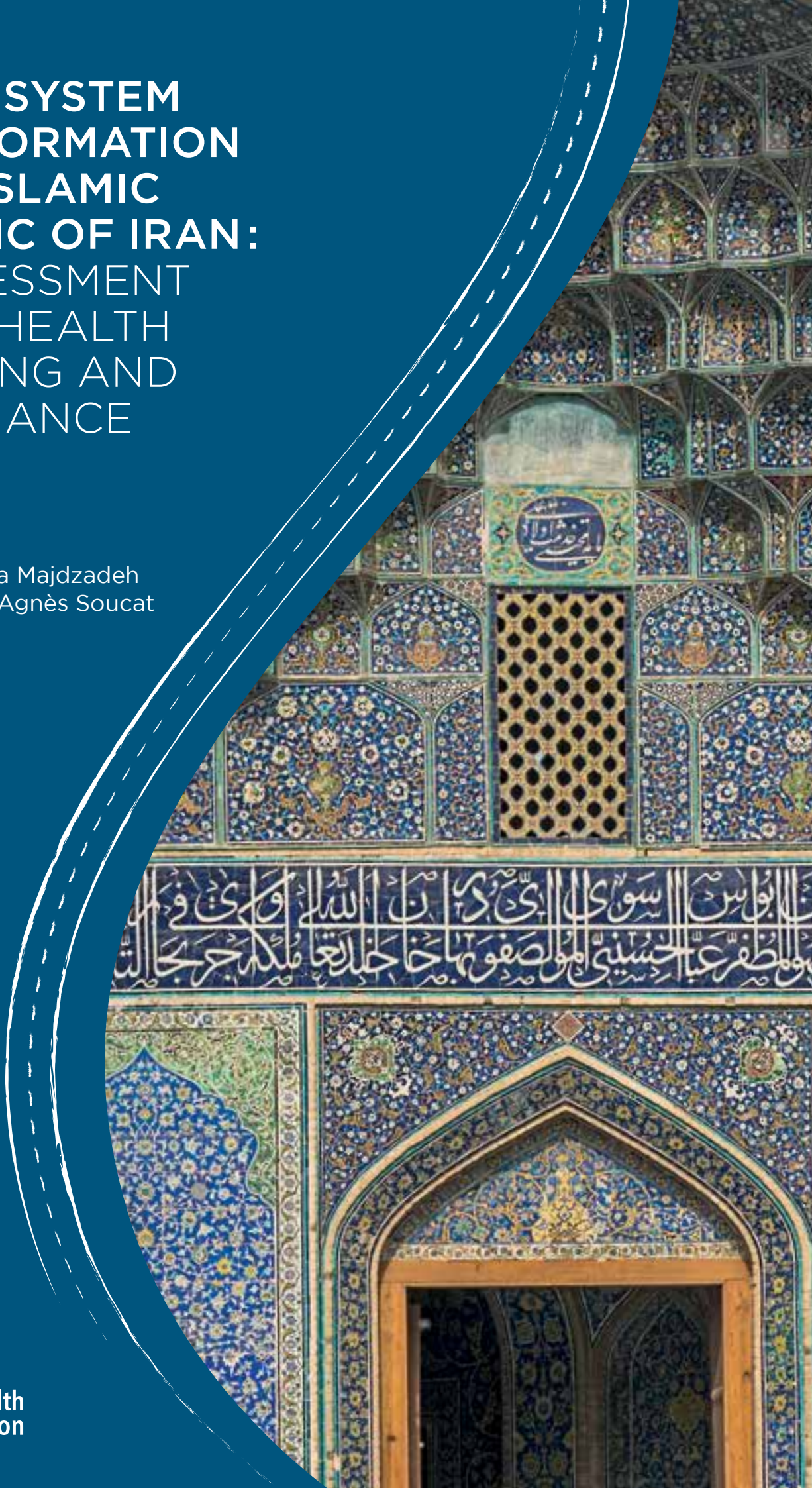
HEALTH SYSTEM TRANSFORMATION IN THE ISLAMIC REPUBLIC OF IRAN: AN ASSESSMENT OF KEY HEALTH FINANCING AND GOVERNANCE ISSUES

Edited by:
Justine Hsu, Reza Majdzadeh
Iraj Harirchi and Agnès Soucat



World Health Organization

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CONTENTS

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EXECUTIVE SUMMARY

FROM PRIMARY HEALTH CARE TO UNIVERSAL HEALTH COVERAGE: THE ROAD TO TRANSFORMATION

The health system of the Islamic Republic of Iran is in transition. The country has long been recognized for its innovative approaches to primary health care. Over the past four decades, the country's pro-poor and community-based orientation has extended access of its population to primary health care services, especially in rural areas. This has contributed significantly to improvements in maternal and child health. In the 21st century, the emerging challenges for the country are increasing urbanization, changing lifestyles and an evolving epidemiological burden. The health sector is developing rapidly with more public resources as well as a growing private sector. The expectations of the population are increasing with demands for more health services, more choice and better quality of care.

The health financing landscape of the Islamic Republic of Iran is evolving. Total current health expenditure has been increasing, representing 8.1% of gross domestic product in 2016. Moreover, since 2010, general government health expenditure has also been steadily increasing, such that its share of total expenditure has risen from 32.4% in 2010 to 54.5% in 2016. Such public investment has reversed earlier trends of rising private expenditure, much of which was out-of-pocket (OOP). While the country's investments in its health system are laudable, there is concern about the stability and sustainability of public financing. The current fiscal environment includes high inflation and limited ability to further expand the fiscal space for health, and the macro-economic outlook remains uncertain in view of the recent re-imposition of sanctions that affect the main sources of revenue for the country.

Health is a declared priority for the country's development, and President Rouhani has committed to ensuring every Iranian citizen has access to health care through his signature reform known as the Health Transformation Plan (HTP). The HTP was launched in 2014, with an additional US$ 3 billion mobilized in the first year of its implementation. Increased public financing in the health system has made possible important achievements, including the extension of insurance coverage, modernization of infrastructure and better compensation of health workers.

The Islamic Republic of Iran has extended health insurance coverage to a nearly universal level, with an estimated 95% of the population covered by a public health insurance scheme in 2017. This achievement is a direct result of a significant investment made in 2014 to the HTP, which covered an additional 6.5 million previously uninsured Iranians in the first year to reach 8 million by 2017. The achievement is also due to having extended coverage to the rural population through an insurance scheme established in 2005. The characteristics of the remaining uninsured population appear to have shifted from the rural poor to the urban poor and the near poor, reflecting both the success of the rural health service programmes and changes in Iranian society with greater urbanization, the emergence of urban poverty and an informal labour market.

Financial protection against catastrophic and impoverishing health expenditures has generally remained stable. During the period 2007–2015, total OOP payments for health remained stable in real terms; where there were slight increases, these were mostly observed in richer households. As service utilization rates increased during the same period, this suggests that the population is receiving more health services for approximately the same level of OOP payments. OOP spending on inpatient services decreased by an average of 40 439 rials per person per year during the period, indicating greater access to such care. Subsidies for medicines introduced in 2011 and 2013 also appear to have stemmed any further increase in payments for such items. Indicators of financial protection have also remained fairly stable. The national incidence rate of catastrophic health expenditures[1] was estimated to be 3.9% in 2015, with the rate stable for the poor and with increases mainly due to spending by the rich during the period 2007–2015. The percentage of the population impoverished[2] due to OOP payments was estimated at 1.4% in 2015, with an average annual percentage point decrease of –0.04 during the period 2007–2015.

Institutional reform will have to keep pace with the momentum of political commitment and increased public financing. Greater capacity to engage in strategic purchasing of health services is needed and would result in significant efficiency gains for the Iranian health system. This is particularly critical as the country's generous benefit package and the recent extension of coverage to near universal levels have raised concern about the sustainability of financing the system. Potential efficiency gains could also be made by greater pooling of resources across health insurance funds to increase their financial leverage. In addition, in view of the growing role of the private sector in financing and delivering health services, greater engagement, coordination and regulation will be important. Finally, development and strengthening of dialogue involving all stakeholders will foster consensus about necessary trade-offs in health investments.

The Islamic Republic of Iran is clearly transitioning from its success in primary health care and holds firm on its long-standing commitment to universal health coverage. A new era of transformation, with the emergence of artificial intelligence and big data and the challenges of curtailing the epidemic of noncommunicable diseases and anticipated population ageing, calls for even deeper transformation of the Iranian health system. The Islamic Republic of Iran is committed to investing in its health system for tomorrow, building modern institutions and initiating transformation of its human resources and infrastructure. In order to do so, the country must, in the short to medium term, adjust to the economic and fiscal shocks brought about by the recent re-imposition of sanctions and, in the long term, adjust to the impending cost pressures of its demographic and epidemiological transitions. Maintaining progress on the road from primary health care to universal health coverage is high on the country's development agenda.

[1] Defined as when OOP payments for health exceed 25% of total household expenditure.
[2] At the international poverty line of 2011 purchasing power parity (PPP) $5.50-a-day.

CHAPTER 1
Financial protection and equity in health spending

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KEY MESSAGES

Financial protection and equity in health spending are high on the political and development agendas of the Islamic Republic of Iran. Both health system objectives have received attention from the highest political office of the President and figure prominently in the country's 5-year National Development Plans.

During the period 2007–2015, total out-of-pocket (OOP) payments for health remained stable in real terms at approximately 2 million rials per person per year. As service utilization rates increased over the same period, this suggests that the population is receiving more health services for approximately the same level of OOP payments.

OOP spending on inpatient services decreased by an average of 40 439 rials per person per year during the period 2007–2015. This reflects prior momentum to meeting one of the key priorities of the 2014 Health Transformation Plan (HTP), which is to improve the affordability of and access to inpatient services in public hospitals.

OOP spending on medicines increased slightly, by 16 198 rials per person per year, during the period 2007–2015. Medicines comprise nearly half of all OOP payments by the poor and a quarter of all OOP payments by the rich. Subsidies for medicines introduced in 2011 and 2013 appear to have stemmed any further increase in OOP payments for such items. Continued attention should be paid to the pricing of medicines and prescription policies and practices.

The rich spend nearly 15 times more OOP than the poor, reflecting their greater willingness-to-pay and capacity-to-pay for health services. It has been suggested that such payments are for services that are not publicly covered, may be medically unnecessary or are accessed in the private sector. Policy measures to transform OOP payments by the rich into pooled prepayments could be considered, together with a proposal for entitlement to a supplemental and more generous benefit package.

OOP payments for health as a share of total household expenditure increased during 2007–2015, driven by a decrease in total overall household spending. This reflects a general decline of household living standards due to economic sanctions and very high inflation rates. Re-imposition of sanctions is a concern, and its effect on household welfare and spending on health should be monitored.

The incidence of catastrophic health expenditures, defined as when OOP payments for health exceed 25% of total household expenditure, was 3.9% in 2015. During 2007–2015, the rate increased slightly, with an average annual percentage point change of 0.1 but remained stable for the poorest.

The incidence of impoverishing health expenditures, defined as when OOP payments for health push a person below a poverty line, has remained low during 2007–2015. At the 2011 purchasing power parity (PPP) $5.50-a-day poverty line, the incidence rate was 1.4% in 2015, with an average annual percentage point decrease of –0.04 during 2007–2015.

Analysis of equity in the distribution of household contributions to the health system suggests that premiums paid to private health insurance and OOP payments paid directly to providers are progressive, with the rich paying proportionally more than the poor. This can be attributed to the generous benefit package such that the poor are protected from paying OOP for needed services. In addition, wealthier people are more likely subscribe to complementary private insurance or pay OOP for perceived better quality in the private sector. Premiums paid to public health insurance funds were either progressive or proportional, and their degree of equity will likely improve given the recent removal of caps on insurance contributions.

As part of the HTP, many policies were implemented in 2014 to reduce OOP payments for health and improve financial protection and equitable financing (e.g. banning informal payments, reducing co-payments). The data used in this analysis pre-date those initiatives. As such, results of this analysis serve as a baseline and as motivation for the Islamic Republic of Iran to ensure that it has placed itself on the right path to improving financial protection and equity in health spending.

INTRODUCTION

Financial protection and equity in health spending are key health system goals of governments worldwide. Financial protection means that people who pay out-of-pocket (OOP) to obtain the health services they need are not exposed to undue financial hardship *(1–5).* It is a key health system objective and also an important dimension of universal health coverage (UHC), an official target for health in the Sustainable Development Goals (SDGs) *(6,7).* Equity is a related health system objective, and a key principle is that health should be financed according to ability-to-pay *(8).* In the Islamic Republic of Iran, the objectives of financial protection and equity in health spending have commanded attention at the highest levels, notably in the office of the President *(9).*

The Islamic Republic of Iran has recently introduced several policy initiatives to improve financial protection and equity in health spending. These initiatives are based on objectives set out in the country's consecutive 5-year National Development Plans (NDPs) covering the period 2005–2021, which include reducing inequality in the distribution of health expenditures, reducing OOP payments to less than 30% of total health spending and reducing the incidence of catastrophic health expenditures to less than 1.0% *(10–12).* To meet these objectives, the Ministry of Health and Medical Education (MoHME) has implemented a number of health financing policy interventions, many of which are part of wider reforms of the Health Transformation Plan (HTP). Key policy initiatives undertaken during the past 25 years include *(13–15):*

- **1994:** Enactment of a Universal Health Insurance Act, resulting in creation of the Medical Services Insurance Organization (now known as the Iran Health Insurance Organization)
- **2005:** Launch of basic health insurance for populations in rural areas, with premiums subsidized by the government
- **2007:** Merger of benefit coverage policies into a unified package of services provided by all public insurers
- **2011:** Subsidization of medicines both directly to manufacturers and, from 2013, indirectly to public health insurance funds in order to increase the affordability of imported essential medicines, especially those for special, incurable and chronic conditions
- **2012:** Merger of various basic health insurance schemes under the newly constituted Iran Health Insurance Organization (previously the Medical Services Insurance Organization)
- **2013:** An increase by more than 70% in real terms of public financing for health, from 109 071 billion rials in 2010 to 186 465 billion rials in 2016
- **2014:** Introduction of legislation to eliminate informal ("under-the-table") payments
- **2014:** Reduction of co-payments for inpatient services in public hospitals from 33% to 10% in urban areas and 5% in rural areas
- **2014:** Elimination or reduction of co-payments for treatment for specific rare and/or chronically disabling diseases or conditions
- **2014:** Provision of free natural childbirth services in public hospitals
- **2014:** Introduction of policies to eliminate referral of patients in public hospitals to purchase medicines, medical supplies and diagnostic services in outpatient facilities, which required OOP payments
- **2014:** Updating of the relative value units of health services to better reflect the cost of services provided, thereby regularizing physicians' payments and stemming the practice of demanding informal payments from patients
- **2014:** Extension of basic health insurance coverage to the remaining uninsured population, with premiums subsidized by the government

It is clear that the Islamic Republic of Iran has taken important initiatives, especially in recent years, to extend insurance coverage and improve financial protection for its population. While these are to be applauded, in order to maintain momentum towards UHC, the country should take stock of what has been achieved to date, highlight the opportunities created by recent efforts and identify emerging challenges. This chapter addresses key questions: To what extent have levels of OOP payments for health been reduced and financial protection improved? To what degree is the system financed equitably?

