduced for ministry, private and university hospitals. In 2007, a fixed global budget for all ministry hospitals was implemented (The World Bank, 2016).
- 90. However, despite the coverage, income-related inequality and geographical variation has contributed to a widening of the gap of health outcomes between the rich and the poor and the urban and the rural. Furthermore, Turkey is anticipating a shift of the disease burden towards the chronic morbidities which ought to renew the focus of primary care and improve the depth and width of health coverage (OECD, 2014).

#### Mexico

Recent progress made for population coverage but substantial challenges hinder progress in the reform

- Mexico has undergone significant progress towards broader population coverage in recent years. The introduction of a new voluntary health insurance scheme, Seguro Popular (SP), in 2004 extended a package of essential health interventions to over 50 million Mexicans, 47.7% of the population. The SP extends its coverage to the unemployed, rural workers and workers in the informal sector mainly the poor and uninsured. 5.6% of the population is covered under Social Security (Institute for Social Security Service for State Employees; ISSTE subsystem), which applies to employees in the formal sector and their dependents. Formal sector employees and their families, representing 30% of the population, are covered through the Mexican Institute for Social Security (IMSS). Self-employed people can be insured under the Seguro de Salud para la Familia scheme as part of IMSS. In 2012, 7% of the population remained uninsured, and a small proportion (3%) of the population are individually privately insured. The uninsured population can still have access to health care services at below full-cost prices, publicly financed by the Ministry of Health (Servan-Mori, Avila-Burgos, Nigenda, & Lozano, 2016).
- 92. Mexico spent 6.2% of GDP (US\$ 1048 per capita) on health in 2013. Public spending on health increased from 2.4% to 3.2% as a share of GDP between 2003 and 2013 and the rate of impoverishment due to health spending decreased from 3.3% to 0.8%. The reform to expand health coverage to the uninsured population, whether the increase has been translated into tangible health system improvements and outcome improvements is doubtful: the statistics point out that the gap in life expectancy between Mexico and other OECD countries has actually widened from about four years to almost six years over the past decade; the share of the population being obese increased from 62% to 71% of the adult population

between 2000 and 2012; nearly three in ten patients die within a month of a heart-attack and the rate is worsening; the share of spending on administration, 10% of the public spending on health, is the highest in the OECD; and out-of-pocket spending accounts for around 45% of total spending (OECD, 2016).

- 93. There are significant differences in per capita spending between schemes and the depth of coverage varies. Those in *Seguro Popular* do not have the same coverage as the others and are not entitled for care on, for example, heart attacks in those aged over 60, strokes, dialysis after renal failure, multiple sclerosis and lung cancer.
- 94. The healthcare system is highly fragmented with several vertically-integrated social insurer/providers, each covering different parts of the population. It is provided through a cluster of disconnected sub-systems which offers different levels of care, at different prices, with different outcomes. Individuals effectively have neither choice of insurance plan nor of provider network, since affiliation is determined by their job. There is no continuity of care once the affiliation is disrupted. Without a further reform to address this, Mexico runs the risk of maintaining a fragmented health system with marked inequalities in access and quality, further entrenching socioeconomic disadvantage (OECD, 2016).
- 95. Mexico is experiencing an ageing population where age-related health issues are emerging. For example, the number of new cancer cases is expected to increase by nearly 75% by 2030 with 60% of cases among those 65 years old and over. While there are more elderly who are insured in Seguro Popular than IMSS and ISSSTE, the level of benefit coverage for likely conditions of the elderly people for Seguro Popular than the other insurance schemes.