The overall aim of this chapter is to assess financial protection and equity in health spending in the Islamic Republic of Iran over the period 2007–2015, relying on data obtained from the Household Income and Expenditure Survey (Box 1.1). The specific objectives of the chapter are:

- To analyse how total household OOP spending on health has evolved over time, including breakdowns by type of health service or good and by different equity stratifiers;
- To measure the impact of OOP payments on household living standards in terms of key indicators of financial protection, i.e. catastrophic health expenditures and impoverishing health expenditures;
- To assess equity in terms of the extent to which different sources of household financial contributions to the health system are related to ability-to-pay; and
- To assess the extent to which changes in financial protection correlated with the timing of key policy changes and with household characteristics.

The findings will ultimately be used to inform policy options to maximize system levers that would further improve financial protection and equity for the next phase of health reforms in the Islamic Republic of Iran.

Box 1.1: Household Income and Expenditure Survey

The analysis reported here is based on data from nine rounds of the Household Income and Expenditure Survey (HIES), which is conducted annually by the Statistical Centre of Iran and which collects information on household consumption expenditure on all items, including health. HIES is a nationally representative survey with a three-staged cluster sampling design with sample size ranging from 31 283 to 39 088 households, depending on the survey round. To adjust for the effect of inflation, we baselined expenditures to the year 2011 using annual Consumer Price Indices for all goods with rates specific to rural and urban areas to also account for spatial price differences. All analyses were carried out at the national level and sub-national level by key equity stratifiers such as area of residence (i.e. urban/rural) and socio-economic status (i.e. quintiles based on per capita expenditure).

OUT-OF-POCKET PAYMENTS FOR HEALTH

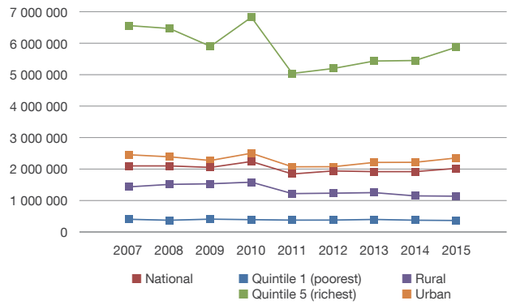
OOP payments for health are defined as expenditures made by individuals directly to health providers at the time of receiving a health service or good. They include formal cost-sharing (i.e. payments for the part not covered by a third party, such as an insurer) and informal payments (i.e. under-the-table payments) but exclude insurance premiums *(3,16).* OOP payments are broadly acknowledged to be the least equitable and the least efficient form of financing *(17).* They tend to be disproportionately concentrated among the poor rather than the rich and do not allow sharing of financial risk across the healthy and the sick, the rich and the poor, or the elderly and the young. Monitoring changes in the level and distribution of such payments is thus crucial. This section examines trends in OOP payments for health during the period 2007–2015 at national and sub-national levels and by type of health service or good in order to better understand who pays and for what.

During the period 2007–2015, OOP payments for health in the Islamic Republic of Iran remained stable in real terms at an estimated average of 2 million rials per person per year (Fig. 1.1a), with an average annual percentage point change of 0.6[1]. As utilization rates for health have increased during the same period (Box 1.2), this indicates that the population received more services for approximately the same level of OOP payments. A slightly higher rate of OOP spending on health was observed by the richest quintile and by urban residents (average annual percentage point change of 1.2 and 1.1, respectively) compared to lower (and negative) rates of OOP spending by the poorest quintile and by rural residents (average annual percentage point change of –0.1 and –0.9, respectively). Furthermore, during the period, average OOP spending by the rich was 15 times that by the poor, and OOP spending by urban residents was nearly twice that by rural residents. Higher OOP payments by the rich reflect a greater willingness-to-pay and capacity-to-pay for health services. It has been suggested that such payments are for services that are not publicly covered, may be medically unnecessary (e.g. cosmetic procedures) or are accessed in the private sector (e.g. for perceived better quality). Lower OOP payments by the poor may reflect foregone care, an issue faced by many countries *(18)* and which should be monitored in the Islamic Republic of Iran.

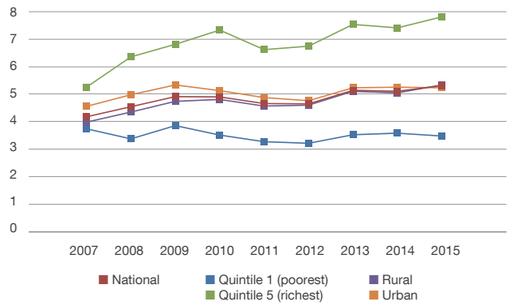
FIGURE 1.1:
OOP PAYMENTS FOR HEALTH, 2007–2015 (IN CONSTANT 2011 RIALS)

Source: Authors' analysis of data from the Household Income & Expenditure Surveys

a. OOP payments per person per year



b. OOP payments as a percentage of total expenditure



Although OOP payments for health were generally stable in absolute terms, they increased at a faster pace relative to all other household spending. Moreover, total expenditure has actually decreased as a reflection of a decline in living standards due to economic sanctions and very high inflation rates (Box 1.3). Thus, OOP payments for health as a percentage of total expenditure slightly increased at the national level, primarily driven by the rich (Fig. 1.1b). This raises the question – which types of health services or goods are paid for by the rich and by the poor?

[1] Average annual changes were estimated by regressing the variable in question on the year of survey.

Box 1.2: Service utilization and financial protection

Progress on financial protection can be achieved as the result of specific health policies (e.g. extending insurance coverage, reducing formal co-payments, eliminating informal payments) that protect against the adverse impact of paying OOP at the point of accessing care. However, protection can also appear to be seemingly provided as a result of people choosing to forgo the care they need because they find it unaffordable in the first place. This underlines the importance that financial protection and service utilization should be analysed in tandem. Improving financial protection should not go through the non-utilization of services. In other words, service use is a part of the pathway to improving financial protection.

In the Islamic Republic of Iran, utilization rates for both outpatient and inpatient services have increased slightly during the period 2010–2017 as shown in Table B1.2-1 for members of the two main public health insurance funds. Comparing this with total OOP payments for health in Fig. 1.1a suggests that the population is receiving more health services for approximately the same level of OOP payments.

In the analysis of financial protection, it is equally important to also understand whether individuals are accessing services in the first place and whether such access is equitable or not.

Utilization rates for outpatient and inpatient services are shown in Fig. B1.2-1 by key equity stratifiers. Utilization rates for outpatient services were higher for richer and urban residents than for poorer and rural residents, while utilization rates for inpatient services were similar across all socio-economic groups. For outpatient services, the absolute difference between the richest quintile and the poorest quintile was 13.0 percentage points, and the proportional difference (i.e. the ratio of utilization rates of the richest quintile over the poorest quintile) was 1.21. In comparison, less inequalities were observed for inpatient services. The absolute difference between the richest quintile and the poorest quintile was much smaller at 4.0 percentage points, and the relative difference was approximately on par at 1.04. Thus, access to health services showed some inequities in regard to outpatient services but none for inpatient services.

TABLE B1.2-1:
SERVICE UTILIZATION RATES PER PERSON PER YEAR, 2010–2017 (PERCENTAGE AMONG THOSE WITH UNMET NEED, MULTIPLE RESPONSES ALLOWED)

Source: Authors' analysis of data provided by the Iran Health Insurance Organization (IHIO) and the Social Security Organization (SSO)

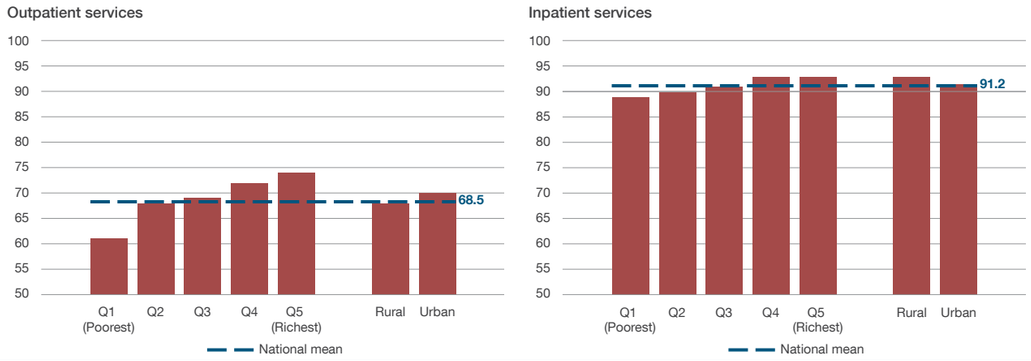
	2010	2011	2012	2013	2014	2015	2016	2017
Outpatient department visits	7.6	7.4	7.5	7.3	7.1	7.6	7.9	8.0
Inpatient department admissions	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.12

Note: The IHIO and SSO covered 95% of the population in 2017.

BOX 1.2 (CONTINUED)

FIGURE B1.2-1:
SERVICE UTILIZATION BY SOCIO-ECONOMIC STATUS, 2015 (PERCENTAGE AMONG THOSE IN NEED OF CARE)

Source: Authors' analysis of data from the Islamic Republic of Iran's Health Utilization Survey, 2015

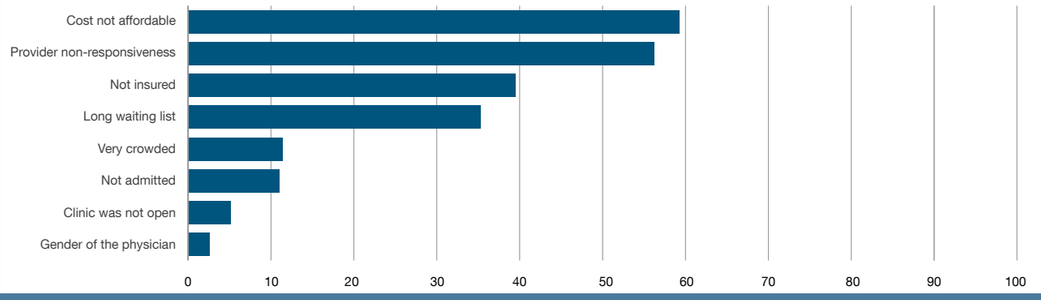


The population, especially the poor, may not have their need for health services met because they face barriers to access. These barriers can be due to finding services unaffordable, unavailable or unacceptable, resulting in the forgoing of health services.

Fig. B1.2-2 shows the reasons for non-utilization of outpatient services, allowing respondents to cite multiple reasons. The main reasons cited were financial and related to the unaffordability of the costs of services, followed closely by the lack of insurance coverage. This suggests that OOP payments for health are creating a financial barrier to access. As such, it would be important to monitor levels of unmet need over time and reasons underlying foregone care. This should be part of the analysis of financial protection in order to better develop policy responses.

FIGURE B.1.2-2:
REASONS FOR FOREGONE CARE, 2015 (PERCENTAGE AMONG THOSE WITH UNMET NEED, MULTIPLE RESPONSES ALLOWED)

Source: Authors' analysis of data from the Islamic Republic of Iran's Health Utilization Survey, 2015



Box 1.3: Household purchasing power for health services and goods

How have inflation and the rising costs of health services and goods affected household standards of living and their purchasing power for health services and goods? This question can be addressed by analysing the annual rate of inflation (measured by Consumer Price Indices[a]) against changes in household standards of living (proxied by income). If inflation is increasing faster than income, households will be negatively affected because, although they are earning more, the purchasing power of their earnings would be inadequate to offset the more rapidly rising consumer prices. The effect of rising costs in the health sector can also be assessed by comparing the pace of inflation for all consumer items with that specifically for health services and goods.

Fig. B1.3-1 shows that inflation in the Islamic Republic of Iran was high and volatile during the period 2008–2015, with double-digit growth rates. The rates fluctuated from a low of 10% in 2009 to a high of 34% in 2013 (likely reflecting stronger economic sanctions in 2012), after which the rate decreased to 11% in 2015 (likely reflecting market expansion after some initial sanctions relief). Inflation has also increased much faster than household income, which has sometimes had negative real growth. Rates ranged from a low of –13% in 2008 to a high of 3.8% in 2014. The slower growth in household income is related to the effect of sanctions, low oil prices and the 2007–2008 financial crisis *(19)*. Furthermore, commodity prices rose in response to the phased reductions in and redistribution of fuel subsidies that started in 2010 *(20)*. To mitigate these effects on households, cash transfers were provided, initially to all and later by excluding wealthier households *(20,21)*. While the amount of the transfers was initially sufficient to balance the additional financial burden imposed by rising prices, the amount has remained stable and has thus not retained its value because of increases in fuel prices coupled with currency devaluations *(20)*. Household income has therefore been insufficient to cope with the rising cost of living in the country, although the situation improved in 2014–2015, when the gap between annual rates of inflation and income appeared to close. The situation is likely to have changed after the recent re-imposition of economic sanctions and should be monitored.