### Colombia

- 96. The Statutory Law established a fundamental right to health in 2013. Health insurance becomes a compulsory and coverage increased to 96% of the population in 2014, a rapid increase from 24% in 1993, and access to health care has substantially improved. Out-of-pocket spending decreased from 52% of the total expenditure on health in 1993 to 15% in 2006.
- 97. Prior to the reform in 1993, inequity in access was evident health coverage only extended to 24% of the population and the poor had little access: 47% of the richest quintile had health system coverage while only 4.2% in the poorest quintile had financial protection for health. In 1993, Law 100 brought about far-reaching reforms by creating the *Sistema General de Seguridad Social en Salud* (SGSSS, or General System of Social Security in Health). Individuals affiliate with the SGSSS through three regimes, namely the contributory regime (CR) for individuals in formal employment, the subsidised regime (SR) for individuals not in formal employment and the Special Benefit Regime for the armed forces, teachers and a state-owned petroleum company. Risk-equalisation and cross-subsidy exists both within and across the CR and SR, supporting employer 8.5% to a fund called the *Fondo de Seguridad y Garantía* (FOSYGA). Private insurance accounts for approximately one million individuals and has not increased significantly in the last five years (OECD, 2016).
- 98. It is a contributory and a subsidised scheme, known as Plan Obligatorio de Salud (POS), is financed by a payroll tax on formal-sector workers and a tax on employers. Low-income or informal-sector workers are covered by the Plan Obligatorio de Salud Subsidiado (POSS) financed by a government subsidy. Compulsory contributions are paid by employers, employees, the self-employed, and pensioners

and the amount is set according to their ability to pay. A single service package is defined by the Mandatory Health Plan (POS).

- 99. Colombia emphasised prevention and early detection of certain conditions such as cervical and breast cancer, or problems in childhood development, through a programme known as the Protección Especifica y Detección Temprana (PEDT) and the Política de Atención Integral en Salud (PAIS, or integrated health care policy), a new model of care that aims to better integrate primary care, public health activities and wider intersectoral action at community level (OECD, 2016).
- 100. Although life expectancy has been increasing, expanded health coverage and improved access have not been translated into faster progress and the gap in life expectancy has not narrowed between Columbia and OECD countries over the past two decades. Colombia's ageing from 5% of the total population aged 65 years and over is expected to increase to 9% in 2025 and 16% in 2050.

#### **Thailand**

- 101. The Universal Coverage Scheme (UCS) was launched in 2001. The UCS is financed by general tax revenues. The scheme expanded quickly and within a year expanded to cover 75% of the population which include the 30% of the previously uninsured population. The health coverage was expended to the entire population in 2002. The policy was implemented right in the aftermath of the 1997 Asian financial crisis when gross national income was only US\$1900 per capita compared to the pre-crisis figure, US\$2700 per capita in 1990 and current figure, US\$5780 per capita in 2014. There are two other major schemes in the country- Civil Servant Medical Benefit Scheme (CSMBS) and Social Security Scheme (SSS). CSMBS started out in the 1960's providing coverage to government employees, dependents and retirees - 7% of the population - financed by tax. SSS was introduced in the 1990's for private sector employees based on payroll contributions. The case of UCS has improved health equity in Thailand by providing the poor with access to health services free at the point of delivery (i.e. the number of outpatient visit rose from 2.45 in 2003 and 3.22 in 2010), government budget subsidies are pro-poor, and there has been a marked reduction in household impoverishment resulting from health payments (i.e. medical payment resulted in falling below the national poverty line decreased from 2.71% in 2000 to 0.49% in 2009).
- 102. The success also lies with the governance whereby the National Health Security Office (NHSO) is the largest purchaser in Thailand, purchasing services for UCS such that the provider is split from purchasers. The country applies a mix of capitation payment for outpatient care and diagnostic-related groups for inpatient care with a global budget for inpatient care. In conjunction to the use of guidelines established in 2010, NHSO requests two public agencies responsible for health technology and evaluation of effectiveness the Health Intervention and Technology Assessment Program and the International Health Policy Program to carry out evaluations for inclusion or exclusion in the benefit package (The World Bank, 2016). This policy encourages providers to prescribe generic medicines, more prevention and health promotion activities and dispense medical technologies appropriately.
- One concern is the rising cost of care and changing demands for healthcare services in light of an ageing population. The cost per beneficiary increased from B1201.40 in 2002 to B2693.50 in 2011, equivalent to a 70 percent increase in real terms over the period. This is attributed to rising remuneration of health care staff (The World Bank, 2016). The share of expenditure on health (both public and private) is

projected to reach 4.5% of GDP in 2020. Meanwhile, the share of people 65 years and over is projected to increase from nearly 10% in 2013 to 30% in 2050. In 2010, a national policy has been endorsed to provide long-term care at the community level and shift a focus from hospital centric care provision to integrated care services (Evans, et al., 2012).