Fig. B1.3-2 shows a comparison of the annual percentage change of inflation for all goods and services with inflation specifically for health goods and services in the Islamic Republic of Iran. The prices of health care were more stable than those for all goods between 2008 and 2011. However, since 2011, inflation for health goods and services has risen more sharply, reaching a peak of 39% in 2013 and outpacing all other consumer items since then. Prices naturally rise when demand increases relative to supply. In the Islamic Republic of Iran, the main influencing factors include the fact that health is high on the country's development agenda, basic health insurance coverage was extended and the increasingly ageing population requires more care. Other factors are technological changes, which tend to be linked with more expensive care, shortages in the health labour market driving up wages and the overall Baumol effect in the sector *(22)*.

[a] Measure of the change in the price of a defined basket of goods and services over a specified time period (e.g. months or year). Changes thus reflect a rise or fall in the cost of living.

BOX 1.3 (CONTINUED)

In other words, cost is driven by both price and quantity. During the past three years, the price of health care in the country has grown at an average annual rate of 21% while that for all goods has grown at an average annual rate of 16% – in other words, health prices are rising about 30% faster.

The average household in the Islamic Republic of Iran is negatively impacted not only because inflation lowers their standards of living but also because rapidly rising prices in the health sector further reduces their purchasing power for health services. The pattern of these data series also carries some important budgetary implications because, if decisions on government budgets for health are made in relation to overall consumer prices rather than health care prices, the health sector will be underfunded in real terms.

FIGURE B1.3-1:
ANNUAL PERCENT CHANGES IN INFLATION AND INCOME, 2008–2015

Source: Authors' analysis of data from the Household Income and Expenditure Surveys and of Consumer Price Indices provided by the Statistical Centre of Iran in October 2017

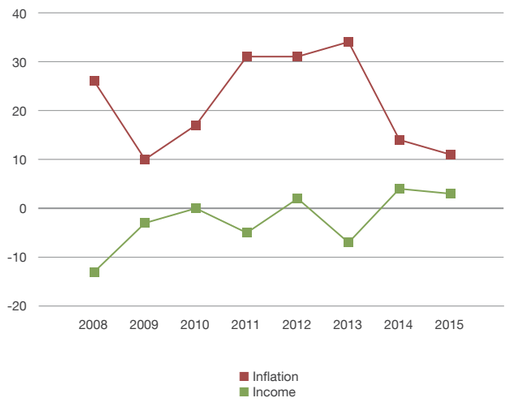
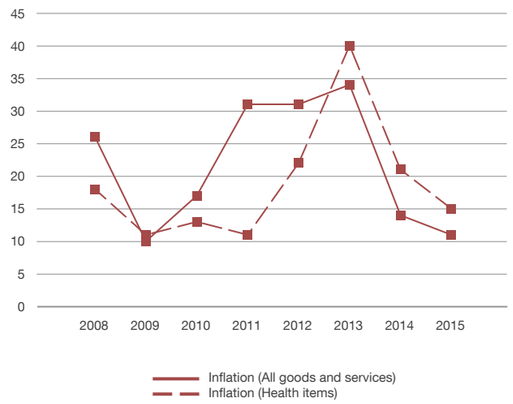


FIGURE B1.3-2:
ANNUAL PERCENTAGE CHANGES IN INFLATION FOR ALL GOODS AND SERVICES AND FOR HEALTH ITEMS, 2008–2015

Source: Authors' analysis of Consumer Price Indices provided by the Statistical Centre of Iran in October 2017



Disaggregating total OOP payments for health by type of service or good offers some insight into what drives such payments. Fig. 1.2 shows the proportion of total OOP payments for inpatient services, outpatient services, medicines, ancillary care, dentistry and other services or goods during 2007–2015. Despite some fluctuations over the years, OOP payments for inpatient services decreased proportionally from 33% in 2007 to 22% of total OOP payments in 2015. A reduction in OOP spending on inpatient services in public hospitals was one of the priorities of the 2014 HTP, and these findings suggest prior momentum towards the desired impact. The decrease, however, was offset by a proportional increase in spending on medicines from 19% of total OOP spending in 2007 to 28% in 2011, after which it generally remained stable.

During the period 2007–2015, the average annual change in levels of OOP payments for inpatient services decreased in absolute terms by –40 439 rials per person per year, while that for medicines increased by 16 198 rials per person per year.

Subsidies were introduced in 2011 and 2013 to improve the affordability of and access to medicines, and these appear to have stemmed the rate of any further increase in OOP payments for medicines.

While the analysis of OOP payments for health by the poorest and by the richest 20% of the population during the period 2007–2015 revealed different patterns over time, spending on medicines was the common driver (Fig. 1.3). On average, the majority (43%) of total OOP payments made by the poor were for medicines, a quarter (24%) for outpatient services and over a tenth (14%) for inpatient services. The spending patterns of the poor also changed over time, with a general decrease in OOP spending on outpatient services and an increase in OOP spending on inpatient services in both absolute and relative terms. These shifts might be indicative of inefficiencies in accessing services, whereby the poorest population may have increasingly sought treatment in the inpatient setting when they could have been treated in outpatient clinics.

FIGURE 1.2:
OOP PAYMENTS BY TYPE OF HEALTH SERVICE OR GOOD, 2007–2015 (IN CONSTANT 2011 RIALS)

Source: Authors' analysis of data from the Household Income and Expenditure Surveys

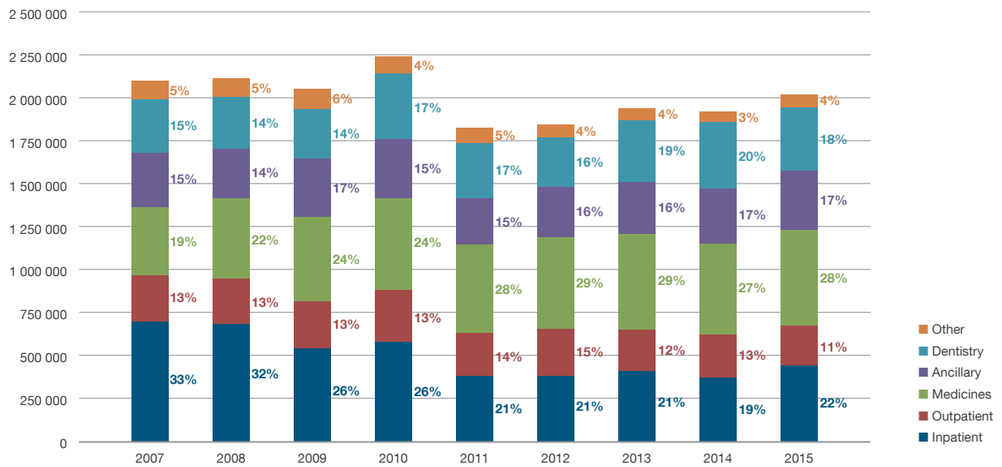
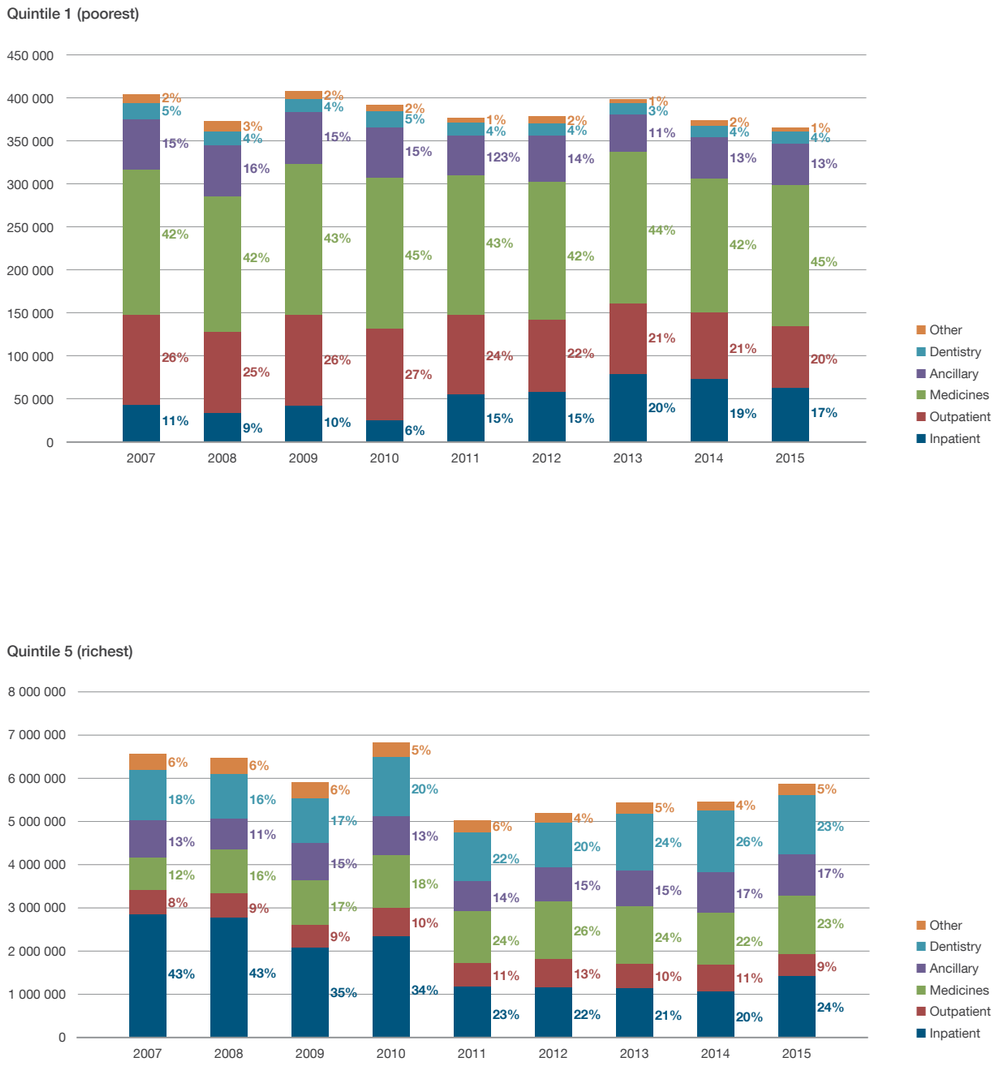


FIGURE 1.3:
OOP PAYMENTS BY TYPE OF HEALTH SERVICE OR GOOD FOR SELECTED QUINTILES, 2007–2015 (IN CONSTANT 2011 RIALS)

Source: Authors' analysis of data from the Household Income and Expenditure Surveys



The pattern of OOP payments for health by the richest quintile shows that they spent approximately 15 times more OOP in absolute terms than the poor and that they spent on different items. On average, almost one third (30%) of total OOP payments by the richest quintile were for inpatient services, followed by a fifth (21%) for dentistry and a fifth (20%) for medicines. Decreases in OOP payments by the rich for inpatient services over time were offset by increases in OOP payments for medicines in both absolute terms and as a proportion of total OOP payments. Whereas medicines are the main driver of OOP spending by the poor, that of the rich was almost equally driven by medicines, inpatient services and dentistry. In absolute terms, the OOP payments made by the richest quintile for dental services were approximately 80 times higher than those by the poorest quintile. This suggests that spending OOP for dentistry is an expense that the richer are willing to pay for as they are not covered well by the current benefit packages that are partially publicly financed (see Chapter 3).

Given that a high percentage of total OOP spending is on medicines, further attention to policies and practices related to pharmaceutical financing is merited. Prior to 2013, individuals were responsible for 60% of all pharmaceutical costs in the public sector with the remaining 40% covered by insurance funds. In 2013, the MoHME began to provide indirect subsidies to the main public health insurance funds in order to increase the affordability of imported essential medicines. Subsequently, and based on current co-payment rules, individuals are now responsible for 20% of all pharmaceutical costs in the public sector; the remaining 45% is covered by insurance funds, and 35% is subsidized by the MoHME. This cost-sharing arrangement is applied to the lowest-priced generic products. In addition, regulations introduced in 2014 also aimed to reduce OOP payments for medicines by eliminating referral of patients in public hospitals to purchase medicines in outpatient pharmacies where they would be responsible for the full cost.

Policies to reduce the financial hardship imposed by medicines appear to have stemmed increases in OOP payments for medicines since 2011. Such payments, however, still remain high and comprise a large percentage of total OOP payments. As such, the design and implementation of pharmaceutical policies should be reviewed, including physician practices in prescribing products that are not on the national drug list (typically more expensive imported brands or imported generics) rather than cheaper ones manufactured domestically. In addition, problems in the supply chain may result in inadequate provision of medicines to public hospitals. Pricing policies regarding mark-ups for manufacturers, distributors and pharmacies may also incentivize the prescription of more expensive brands. Finally, weak enforcement of pharmaceutical regulations and the growth of an unregulated market in the country also play a role *(23)*. These issues should be analysed in more detail to find ways for better monitoring and enforcement of prescription policies and practices.

FINANCIAL PROTECTION IN HEALTH SPENDING

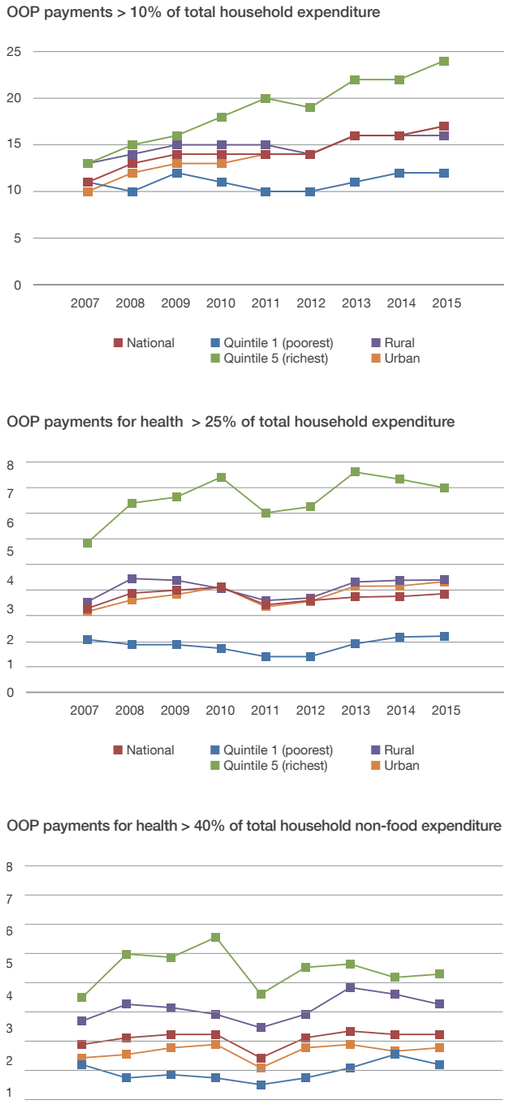
Financial protection is a priority for the Islamic Republic of Iran. In order to assess progress on this, we measured catastrophic health expenditures and impoverishing health expenditures[2] to better understand the direct financial consequences of using health services and paying OOP directly to providers when accessing those services *(1,2)*. We analysed these indicators over time at national and sub-national levels.

CATASTROPHIC HEALTH EXPENDITURES

OOP payments for health are considered catastrophic when they exceed a certain percentage of total household expenditure or income, where the concern is that high levels of spending on health can force one to forgo the consumption of other essential items (e.g. food). For this analysis, catastrophic health expenditures are defined according to two standard methods *(1,2)*. In the "budget share" approach, OOP spending on health is compared with total household expenditure and defined as catastrophic when such spending exceeded either 10% or 25% of the total. This standard approach is also used to monitor progress of the Sustainable Development Goals' indicator 3.8.2 on financial protection *(7)*. In the "capacity-to-pay" approach, OOP spending on health is compared with total non-food expenditure and spending is identified as catastrophic when it exceeded 40%.

FIGURE 1.4:
INCIDENCE OF CATASTROPHIC HEALTH EXPENDITURES, 2007–2015

Source: Authors' analysis of data from the Household Income and Expenditure Surveys



[2] These indicators of financial protection are well-established as evidenced by their use in the empirical literature *(2,4,5)* and adoption in international monitoring frameworks *(7)*. Some limitations, however, merit mention. These indicators have been criticized by some as they reflect only a narrow aspect of financial protection related to the negative impact of paying for health as a result of having accessed health services, and thus they do not consider that the poor may not find care affordable in the first place and may forgo health services *(24)*. Other criticisms are that these indicators likely underestimate broader adverse effects of OOP payments given its focus on direct medical costs and exclusion of indirect costs, such as those related to transportation to access services and the loss of income due to illness *(25)*. Total OOP payments for health also do not distinguish between discretionary and non-discretionary spending on health. Some OOP payments may be for medically unnecessary services, such as plastic surgery or cosmetic dental care. These issues should be further investigated.

Fig. 1.4 shows the incidence of catastrophic health expenditures during the period 2007–2015. The percentage of the population whose OOP payments for health are greater than 10% of total expenditure increased from 11.4% in 2007 to 17.0% in 2015, with an average annual percentage point change of 0.6. This increase was, however, driven mainly by the rich as the incidence for the poor remained stable. The percentage of the population whose OOP payments are greater than 25% of total expenditure increased slightly, from 2.9% in 2007 to 3.9% in 2015, with an average annual percentage point change of 0.1. The percentage of the population whose OOP payments exceeded 40% of non-food expenditure also slightly increased, with an annual average percentage point increase of 0.02. As policies to reduce co-payments for costlier inpatient services were implemented only in 2014, it is expected that related OOP payments in future years will decrease, thus reducing their catastrophic impact[3].

Comparison of the incidence of catastrophic health expenditures in rural and urban areas and by quintile suggests that area of residence is less of a driver than the socio-economic status of the household. Results showed similar trends regardless of whether the household resided in rural or urban areas. In contrast, results showed that the richest quintile had a much higher incidence of catastrophic health expenditures than the poorest quintile[4].

IMPOVERISHING HEALTH EXPENDITURES

Financial protection is also concerned with reducing the impoverishing impact of OOP payments for health, which can push a person into or further into poverty. Ill health and the costs associated with seeking care are among the main reasons for becoming poor or remaining trapped in poverty *(26)*. The extent to which OOP payments exacerbate poverty can be estimated from the proportion of the population whose total expenditure was above the poverty line before paying OOP for health (i.e. total expenditure gross of OOP payments for health) but who slipped below the poverty line as a result of having made such payments (i.e. total expenditure net of OOP payments for health) *(1,2)*.

Fig. 1.5 shows the percentage of the population impoverished using three international poverty lines. These poverty lines are expressed per person per day and estimated in 2011 Purchasing Power Parity (PPP). They correspond to the extreme poverty line of 2011 PPP $1.90-a-day as well as higher poverty lines of 2011 PPP $3.20-a-day and 2011 PPP $5.50-a day. The extreme poverty line is popularly used in global monitoring, and the latter two poverty lines have been recommended by the World Bank for monitoring poverty in lower–middle and upper–middle income countries *(27)*.

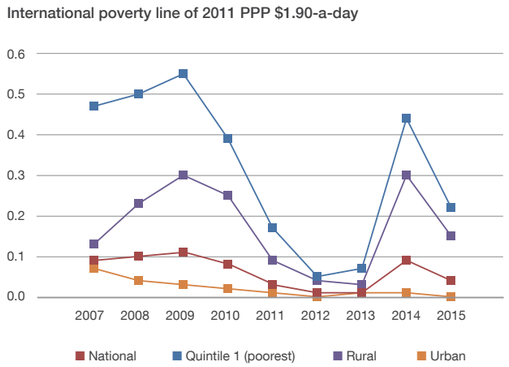
When impoverishment due to OOP payments was measured using the extreme poverty line of 2011 PPP $1.90-a-day, the incidence rate remained generally stable and at very low levels (less than 0.1%). In 2015, an estimated 0.04% of the population became poor because of OOP payments for health (representing an increase in the general poverty rate from 0.24% to 0.28% when accounting for OOP payments). Using the 2011 PPP $3.20-a-day poverty line, the rate of impoverishment was estimated to be 0.4% in 2015 (representing an increase in the general poverty rate from 2.4% to 2.8% when accounting for OOP payments). Finally, using the 2011 PPP $5.50-a-day poverty line, the impoverishment rate was 1.4% in 2015 (representing an increase in the general poverty rate from 10.9% to 12.3% when accounting for OOP payments). While the rates of impoverishment due to OOP payments may seem low, the relative impact of spending OOP on health is not negligible. OOP payments in the Islamic Republic of Iran increased the number of poor by approximately 14% between 2007 and 2015, which translates into one person in seven living below the 2011 PPP $5.50-a-day poverty line because of having paid OOP for health.

[3] Co-payment rates for inpatient services in public hospitals were reduced in 2014. Any effect of the reduction would appear only in expenditures made in 2015 and be reflected in the 2016 household survey, which was not made available at the time of this analysis.

[4] This is partly a by-product of the way the indicator is constructed as spending more OOP on health will increase total expenditure, which is the sum of non-medical and medical expenditures.

FIGURE 1.5:
INCIDENCE OF IMPOVERISHING HEALTH EXPENDITURES, 2007–2015

Source: Authors' analysis of data from the Household Income and Expenditure Surveys



During 2007–2015, impoverishment rates at the national level generally remained stable regardless of the poverty line used (average annual percentage point change of –0.01 using the 2011 PPP $1.90-a-day poverty line, –0.02 using the 2011 PPP $3.20-a-day poverty line and –0.04 using the 2011 PPP $5.50-a-day poverty line). The poorest quintile and rural residents were, unsurprisingly, the most affected given their already lower standard of living. The rates of impoverishment also reflect the macro-economic situation, mirroring changes in the level of real gross domestic product (GDP) which notably decreased between 2010 and 2012 because of sanctions and subsequently rose between 2012 and 2014 after some initial sanctions relief *(28)*. The recent re-imposition of economic sanctions by the United States makes future economic growth uncertain, and effects on poverty should continue to be closely monitored.

We also estimated the poverty gap due to OOP payments for health in order to measure the depth of poverty or the extent to which the population is pushed below a poverty line because of OOP payments for health. This indicator complements estimates of impoverishment due to OOP payments, which identify only those who are pushed into poverty as a result of making OOP payments and not those who were already below the poverty line. For those people identified as impoverished by OOP spending, the gap is the amount by which OOP payments pushed them below the poverty line; for those who are already poor, the gap is total OOP payments. Table 1.1 shows mean poverty gaps per person per day, in constant 2011 rials. Gaps were estimated for the entire population as well as only for those in poverty. Using the 2011 PPP $5.50-a-day poverty line, the extent of poverty due to OOP payments has fluctuated over time. On average, OOP payments increased the poverty gap by approximately 120 rials per person per day during 2007–2015. When estimating the gap among the poor, the mean poverty gap was 774 rials per person per day across the period.

TABLE 1.1:
POVERTY GAPS DUE TO OOP PAYMENTS FOR HEALTH, 2007–2015 (PER PERSON PER DAY, CONSTANT 2011 RIALS)

Source: Authors' analysis of data from the Household Income and Expenditure Surveys

International poverty line	2007	2008	2009	2010	2011	2012	2013	2014	2015
2011 PPP $1.90-a-day									
Poverty gap due to OOP	2.4	1.7	2.5	1.4	0.5	0.2	0.5	1.2	0.9
Poverty gap due to OOP, among the poor	176	135	146	92	86	200	254	168	257
2011 PPP $3.20-a-day									
Poverty gap due to OOP	25	19	25	15	7	6	7	16	13
Poverty gap due to OOP, among the poor	558	408	458	388	312	370	292	354	327
2011 PPP $5.50-a-day									
Poverty gap due to OOP	159	146	162	124	77	77	90	119	122
Poverty gap due to OOP, among the poor	874	809	829	805	716	707	736	729	759

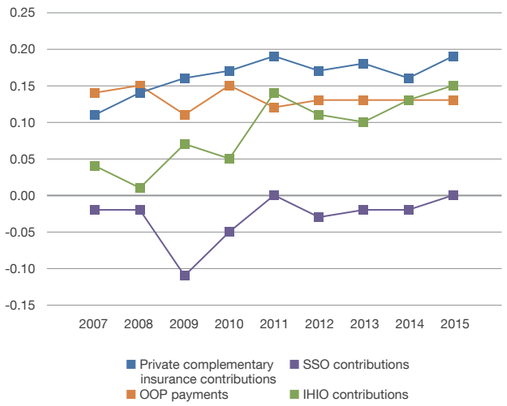
EQUITY IN THE DISTRIBUTION OF HOUSEHOLD CONTRIBUTIONS TO THE HEALTH SYSTEM

The analysis in this chapter has thus far focused on OOP payments, however households also make other contributions to the health system in the form of prepayments to various health insurance schemes. Such contributions are preferred to OOP payments as they allow sharing of risks and tend to be better linked to ability-to-pay. This analysis assessed the degree to which the distribution of various household contributions to the health system of the Islamic Republic of Iran were equitable.

The analysis assessed and compared the degree of equity in household contributions made to the two main public health insurance schemes in the Islamic Republic of Iran (i.e. the Iran Health Insurance Organization (IHIO) and the Social Security Organization (SSO)), to private complementary insurance schemes and to providers as OOP payments. Households also contribute to the health system through direct and indirect taxes; however, as many taxes are imposed and as data from household expenditure surveys on tax contributions were not made available, they were not analysed. Although this analysis does not cover all household contributions to the health system, it is informative as it provides a comparative assessment of how equitably distributed specific sources of household financing for the health system are in the country.

FIGURE 1.6:
KAKWANI INDICES FOR SELECT HOUSEHOLD CONTRIBUTIONS TO HEALTH, 2007–2015

Source: Authors' analysis of data from the Household Income and Expenditure Surveys



Note: Based on the assumption that the entire population could contribute to any of the insurance schemes, i.e. the sample is not restricted to those who made a contribution.

In order to assess the extent to which the distribution of household contributions is equitable, we estimated the Kakwani index. This index measures the degree to which people with greater ability-to-pay (proxied by total expenditure) pay proportionally more for health than those with less ability-to-pay. The index ranges from –2 (indicating severe regressivity, with the poor paying proportionally more for health than the rich) to +1 (indicating strong progressivity, with the rich paying proportionally more for health than the poor). An index of 0 indicates proportionality, with the poor and the rich spending the same proportion of their total expenditure on health.

The degree of equity in the distribution of household contributions to the health system varies according to the type of financing (Fig. 1.6). Contributions to private complementary insurance appear to be the most progressive source of financing in the Iranian health system, with an average Kakwani index of 0.16 during 2007–2015. This is not unexpected as it reflects the fact that richer people usually subscribe to private schemes and as these schemes in the country provide supplementary coverage.

OOP payments for health in the Islamic Republic of Iran were also found to be progressive, with a positive Kakwani index of 0.13 averaged over the period 2007–2015. In other words, the rich paid proportionally more OOP than the poor. This is in contrast to many other countries and likely reflects the fact that the benefit package in the country is generous (see Chapter 3) such that the poor are protected from paying OOP for needed services, and the rich may pay OOP in order to access additional services provided in the private sector. The finding that OOP payments were progressive might also reflect the fact that the poor sometimes forgo health services and thus do not make any OOP payments, an issue faced by many countries *(18)* and which should be monitored in the country.

Household contributions to the IHIO are increasingly made according to ability-to-pay, as shown by a rising and positive Kakwani index. This may reflect the significant increase in government revenues allocated to the health sector, a large portion of which was allocated to the IHIO to subsidize coverage for the population living in rural areas and the remaining uninsured (see Chapter 2). Finally, household contributions to the SSO were found to be proportional, with Kakwani indices around 0. In other words, SSO contributions made by the poor represent the same proportion of their total expenditure as those made by the rich. Proportionality may also reflect the effect of ceilings on contributions, which were only recently removed[5], as the fixed upper limit would not fully reflect the greater ability-to-pay of those in the upper end of the income distribution.

[5] Until 2017, both insurance funds had an upper limit for premiums. IHIO contributions were capped at twice the minimum salary and those to the SSO at seven times the minimum salary (as determined annually by the Supreme Labour Council of the Islamic Republic of Iran).

INFLUENCE OF THE TIMING OF POLICIES AND OF HOUSEHOLD CHARACTERISTICS

To understand the extent to which changes in financial protection correlate with the timing of key policy changes or with other household factors, we analysed the determinants of catastrophic health expenditures. The analysis was based on a multivariate logistic regression using pooled data for all the years, an outcome variable of catastrophic health expenditures and the following explanatory variables: year, area of residence of the household (i.e. rural or urban), characteristics of the household head (i.e. sex, insurance status, educational level, employment status, literacy, civil status), whether at least one household member was younger than 5 years and whether at least one household member was older than 60 years. The year variable was included to capture the association of catastrophic health expenditures with time, and other variables were included to capture the association with household characteristics, either as a known determinant of catastrophe and/or as a proxy of the need for health services. Results were similar across different models in which the outcome variable of catastrophic health expenditures was defined using different methods.

Table 1.2 shows the estimated effects of all potential determinants of catastrophic health expenditures expressed as odds ratios (ORs), which indicate the likelihood of such expenditures. The ORs generally increased over time as compared to the reference year of 2007. This suggests that recent policies aimed at improving financial protection are not yet leading to desired results, perhaps because they take time to "trickle down". The results also suggest that socio-economic status influences the likelihood of having catastrophic health expenditures as those in the richest quintile were significantly more likely to be affected[6], particularly when catastrophe was defined with a higher threshold (OR=2.74 at the 10% threshold; OR=9.44 for the 25% threshold).

Other determinants of catastrophic health expenditures include whether the household is in a rural or an urban area and the employment status of the household head. With regard to the former, people living in rural areas had a higher likelihood of facing catastrophe than those living in urban areas (OR=1.27 at the 10% threshold; OR=1.53 at the 25% threshold). This suggests that the protective effect of insurance for rural residents could be further improved. With regard to employment status, the unemployed were significantly more likely to face catastrophe (OR=1.40 at the 10% threshold; OR=1.56 at the 25% threshold) than those in employment. This finding suggests that better information should be provided to ensure that households understand that entitlement to insurance coverage is not exclusively linked to employment status. Finally, the composition of the household also influences the probability of catastrophe. Those with an elderly member over the age of 60 years (OR=1.33 at the 10% threshold; OR=1.31 at the 25% threshold) or with a child under 5 years of age (OR=1.11 at the 10% threshold; 1.27 at the 25% threshold) are more likely to be affected. The presence of an elderly member in a household as a determinant of catastrophic health expenditures should be a matter of concern for policy-makers as the population of the country is projected to age, and as the burden of noncommunicable diseases is likely to increase.

The factors that reduce the likelihood of catastrophic health expenditures include the level of education of the head of the household, the OR falling to less than 1.0 if the household head has a bachelor's degree (OR=0.59 at the 10% threshold; OR=0.34 at the 25% threshold). Insurance is also a protective factor against catastrophe (OR=0.88 at the 10% threshold; OR=0.80 at the 25% threshold)[7]. Certain socio-demographic groups also appeared to fare better than others, including households in which the head is a female or a student, perhaps because these groups also receive other social benefits, increasing their ability to pay for and to cope with OOP payments for health.

[6] This is partly a by-product of the way the indicator is constructed as spending more OOP on health will increase total expenditure, which is the sum of non-medical and medical expenditures

[7] Our model is naïve and includes health insurance membership as an exogenous variable. As insurance membership is prone to selection bias, the results therefore reflect correlation and not causality

TABLE 1.2:
ESTIMATED EFFECTS ON CATASTROPHIC HEALTH EXPENDITURES

Source: Authors' analysis of data from the Household Income and Expenditure Surveys

OR = Odds Ratio SE = Standard Error CI = Confidence Interval

*** significant at 1% ** significant at 5% * significant at 10%

	OOP payments > 10% of total expenditure				OOP payments > 25% of total expenditure				OOP payments > 40% of total non-food expenditure			
	OR	SE	CI		OR	SE	CI		OR	SE	CI	
Year (reference = 2007)												
2008	1.15***	0.04	1.07	1.23	1.24***	0.08	1.09	1.40	1.18**	0.08	1.03	1.35
2009	1.26***	0.05	1.17	1.36	1.26***	0.09	1.09	1.46	1.22**	0.10	1.04	1.43
2010	1.27***	0.04	1.19	1.35	1.31***	0.08	1.16	1.49	1.23***	0.09	1.07	1.41
2011	1.31***	0.04	1.23	1.40	1.08	0.07	0.94	1.22	0.92	0.07	0.79	1.06
2012	1.30***	0.05	1.21	1.39	1.15**	0.08	1.01	1.31	1.19**	0.09	1.03	1.38
2013	1.56***	0.05	1.46	1.67	1.41***	0.09	1.25	1.60	1.39***	0.10	1.22	1.59
2014	1.57***	0.05	1.47	1.68	1.43***	0.09	1.27	1.62	1.32***	0.09	1.16	1.51
2015	1.71***	0.06	1.60	1.83	1.49***	0.10	1.31	1.69	1.33***	0.10	1.16	1.54
Insurance status (reference = Not insured)												
Insured	0.88***	0.02	0.85	0.92	0.80***	0.03	0.74	0.86	0.73***	0.03	0.67	0.80
Quintile (reference = Q1)												
2	1.25***	0.03	1.19	1.32	1.67***	0.10	1.49	1.88	1.52***	0.09	1.35	1.72
3	1.55***	0.04	1.48	1.63	2.58***	0.16	2.29	2.91	2.30***	0.15	2.03	2.61
4	1.92***	0.05	1.82	2.03	4.12***	0.26	3.65	4.65	3.56***	0.23	3.14	4.04
5	2.74***	0.08	2.59	2.91	9.44***	0.60	8.34	10.68	8.60***	0.58	7.54	9.80
Area of residence (reference = Urban)												
Rural	1.27***	0.02	1.23	1.31	1.53***	0.05	1.44	1.63	2.12***	0.07	1.99	2.27
Employment status (reference = Employed)												
Unemployed	1.40***	0.03	1.34	1.46	1.56***	0.06	1.44	1.69	1.55***	0.07	1.42	1.70
Student	0.83	0.30	0.41	1.68	0.44	0.26	0.14	1.38	0.33	0.27	0.06	1.69
Homemaker	1.34***	0.11	1.14	1.57	1.46***	0.20	1.12	1.90	1.24	0.18	0.93	1.64
Other	1.88***	0.11	1.67	2.11	2.30***	0.23	1.90	2.79	2.19***	0.24	1.76	2.72
Marital status (reference = Married)												
Divorced	0.82***	0.03	0.75	0.89	0.70***	0.05	0.60	0.80	0.75***	0.06	0.64	0.88
Widowed	0.87	0.08	0.72	1.05	0.88	0.14	0.64	1.21	0.80	0.15	0.55	1.16
Never married	0.75***	0.06	0.64	0.89	1.17	0.16	0.89	1.53	1.21	0.18	0.91	1.62
Sex (reference = Male)												
Female	1.03	0.04	0.94	1.12	0.95	0.07	0.82	1.10	0.88	0.07	0.75	1.03

TABLE 1.2 (CONTINUED):
ESTIMATED EFFECTS ON CATASTROPHIC HEALTH EXPENDITURES

	OOP payments > 10% of total expenditure				OOP payments > 25% of total expenditure				OOP payments > 40% of total non-food expenditure			
	OR	SE	CI		OR	SE	CI		OR	SE	CI	
Education level (reference = Illiterate)												
Elementary	0.84***	0.02	0.81	0.88	0.72***	0.03	0.66	0.78	0.72***	0.03	0.66	0.79
Guidance/middle school	0.82***	0.02	0.77	0.87	0.66***	0.04	0.59	0.73	0.58***	0.03	0.52	0.65
High school	0.69***	0.02	0.65	0.73	0.49***	0.03	0.44	0.55	0.41***	0.03	0.36	0.48
Bachelor/university	0.59***	0.02	0.55	0.63	0.34***	0.02	0.29	0.39	0.28***	0.02	0.23	0.33
Post-graduate	0.51***	0.11	0.33	0.78	0.27***	0.12	0.12	0.64	0.27**	0.17	0.08	0.91
Don't know	0.91*	0.05	0.82	1.01	0.80**	0.08	0.66	0.97	0.83*	0.08	0.68	1.02
Household composition (reference = No member)												
Elderly > 60 years	1.33***	0.03	1.28	1.39	1.31***	0.05	1.21	1.41	1.44***	0.06	1.32	1.56
Child < 5 years	1.11***	0.02	1.06	1.15	1.27***	0.05	1.18	1.37	1.30***	0.06	1.19	1.41
Province (reference = Tehran)												
Gilan	2.17***	0.09	2.00	2.35	2.07***	0.16	1.78	2.40	2.38***	0.22	1.99	2.85
Mazandaran	1.39***	0.06	1.28	1.51	1.36***	0.11	1.16	1.60	1.27**	0.13	1.04	1.54
East Azerbayjan	1.87***	0.08	1.72	2.02	2.07***	0.16	1.77	2.41	2.16***	0.21	1.80	2.61
West Azerbayjan	1.43***	0.06	1.31	1.55	1.57***	0.13	1.34	1.84	1.83***	0.18	1.51	2.21
Kermanshah	1.41***	0.07	1.29	1.55	1.19*	0.11	1.00	1.43	1.40***	0.15	1.13	1.72
Khuzestan	1.20***	0.06	1.09	1.31	1.37***	0.12	1.15	1.63	1.67***	0.17	1.37	2.05
Fars	1.29***	0.06	1.18	1.40	1.33***	0.11	1.12	1.57	1.35***	0.14	1.10	1.64
Kerman	1.72***	0.07	1.58	1.87	2.49***	0.21	2.11	2.94	2.84***	0.28	2.33	3.45
Razavi Khorasan	1.01	0.04	0.92	1.10	1.05	0.09	0.89	1.25	1.27**	0.13	1.04	1.55
Isfahan	1.85***	0.08	1.70	2.01	1.83***	0.15	1.57	2.15	1.84***	0.19	1.51	2.24
Sistan and Baluchestan	0.61***	0.03	0.55	0.68	0.71***	0.08	0.57	0.90	0.93	0.12	0.72	1.19
Kurdistan	0.96	0.05	0.87	1.06	1.19*	0.12	0.98	1.46	1.47***	0.17	1.18	1.84
Hamedan	1.26***	0.05	1.16	1.37	1.50***	0.13	1.27	1.77	1.81***	0.18	1.49	2.20
Caharmahal and Bakhtiari	1.64***	0.07	1.50	1.78	1.84***	0.15	1.57	2.16	2.06***	0.20	1.70	2.49
Lorestan	0.99	0.05	0.90	1.09	1.28**	0.12	1.06	1.55	1.43***	0.16	1.14	1.78
Ilam	1.39***	0.07	1.27	1.53	1.87***	0.17	1.57	2.23	2.03***	0.21	1.65	2.49
Kohgiluyeh and Boyerahmad	1.19***	0.05	1.09	1.30	1.17*	0.11	0.97	1.40	1.31**	0.14	1.06	1.62
Bushehr	0.74***	0.04	0.67	0.82	1.22**	0.12	1.01	1.47	1.44***	0.16	1.15	1.80
Zanjan	1.15***	0.05	1.05	1.25	1.08	0.10	0.90	1.29	1.21*	0.13	0.98	1.49
Semnan	1.70***	0.08	1.55	1.86	1.83***	0.17	1.53	2.18	1.98***	0.23	1.58	2.47
Yazd	0.92	0.05	0.83	1.03	1.18	0.13	0.96	1.46	1.21	0.16	0.93	1.57
Hormozgan	1.03	0.05	0.94	1.12	1.54***	0.13	1.31	1.81	1.89***	0.18	1.56	2.29
Markazi	1.36***	0.06	1.24	1.49	1.52***	0.13	1.28	1.80	1.60***	0.17	1.30	1.96
Ardebil	1.08*	0.05	0.99	1.19	1.03	0.10	0.86	1.24	1.23*	0.13	1.00	1.52
Qom	1.96***	0.10	1.78	2.16	2.68***	0.25	2.23	3.21	2.69***	0.32	2.13	3.39
Qazvin	0.96	0.05	0.87	1.06	0.90	0.09	0.74	1.11	0.89	0.11	0.70	1.13
Golestan	1.69***	0.07	1.56	1.82	2.49***	0.19	2.14	2.90	2.62***	0.25	2.18	3.15
North Khorasan	1.69***	0.07	1.56	1.83	2.02***	0.16	1.73	2.35	2.41***	0.23	2.00	2.89
South Khorasan	0.43***	0.02	0.39	0.48	0.44***	0.06	0.34	0.57	0.47***	0.07	0.35	0.62
Alborz	0.75***	0.06	0.64	0.87	0.85	0.13	0.64	1.14	0.70*	0.14	0.48	1.03

Notes: The odds ratio (OR) can be interpreted as the percentage increase in the incidence of catastrophic health expenditures compared with that of a reference group. For example, an OR of 1.15 indicates a 15% increase as compared with the reference group, and an OR of 0.90 indicates a 10% decrease as compared with the reference group.

Diagnostics regarding model specification was assessed with the Hosmer–Lemeshow test, and the results indicate a reasonable goodness of fit.

WAY FORWARD: FROM EVIDENCE TO POLICY OPTIONS

This chapter has sought to analyse how OOP spending on health in the Islamic Republic of Iran evolved during the period 2007–2015, how protected the population is from financial hardship as a result of paying OOP and how equitable is the financing of the country's health system. Based on findings, policy levers were identified for further improving financial protection and equity in health spending.

The analysis of OOP payments for health suggests that they stabilized during the period 2007–2015, at approximately 2 million rials per person per day. The finding that OOP payments have remained constant when millions of people have become newly insured (see Chapter 2) and utilization rates for health services have increased suggest that the population is receiving more health services for approximately the same level of OOP payments.

Nevertheless, while OOP payments for health have remained relatively constant, they have increased as a share of total household expenditure. This is due partly to a decrease in total household spending, reflecting a general decline of living standards due to economic sanctions and very high inflation rates. As such, the re-imposition of economic sanctions and the effect this will have on household welfare and spending on health should be monitored.

We found that the rich spend approximately 15 times more than the poor on health services, reflecting their greater willingness-to-pay and capacity-to-pay for health services. It has been suggested that such payments are for services that are not publicly covered, may be medically unnecessary (e.g. cosmetic procedures) or are accessed in the private sector (e.g. for perceived better quality). Policy measures could be initiated to transform some OOP payments by the rich into prepayments that can be pooled across the population. This could be achieved, for example, by offering a more comprehensive benefit package (e.g. including dental services), to which the rich gain entitlement by paying a slightly higher premium.

Medicines are an important driver of total OOP spending on health in the Islamic Republic of Iran. Such payments increased by 16 198 rials per person per year during 2007–2015. They represented nearly half of total OOP spending by the poor and a quarter of total OOP spending by the rich in 2015. Subsidies for medicines introduced in 2011 and in 2013 appeared to have stemmed increases in such OOP payments. Nevertheless, attention should continue to be paid to pharmaceutical pricing and prescription policies as well as the market structure, the supply chain and the overall regulatory environment. This would be especially prudent in light of the re-imposition of sanctions and the effect they may have on the availability and affordability of medicines. In addition, it can be expected that OOP spending on medicines will also increase as the burden of noncommunicable diseases rises in the country, further imposing financial hardship.

The analysis of financial protection during the period 2007–2015 showed some increases in catastrophic health expenditures, although the poorest population remained financially protected. The national level incidence of catastrophic health expenditures, defined as OOP payments for health exceeding 10% of total household expenditure, was estimated to be 17.0% in 2015, with an average annual percentage point change of 0.6 over 2007–2015. The increase was mainly driven by the rich as the incidence among the poor has remained stable over time. The finding that the rich are more affected may not be a major concern for policy-makers given that this population group seems to have a greater willingness-to-pay and capacity to-pay. With higher living standards, the rich can more easily cope with spending 10% or more of their available resources on health.

When catastrophic health expenditures is defined as OOP payments for health exceeding 25% of total household expenditure, the incidence rate increased only slightly during the period 2007–2015, with an average annual percentage point change of 0.1. In 2015, the incidence rate was estimated to be 3.9% for the entire population, 2.0% for the poorest and 7.2% for the richest. In the future, the incidence is expected to fall as a result of policies implemented in 2014 to reduce co-payments for inpatient services.

In terms of impoverishment due to OOP payments for health, the proportion of the population affected remains small. Using the 2011 PPP $5.50-a-day poverty line, the average incidence rate is approximately 1.5% over the period 2007–2015, with an average annual percentage point decrease of –0.04. While rates of impoverishment due to OOP payments are low, the relative impact of OOP spending for health is not negligible. They increased the number of poor by approximately 14% during the period, which translates into one person in seven living below the 2011 PPP $5.50-a-day poverty line due to having paid OOP for health.

Although impoverishment due to OOP payments for health is generally decreasing, it has fluctuated over time: decreasing between 2009 and 2012, rising between 2012 and 2014 during the period of stronger economic sanctions and decreasing slightly between 2014 and 2015 with prospects for economic growth due to some sanctions relief. The poverty rates inversely reflect changes in real GDP per capita *(28).* With uncertainty about the growth of the country's economy, it remains to be seen how this will affect poverty. Poverty due to OOP health payments cannot, however, be remedied simply by economic growth. Specific actions are required to reduce inequalities and better protect the poor and vulnerable.

The extent to which financing is equitable in the Islamic Republic of Iran depends on the type of household contribution to the health system. Premiums paid to private insurance funds and OOP payments to providers were found to be the most progressive sources of financing, with the rich paying proportionally more than the poor. This is likely due to the fact that the benefit package is very generous (see Chapter 3) such that the poor are protected from paying OOP for needed services. In addition, it is likely the richer who subscribe to complementary private insurance and/or are paying OOP to access supplementary services that are not publicly covered, may be medically unnecessary (e.g. cosmetic procedures) or are accessed in the private sector (e.g. for perceived better quality).

With regard to the premiums paid to the public health insurance funds, household contributions to the IHIO were also assessed as progressive, and contributions to the SSO were found to be proportional. The degree of equity of contributions to either public health insurance fund could be further increased by revising their rates (e.g. by collecting proportionally more from the rich while offering an even more comprehensive benefit package that includes supplementary services such as those for dentistry) and by better targeting premium exemptions (e.g. means testing beyond simple geographical targeting). Policy options to further increase the progressivity of these sources of financing could be explored as population coverage increases and benefits are modified.

Our analysis of the determinants of catastrophic health expenditures during the period 2007–2015 suggests a higher likelihood of catastrophe in later years, after controlling for other factors. Many of the policies that aimed to reduce OOP payments and improve financial protection (e.g. banning informal payments, reducing co-payments) were implemented only in 2014 as part of the HTP. The data used in this analysis pre-date those initiatives. It is too soon to assess the impact of such policies as these will undoubtedly take time to "trickle down". The results of this analysis should therefore serve as a baseline and as motivation for the Islamic Republic of Iran to ensure that it has placed itself on the right path to improving financial protection and equity in health spending.

While extension of insurance coverage and significant public investment in the health system are laudable initiatives, they might not lead to improvements in financial protection on their own. More comprehensive and systemic change is required to make progress. Policy actions must be well-aligned to ensure synergies rather than counteractive effects. Actions should address population awareness about the services that are covered, a defined menu of cost-effective interventions, cost-sharing arrangements, regulation of informal fees and balanced-billing practices, gatekeeping mechanisms and referral systems, provider payment methods, pharmaceutical policies and practices, utilization patterns and quality of care. Improvements in financial protection will require careful thought about the design and implementation of specific health financing policies and will need to ensure that these are linked to other policies in the broader health system.

Policy options and analyses for making further progress in financial protection and equity in health spending during the next phase of health reforms in the Islamic Republic of Iran are proposed below:

- Improve equity and efficiency in revenue collection by transforming OOP payments made by the rich at the time of accessing health services into forms of prepayment that can be pooled across the population. This could be achieved by offering a more comprehensive supplementary benefit package (e.g. including dental services), to which the rich can subscribe at a slightly higher premium.
- Improve the degree of equity of prepayments to the main public health insurance funds by examining and ensuring that the rates are actuarially sound. An assessment of the effectiveness of the current geographical targeting mechanism could indicate whether subsidies are indeed reaching the poor or whether there are "leaks" to the rich. This may inform consideration of other means-testing mechanisms to better target exemptions from premiums to the poor and vulnerable.
- Improve financial protection by redesigning the structure of co-payments. This could include revisions to co-payment rates to better account for varying ability-to-pay or establishing exemptions or protective caps for the poor and vulnerable.
- Ensure more efficient consumption of health services and goods through a defined menu of cost-effective interventions and a harmonized mix of provider payment mechanisms to minimize perverse incentives and maximize positive incentives in the provision of health services.
- Improve the effectiveness of policies aimed at improving financial protection by ensuring alignment with the design of other health system policies. For example, policies on referrals should reduce inefficient care-seeking patterns in accessing and paying for unnecessary care and/or care provided at inappropriate and costlier levels, and policies on extra-billing by private providers should stem this practice to avoid negative effects on the poor.
- Further improve the affordability of medicines by reviewing pharmaceutical policies and practices. This could include an assessment of pricing policies and strategies (including mark-ups), a review physician practices in prescribing medicines, and an examination of the supply chain and the availability of medicines in public hospitals.
- Further improve financial protection by a deeper analysis of the drivers of catastrophic and impoverishing health expenditures. This could include examining the extent to which OOP spending is for essential services compared with payments for medically unnecessary services and analysing OOP spending made in the public sector compared to payments made in the private sector. The analysis can leverage recent revisions made to the latest household expenditure survey questionnaire in 2016, which now collects such information.

The aim of these policy options is to further protect the Iranian population from the consequences of catastrophic and impoverishing OOP payments and to ensure more equitable financing of the health system.

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CHAPTER 2
Health insurance: institutional arrangements and financial performance

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KEY MESSAGES

The Islamic Republic of Iran has extended health insurance coverage to a nearly universal level. In 2017, an estimated 95% of the population was covered by a public health insurance scheme. This achievement is a direct result of a significant investment made in 2014 to the Health Transformation Plan (HTP), by which an additional 6.5 million previously uninsured Iranians were covered in the first year and a total of 8 million by 2017. It further builds on the success of extending coverage to the rural population through a dedicated scheme established in 2005.

The importance of ensuring universal access to health care in the country is reflected in its constitution, which explicitly recognizes health as a fundamental human right and underscores the role of insurance mechanisms in increasing access and financial protection. In addition, the Universal Health Insurance Act, passed by Parliament in 1994, mandated universal coverage and thus represents the beginning of the country's drive towards universal health coverage.

The health insurance landscape has evolved over 60 years, from its original basis in the labour market to gradually extending coverage to the entire population. The main public health insurance funds were established at different points in time, each targeting specific population groups. This incremental approach has resulted in the currently fragmented insurance landscape and is at the root of some challenges the health system faces today in terms of equity and efficiency.

The country currently has four main public health insurance funds. The Social Security Organization (SSO) and the Iran Health Insurance Organization (IHIO) are the two largest and cover 52% and 43% of the country's population, respectively. The Armed Forces Medical Services Insurance Organization (AFMSIO) covers servicemen, and the Imam Khomeini Relief Foundation (IKRF)[1] provides assistance to the means-tested poor. There are also approximately 17 smaller semi-public schemes run by various state-owned entities. Private insurance funds also play a complementary role.

The financial situation of the health insurance funds critical to understanding how sustainable, efficient and equitable is coverage and the related health benefits. Policy changes led to laudable increases in coverage and also shifted the financial risk from consumers to health insurance funds due to increases in tariffs and changes in cost-sharing arrangements. These changes, combined with the provision of a generous package, of benefits and current reliance on fee-for-service (FFS) payment mechanisms, have likely affected the financial sustainability of the public health insurance funds and the country's budget for health.

Extension of population coverage has not always been supported with comparable increases in the revenues of the health insurance funds. The sources used to finance these funds are complex, and full understanding of the sources of revenues, expenditures, arrears and reserves is essential to ensure the solvency and financial future sustainability of the funds. This is particularly important for costing health financing policy options and assuring the long-run financial sustainability and improved performance of the health system.

[1] In a law passed recently by Parliament in 2019, the Imam Khomeini Relief Foundation was merged with the Iran Health Insurance Organization.

INTRODUCTION

Health insurance is critical for improving population access to health services that might otherwise be unaffordable *(1,2)* and is thus linked to one of the principal goals of the health system, i.e. financial protection. Health insurance is, therefore, an important instrument that contributes to progress towards universal health coverage (UHC). While there is no "one size fits all" model, as insurance can take many forms (e.g. run by governments, nongovernmental organizations, communities or private commercial companies), all insurance models broadly comprise the pooling or sharing of unpredictable risks among healthy and sick individuals facing large unexpected costs for needed health services. The pooling of such risks in insurance reduces uncertainty and mitigates financial barriers because access is made more affordable through prepayments, which should reflect the average costs of the entire insurance pool. These relatively small payments are made in advance by individuals for coverage against the financial risk of potential large unexpected costs associated with needed health services when ill. Pooling of risks allows for cross-subsidization among the healthy and the ill, young and elderly and, if public or publicly subsidized, rich and poor. Pooling is also closely interlinked with the other two functions of a health financing system, which are raising revenues and purchasing health services (see Chapter 3). The levels and sources of revenues raised influence the redistributive capacity of pools, and larger pools of resources will increase the purchasing power for health services. The pooling of risks therefore fosters more equitable access to health services and better financial protection and can also increase the efficiency of the health system.

The importance of ensuring universal access to health care in the Islamic Republic of Iran is reflected in its constitution, which explicitly recognizes health as a fundamental human right and underscores the role of insurance mechanisms in increasing access and financial protection: *"Everyone has the right to health and medical treatments through insurance or other means. In accordance with the law, the government is obliged to use the proceeds from the national income and public contributions to provide the above-mentioned services and financial support for each and every one of its citizens".*

This commitment to health is also reflected in two major pieces of legislation. The first is the Social Security Law, approved by Parliament in 1952 and amended in 1975, which made it compulsory for all workers to obtain insurance coverage from the Social Security Organization (SSO) *(3)*. The second is the Universal Health Insurance Act, approved by the country's Parliament in 1994, which formally mandated universal provision of insurance coverage. These legislative acts catalysed key policy initiatives, such as the extension of insurance coverage to rural areas in 2005 and the extension of insurance to the remaining uninsured population as part of the Health Transformation Plan (HTP) in 2014. As a result of such initiatives, insurance coverage was an impressive 95% in 2017, increases in out-of-pocket (OOP) payments for health have been stemmed and utilization rates for health services have also increased (see Chapter 1). The Islamic Republic of Iran is one of the few middle-income countries to achieve this level of coverage.

Key changes in insurance arrangements are as follows:

- **1952:** Approval of the Social Security Law and creation of the Social Insurance Organization
- **1975:** Amendment of the Social Security Law to make it compulsory for all formal sector workers to obtain health insurance coverage from the Social Security Organization, previously known as the Social Insurance Organization
- **1979:** Creation of the Imdad Committee Health Insurance (now known as the Imam Khomeini Relief Foundation), a charity-based health insurance body providing basic health coverage for means-tested poor
- **1994:** Enactment of the Universal Health Insurance Act, which mandated universal insurance coverage and resulted in creation of the Medical Services Insurance Organization (now known as the Iran Health Insurance Organization)
- **1995:** Establishment of the High Council for Health Insurance, which was mandated to ensure universal access to health insurance and given the responsibility for developing health policies on population insurance coverage, medical tariffs, purchase of health services and provider payment methods
- **2005:** Launch of basic health insurance for populations in rural areas, with premiums subsidized by the government
- **2012:** Merger of various basic health insurance schemes under the newly constituted Iran Health Insurance Organization (previously known as the Medical Services Insurance Organization)
- **2014:** Launch of the Health Transformation Plan, one of the main objectives being to provide basic health insurance coverage for all remaining uninsured people, with responsibility assigned to the Iran Health Insurance Organization and with premiums subsidized by the government

The overall aim of this chapter is to analyse the public health insurance arrangements in the Islamic Republic of Iran by assessing key design features of the system against recommended features for insurance and pooling arrangements (Box 2.1) that are known to facilitate progress towards intermediate system objectives of equity, efficiency and sustainability and towards the overall system goal of UHC with its two dimensions of financial protection and service coverage. The specific objectives of the chapter are:

- To analyse the evolution of the establishment of the various health insurance schemes in order to understand pooling arrangements and assess the degree of efficiency given the fragmentation;
- To assess current arrangements for each insurance scheme, including the targeted populations, eligibility criteria, enrolment basis, contribution mechanisms and rates, and benefits and cost-sharing conditions; and
- To examine changes in population coverage, key performance measures of insurance funds (e.g. revenue per capita, expenditure per capita, outpatient department visits and inpatient admissions) and emerging challenges to the solvency and equitable nature of the funds.

On the basis of this analysis, the chapter presents policy options for institutional and financial changes that would render insurance arrangements more equitable, efficient and sustainable as the Iranian health system moves closer towards UHC.

Box 2.1: Key features of pooling arrangements that facilitate progress towards UHC

Country experiences reveal seven common design features of pooling arrangements that facilitate progress toward UHC:

1. **Mandatory and pre-paid contributions: Financial contributions to insurance pools should be compulsory and paid in advance of accessing care. These features help to ensure a sufficient pool of resources with which to fund health services and to reduce financial risk.**
2. **Weakening the link between contributions and entitlements: The link between wage-based contributions and eligibility for health service benefits can result in gaps in coverage for people who are not in the labour force. This problem can be addressed by greater reliance on general budget revenues from direct and indirect taxes to ensure that people not in regular salaried employment receive benefits.**
3. **Predominant reliance on public financing: The government budget is critical for coverage of groups who are unable to contribute, by subsidizing the costs of services for the poor and other vulnerable populations. This reflects concern about equity by providing coverage for people who cannot afford contributions.**
4. **Maximizing redistributive capacity: Consolidating pools or formally sharing risks will increase the ability of health insurance funds to cross-subsidize risks, reduce administrative costs and increase efficiency by providing greater market "clout" for the purchaser.**
5. **Reducing fragmentation: A large number of small pools reduces the ability to redistribute the available prepaid funds, increases administrative costs and limits each individual insurer's market penetration. They also increase the potential for duplication or gaps in membership as well as inequities with different entitlements. In contrast, a smaller number of larger pools helps to reduce administrative costs and increases market power for purchasing health services. Fragmentation can also be reduced through a "functional" merger whereby policies (e.g. on benefit entitlements, patient co-payments, provider payment mechanisms) are harmonized among insurance funds.**
6. **Complementary revenue sources: Funds from different sources can be combined to improve equity. For example, government revenues can be combined with payroll contributions in order to cross-subsidize coverage for vulnerable population groups, thereby reducing inequities.**
7. **Preventing risk-selection: Participation in pools should be unrelated to an individual's medical circumstances, thus helping to avoid gaps in coverage. This feature is particularly important when an individual can choose and/or be allowed to enrol in multiple insurance schemes and would help to avoid risk segmentation and adverse selection which destabilize insurance markets.**

Source: Authors' adaptation *(4, 5)*

EVOLUTION OF THE HEALTH INSURANCE LANDSCAPE IN THE ISLAMIC REPUBLIC OF IRAN

The health insurance landscape in the Islamic Republic of Iran has evolved continually over 60 years. The main public health insurance funds were established at different points in time, each targeting specific population groups (Table 2.1). This incremental approach has resulted in the currently fragmented insurance landscape and is at the root of the challenges the health system faces today in terms of equity and efficiency.

The groundwork for the current insurance system in the country can be traced back to 1952, with the establishment of the Social Insurance Organization. This was later reconstituted as the Social Security Organization (SSO) after the amendment of the Social Security Law in 1975, which made enrolment in the SSO obligatory for people in the formal private sector *(3).* The health insurance system in the country was thus originally based on the labour market following traditional Bismarck-type models. Over the years, coverage by the SSO has been extended to the self-employed, non-wage earners and other wage earners. SSO is currently the largest public health insurer in the country, covering an estimated 52% of the population in 2017 (Table 2.2) and with health expenditure representing approximately 27% of the country's total current health expenditure and 49% of general government health expenditure in 2016 *(6).* SSO's revenue comes from contributions from three sources: employees, employers and the government. In addition to financing health, SSO also provides services through its own health centres and hospitals to its members free of charge (see Chapter 3). Furthermore, SSO maintains a wider portfolio of social services, providing pension services and benefits in cases of accidents, unemployment and death *(3).*

Coverage of health services for the country's Armed Forces closely followed establishment of the social insurance system. In 1956, Parliament passed a legislative act to support provision of health services for its servicemen. In 1975, in parallel with the reconstitution of the SSO, the Armed Forces Medical Services Insurance Organization (AFMSIO) was also created. AFMSIO is financed by funds from the Ministry of Defence and the government. The last available coverage estimate is for the year 2012 and indicates 4.8 million members, representing 6% of the country's population *(7).*

Following the 1979 Iranian Revolution, the principles of social justice and equity rose to the forefront, and pro-poor policies became an integral part of the Post-Revolutionary State. With regard to health, this resulted in the creation that same year of the Imdad Relief Committee Health Insurance, which was later reconstituted as the Imam Khomeini Relief Foundation (IKRF), a charity organization with the broad mandate to provide basic social services, including for health, for the poorest citizens who were otherwise unable to afford the premium payments required to enrol in the SSO. Creation of the IKRF was therefore in recognition that previous contribution-based approaches to health insurance, which linked coverage to employment, resulted in inequities as large parts of the population (especially the poor) remained uncovered without access to health services. The last available estimate for the year 2012 indicates that the IKRF provided assistance coverage to an estimated 1.2 million primarily poor individuals, representing 2% of the country's population *(7).*

In 1994, 15 years after the Revolution, Parliament approved the Universal Health Insurance Act, which represents the beginning of the Islamic Republic of Iran's drive towards UHC. The Act was catalysed by a finding that an estimated 60% of the Iranian population remained uninsured at that time *(3).* On the basis of this Act, the Medical Services Insurance Organization (MSIO), now known as the Iran Health Insurance Organization (IHIO), was created. Over the years, a number of smaller schemes were created within the IHIO, which included various schemes targeting specific population groups such as nomads and villagers and the self-employed, as well as other schemes covering specific services (e.g. inpatient services). Two major extensions under the IHIO were also made: in 2005, to cover rural residents and in 2014, to cover all remaining uninsured people *(8,9).* The IHIO is currently the second largest public health insurer in the country, covering an estimated 43% of the population in 2017 (Table 2.2) and

with expenditure representing approximately 15% of the country's current health expenditure and 27% of public health expenditure in 2016 *(6).* The IHIO's financing is based on contributions from members, employers and the government, with a heavy reliance on government budget transfers.

A number of smaller health insurance schemes have been created by public employers (e.g. state oil companies, national banks, public transport operators, the national public broadcasting company, cooperatives), providing health insurance coverage for their employees and dependents *(10).* The number of such schemes has varied over the years and was reported to be 30 in 2008 and 17 in 2016 *(10,11).* They generally have relatively smaller memberships, ranging from less than 100 000 to just over 1 million individuals *(11)* and altogether were estimated to represent 3.5% of the country's population in 2012 *(7).* In addition, these schemes have a larger revenue base and therefore offer more generous health benefit packages for their beneficiaries than the other public funds.

Finally, private health insurance companies also play a relatively small but growing role in the country's health system. The Iran Insurance Company is a cooperation of 26 organizations that provide private insurance for largely complementary coverage. The coverage rate of these schemes has grown over time, from 7.8 million in 2010 to 12 million in 2015, suggesting a willingness to pay more to access health services that are not included in the public benefit package (e.g. dental services) or to access services of perceived better quality in the private sector. Given the growing role of the private sector in the financing system, coordination with the public sector is critical to avoid a two-tiered system and escalating expenses.

All health insurance funds in the Islamic Republic of Iran are governed to a greater or lesser extent by the High Council for Health Insurance (HCHI) (see Chapter 3), a decision-making body mandated by Parliament in 1994 to ensure universal access to health insurance. The HCHI is responsible for developing policies for population insurance coverage, medical tariffs, purchasing health services and provider payment methods. The decisions taken by the HCHI apply to all public and private insurers and providers, although the enforcement of such decisions remains unclear.

The health insurance landscape in the Islamic Republic of Iran thus currently comprises the four main public health insurance funds (i.e. IHIO, SSO, AFMSIO and IKRF) and the smaller semi-public schemes run by various state-owned entities and private insurance funds. Extension of coverage was incremental as funds were developed to target specific population groups. This incremental approach has resulted in a fragmented landscape, raising concern about inequities and inefficiencies in the system. Limited pooling of funds and lack of formal cross-subsidization has limited the potential for risk-sharing and contributes to potential gaps in coverage. Limited pooling also contributes to inefficiency as multiple smaller funds increases administrative costs. The efficiencies that could be gained from more pooling could be directed to purchasing high-quality services.

Legislation has been enacted over the years to address the fragmented configuration of the Iranian health insurance system. The initiatives include a proposal in 2001 to unify the social security system[2], although no major physical or functional merger actually occurred at that time. In addition, a law was passed by Parliament in 2010 that stipulated a structural merger of all public health insurance funds (with the exception of the AFMSIO) *(12).* Following this, some smaller insurance schemes that provided basic coverage were merged under the IHIO in 2012. Since then, no other major initiative to pool or formally cross-subsidize risks has been introduced, although some coherence in policies has been achieved, notably for benefits and cost-sharing (see Chapters 3 and 5).

[2] Following the third 5-year National Development Plan, a Comprehensive Organizational Structure of the Social Security System (COSSSS) was proposed to Parliament in 2001, which would ensure unified stewardship of the social security system. In 2004, Parliament enacted the COSSSS and the Ministry of Cooperative, Labour and Social Welfare (then the Ministry of Welfare and Social Security) was established and given all responsibilities and related authorities in insurance.

The changes in the landscape of health insurance funds have occurred at the same time as other institutional reforms in the health sector and significant changes in the macro-fiscal environment. The institutional reforms included legislation mandating the extension of insurance coverage and health policies, changing the roles and relations between purchasers and providers (see Chapters 3 and 5). Macro-fiscal changes, due to the impact of sanctions and volatility in oil prices, resulting in high rates of inflation, high levels of unemployment and negative economic growth, have affected the ability of health insurance funds to sustain coverage for a growing and ageing membership base and to pay providers for the provision of a generous benefit package.

CURRENT INSURANCE ARRANGEMENTS

In the Islamic Republic of Iran, a number of insurance schemes are providing coverage to specific, sometimes overlapping, population groups. Table 2.1 summarizes the target population group, definition of eligibility, basis of enrolment, contribution mechanisms and contribution rates for individuals, employers and the government for each health insurance fund. The IHIO provides health insurance coverage through four schemes: a contribution-based fund for which enrolment is mandatory for civil servants, a fully subsidized fund for which enrolment is automatic for rural residents, a subsidized fund for which enrolment is automatic for other socially vulnerable groups, and a fully subsidized fund for which enrolment is voluntary for the self-employed and all other populations. Similar to the IHIO, the SSO also has four schemes, each targeting a specific population group and with different revenue bases. Apart from a contribution-based mandatory fund for those in the formal private sector and temporary civil servants, SSO also has three voluntary funds for self-employed workers, for non-wage earners and for other wage earners. The IKRF provides free coverage assistance for the poor; its members differ from those eligible for the IHIO scheme for other socially vulnerable groups in that IKRF members are means-tested. Finally, the AFMSIO is a mandatory fund for servicemen and their dependents.

TABLE 2.1:
TARGET POPULATION, BASIS OF ENROLMENT AND CONTRIBUTION ARRANGEMENTS BY HEALTH INSURANCE SCHEME

	Target population and definition of eligibility	Basis of enrolment	Contribution mechanism	Member contribution	Employer contribution	Government contribution
Iran Health Insurance Organization						
Civil servants	Permanent (current or retired) civil servants and their dependents	Mandatory	Payroll deductions	2.33% of monthly salary	2.33% of monthly salary[a]	2.33% of monthly salary
Rural	Residents of rural areas, tribal areas or areas with a population of less than 20 000	Automatic, based on area of residence and registration with a rural health centre	Government subsidies	0	0	310,000 rials per person per month
Universal	The self-employed[b] or those individuals without health insurance[c] and living in urban areas	Voluntary, by registration	Government subsidies	0	0	310,000 rials per person per month
Other socially vulnerable groups	Individuals identified by the State Welfare Organization and Martyrs and Veterans' Foundation (e.g. martyrs, clergy, the disabled) and university students, including their dependents	Voluntary for students; Automatic for all others	Monthly premiums	0 For students, the 310,000 rials per person per month premium is paid 50% by the student and 50% by the university	0	6% of the minimum monthly salary[d]
Social Security Organization						
Formal private sector workers and temporary civil servants[e]	Individuals working for institutions governed by the Social Security Law, including their dependents	Mandatory	Payroll deductions	2% of monthly salary	6% of monthly salary[f, g]	1% of monthly salary
Self-employed	Individuals who have employed workers or who are recognised as working by the SSO and are not subject to any special protective law	Voluntary	Monthly premiums[h]	310,000 rials per person per month	0	0
Non-wage earners	Individuals who are not currently employed but receiving benefits, not more than 55 years old and have a record of 30 days contribution payment, including their dependents	Voluntary	Premiums based on declared monthly salary	8% of premium	0	1% of premium
Other wage earners	Specified groups of wage earners[i]	Voluntary	Payroll deductions	2% of the minimum monthly salary[d]	3.0–4.8% of minimum monthly salary[d], depending on the group[j]	2.2–4.0% of minimum monthly salary[d], depending on the group[j]
Imam Khomeini Relief Foundation						
The poor	Individuals whose income is lower than 40% of the minimum monthly salary[d] and who live in areas with a population of more than 20 000	Voluntary, by registration and after means-testing	Government subsidies	0	0	6% of the minimum monthly salary
Armed Forces Medical Services Insurance Organization						
Servicemen	Servicemen (active or retired) and their dependents	Mandatory once registered in the Armed Forces	Payroll deductions	2.0% of monthly salary	2.0% of monthly salary	4% of monthly salary

[a] Contribution rates for those currently employed. Those for retirees are shared, such that 2.0% of the monthly pension is paid by the previous employer, 2.0% by the retiree and 3.0% by the government.

[b] Differs from the self-employed covered by the SSO scheme, who are those working part-time in the service industry (e.g. shopkeepers, tailors, hairdressers); since the launch of the HTP in 2014, this IHIO scheme covers mainly previously uninsured individuals.

[c] Also includes a small scheme called "Iran insurance" covering fewer than 100 000 individuals for which the monthly contributions was previously shared 50% by the individual and 50% by the government. After the HTP and the extension of coverage under the universal scheme, the individual's share reduced to 15% and the government's share increased to 85%.

[d] Determined annually by the Supreme Labour Council.

[e] Employees with temporary or short-term contracts (i.e. less than 4 years) with governmental organizations.

[f] Concerns health insurance benefits only. The total contribution rate for health insurance plus pensions and other social security benefits is 33% of monthly salary of which 7% is paid by the employee, 23% by the employer and 3% by the government.

[g] Contribution rates for those currently employed. Those for retirees are shared, such that 2% of the monthly pension is paid by the retiree, and the remaining 7% is paid by the SSO.

[h] Members contribute 12–18% of their monthly salary for various social benefits; medical care is optional, and contributions are at a fixed rate per person.

[i] Servants of the mosques and those deprived or in need covered by the Employment and Self-dependency Deputy of Imam Khomeini Imdad Committee; drivers, porters and administrators of self-employment and job-creation schemes covered by the Bonyad Shahid; authors, reporters and artists.

[j] In addition to contributing 1% of members' minimum monthly salary, the government also partially subsidizes the employers' share of 6% to the extent of 20–50%, depending on the group.

The diverse arrangements for participating in health insurance schemes (i.e. mandatory, automatic and voluntary enrolment) are shown in Table 2.1. Mandatory participation is the preferred basis for enrolment as it fosters sharing of risks, reduces uncertainty and mitigates financial barriers. Mandatory participation also helps to avoid adverse selection, which can destabilize the financial stability of pools over time and potentially lead to decreased insurance coverage. It is thus argued that mandatory participation increases efficiency and equity in pooling arrangements. Mandatory participation is linked to only three of the 10 insurance schemes in the country (i.e. the IHIO civil servants scheme, the SSO formal sector scheme and the AFMSIO), representing 41% of population. Automatic participation can be an efficient way of rapidly covering large groups of individuals who are relatively easily identified by certain socio-economic characteristics; however, it depends on population awareness of the benefits to which they are entitled. An automatic basis for enrolment characterizes two of the schemes under the IHIO (i.e. the rural scheme and the scheme for other socially vulnerable groups) and the IKRF (i.e. for individuals who are means-tested), altogether covering 24% of the population, particularly in rural areas and the poor. Several schemes (i.e. the IHIO universal scheme and three of the SSO schemes) are voluntary, comprising nearly 30% of the country's population. Voluntary participation is widely known to be problematic, prone to adverse selection and moral hazard, which can lead to financial instability of funds and eventually lack of coverage. Voluntary enrolment also depends on the population being aware of their entitlements. As such, no country has made substantial progress toward UHC by relying on voluntary participation.

Table 2.1 also shows the various contribution mechanisms applied in each scheme (i.e. percentage payroll deductions, fixed monthly premiums and per capita government subsidies). Payroll deductions create an obvious explicit link between contributions and entitlements and are a feature of the IHIO civil servants scheme (a 7% payroll deduction is shared equally among the employee, the employer and the government), and the SSO scheme for the formal private sector (a 9% payroll deduction is shared with 2% paid by the employee, 6% by the employer and 1% by the government). Deductions consist of a uniform (rather than a tiered) percentage applied to salaries, such that higher wage earners pay the same proportion as lower wage earners. Contributions thus do not account for the higher impact of payroll taxes on those with lower salaries. Furthermore, until 2017, contributions were capped by the IHIO at twice the minimum salary and by the SSO at seven times the minimum salary. The recent removal of such caps should improve the degree of equity in financing, as the caps previously limited the collection of contributions from those at the upper end of the income distribution. Contributions in the form of fixed premiums is the mechanism used by the IHIO scheme for other socially vulnerable groups. While fixed amounts are simple to understand, a flat rate contribution would be less equitable as it would represent a greater proportion of the ability-to-pay of the poor than that of the rich. Moreover, schemes in which this method is used cover poorer individuals. Finally, subsidized contributions are critical for extending insurance coverage to people who are otherwise unable to afford premiums and are thus important for equity. Premiums are fully subsidized by the government in three of the four IHIO schemes (i.e. the rural scheme, the universal scheme and the scheme for other socially vulnerable groups) and significantly support extension of coverage to people in the two poorest quintiles and those who live in rural areas. With the exception of its scheme for the self-employed, SSO's three other schemes are also partially supported by government transfers. The degree of equity in the collection of contributions (see Chapter 1) should improve with the recent removal of caps. Other policy options that may be considered are the introduction of tiered payroll tax rates and better targeting of subsidized premiums under the IHIO rural scheme, given no distinction is made between the rural rich and rural poor with neither group paying a premium.

BENEFITS AND COST-SHARING ARRANGEMENTS

The policies for benefits and cost-sharing in all the public health insurance funds are broadly the same (see details in Chapter 3). In addition to an essential benefit package of promotional and preventive public health services, which is free for all Iranians, members of the four public health insurance funds also have access to a common health insurance benefit package. This package covers emergency and curative care, including all general and most outpatient and inpatient services and generic medicines.

Payments to access the health insurance benefit package are based on established tariffs for accessing services in the public sector, and costs are divided among members, health insurance funds and the government. The arrangements in all the schemes are generally the same such that the patient co-payment rate is 10% of the public tariff for inpatient services and 30% for outpatient services; the remainder is covered by health insurance funds. The exception is the IHIO rural scheme, the members of which benefit from a lower co-payment rate of 3% for inpatient services accessed via the referral system with 2% paid by the Ministry of Health and Medical Education (MoHME) and 95% by the IHIO. SSO members face no costs for services delivered in SSO facilities, where an estimated 40% of SSO-financed care is provided. The exception is members of the SSO self-employed scheme who are responsible for 30% of public tariffs for outpatient services and 10% for inpatient services, even when accessed in SSO facilities. If an SSO member accesses services in MoHME facilities, the 10% and 30% rates apply for inpatient and outpatient services, respectively. For members of both the IHIO and SSO, extra-billing is allowed if insured individuals access services from contracted or non-contracted private providers. In such cases, they are liable to pay the percentage cost-sharing rate of public tariffs plus the difference between the private and public tariffs if accessed from contracted private providers and the full payment of the private tariff if accessed from non-contracted private providers.

POPULATION COVERAGE

The number of individuals covered by each health insurance fund is shown in Table 2.2 for the period 2010–2017. Despite some minor fluctuations, the table shows a general increase over time with nearly universal coverage in 2017. The SSO and IHIO are clearly the two largest funds and cover 52% and 43% of the country's population, respectively. Although IHIO's membership decreased slightly during 2010–2013, a significant increase in coverage of 17.3% was observed between 2013 and 2014. This increase of an additional 6.5 million individuals coincided with the launch of the HTP and extension of coverage to all remaining uninsured individuals, an initiative colloquially known as "Rouhani-care" *(13).*

In the SSO, coverage levels increased throughout the 2010–2017 period. The rate of increase was more rapid, at approximately 7% over 2010–2012, slowed to 0.1% in 2016 and then increased by 2.3% between 2016 and 2017. Some major shifts have occurred across some of the SSO's schemes, notably from its scheme for the self-employed to its scheme for other wage-earners during the last two years. This shift will have implications for its revenue base (i.e. the other wage earners scheme receives some contributions from the government, while the self-employed scheme does not) and for its members (e.g. other wage earners face no co-payments for services provided in SSO facilities while the self-employed do).

Coverage by the AFMSIO was approximately 6% of the country's total population in 2012, while that by the IKRF was about 2% *(7).*

Coverage levels are difficult to estimate accurately because of the multiple pools and likely duplicate coverage, which may arise due to population migration from rural to urban areas or changes in employment. Double-counting accounts for the finding that total coverage slightly exceeded universal levels in certain years. In addition, the small decrease in the total population covered between 2016 and 2017 is likely due to improvements in administrative systems in 2016 and reductions in duplicate coverage, rather than to a decrease in insurance coverage. Based on administrative data, the country has achieved a nearly universal level of coverage with 95% of its population covered in 2017. The socio-economic characteristics of those populations covered and the small percentage of those uncovered vary by scheme (Box 2.2).

Box 2.2: Who is covered and who is not covered?

The characteristics of those covered by a public health insurance fund and those that are not are illustrated in Fig. B2.2-1 based on household survey data from 2015, the latest year for which data were available. IHIO members are primarily in the two poorest quintiles and live in rural areas, corresponding to the fact that the IHIO's largest scheme is that for rural residents. SSO members are in the top three richest quintiles and live in urban areas, reflecting the fact that its largest scheme covers those in the formal private sector. Uninsured individuals can be found in all socio-economic groups, although the majority are the poor living in urban areas. This finding supports the recent focus on extending coverage in peri-urban areas, which has been challenging due to internal migration and the difficulty of urban planning where there is relatively less access to providers.

FIGURE B2.2-1:
POPULATIONS COVERED AND NOT COVERED BY HEALTH INSURANCE, BY QUINTILE AND AREA OF RESIDENCE, 2015 (PERCENTAGE WITHIN SOCIO-ECONOMIC GROUP)

Source: Authors' analysis of data from the Household Income and Expenditure Surveys

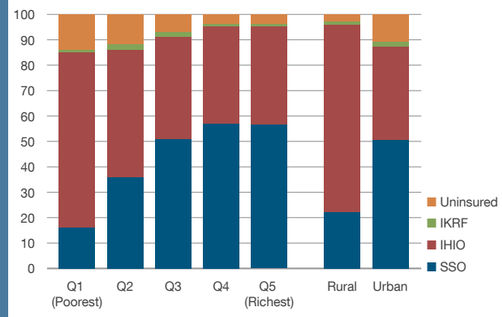

TABLE 2.2:
POPULATION COVERAGE BY PUBLIC HEALTH INSURANCE SCHEME, 2010–2017 (IN MILLIONS AND AS A PERCENTAGE OF TOTAL POPULATION)

Source: Administrative records of individual insurance schemes for the IHIO and the SSO.

	2010		2011		2012		2013		2014		2015		2016		2017	
Iran Health Insurance Organization																
Civil servants	6.4	9%	6.3	8%	6.2	8%	6.1	8%	6.0	8%	5.8	7%	5.7	7%	5.0	6%
Rural	23.1	31%	23.5	31%	23.2	30%	23.2	30%	22.9	29%	21.8	28%	22.3	28%	17.9	22%
Universal	4.2	6%	3.9	5%	3.0	4%	2.6	3%	9.1	12%	9.2	12%	8.8	11%	10.5	13%
Other socially vulnerable groups	1.9	3%	1.9	3%	1.9	2%	1.9	2%	1.7	2%	1.6	2%	1.4	2%	1.4	2%
Sub-total	**35.6**	**48%**	**35.5**	**47%**	**34.3**	**45%**	**33.8**	**44%**	**39.6**	**51%**	**38.5**	**48%**	**38.2**	**48%**	**34.8**	**43%**
Social Security Organization																
Formal private sector and temporary civil servants	25.7	34%	26.0	34%	26.4	34%	26.5	34%	27.4	35%	27.9	35%	27.8	35%	28.7	35%
Self-employed	5.5	7%	7.7	10%	9.7	13%	11.1	14%	11.3	14%	12.2	15%	9.2	11%	1.4	2%
Non-wage earners	0.5	1%	0.5	1%	0.6	1%	0.7	1%	0.8	1%	0.8	1%	0.9	1%	2.7	3%
Other wage earners	0.8	1%	0.8	1%	0.8	1%	0.8	1%	0.8	1%	0.5	1%	3.5	4%	9.5	12%
Sub-total	**32.5**	**44%**	**35.0**	**46%**	**37.5**	**49%**	**39.1**	**50%**	**40.3**	**51%**	**41.4**	**52%**	**41.4**	**52%**	**42.4**	**52%**
Imam Khomeini Relief Foundation																
The poor	N/A		N/A		1.2	2%	N/A		N/A		N/A		N/A		N/A	
Armed Forces Medical Services Insurance Organization																
Service-men	N/A		N/A		4.8	6%	N/A		N/A		N/A		N/A		N/A	
Total covered	**68.0**	**91%**	**70.5**	**93%**	**77.9**	**102%**	**72.9**	**94%**	**79.9**	**102%**	**79.9**	**101%**	**79.6**	**99%**	**77.1**	**95%**
Total population	**74.6**		**75.5**		**76.5**		**77.4**		**78.4**		**79.4**		**80.3**		**81.2**	

Note: Total covered may exceed 100% due to duplicate coverage and double-counting.

FINANCIAL ASSESSMENT OF HEALTH INSURANCE FUNDS

Understanding of the financial situation of health insurance funds is critical to assessing the sustainability, efficiency and equity of the provision of coverage and related health benefits. This assessment is particularly important in the Islamic Republic of Iran in view of the major policy changes implemented as part of the HTP, which resulted in large increases in the membership of the public health insurance funds, increased tariffs for health services, additional benefits provided and increases in the costs borne by the public health insurance funds and by the government. In addition, these policy changes were implemented in the backdrop of an uncertain current and future fiscal environment with rising inflation and limited ability to further expand fiscal space for health *(14-16).* The analysis described here consists of a broad comparison of key financial and other performance data for the two main public health insurance funds (i.e. the IHIO and the SSO) to provide an initial snapshot of changes between 2010 and 2017 (Table 2.3). A more detailed and comprehensive actuarial analysis is strongly recommended to investigate the issues further, including examination of revenue sources, expenditures, arrears and reserves in order to understand the solvency and financial sustainability of these funds. This would be particularly useful given that the design of provider payments and benefit packages are still priorities on the reform agenda. A more detailed actuarial analysis will be useful to help cost health financing policy options and assure long-term financial sustainability and improved performance of the health system.

The various sources of revenue for the two main insurance funds should be analysed to understand the equity and the stability of the various revenue streams and complementarity in funding sources, whether from government revenues (general and earmarked taxes), contributions from members (both compulsory and voluntary prepayments), subsidies to support premiums, costs of services, pharmaceuticals or infrastructure, and/or transfers from the subsidy reform and from other social welfare organizations. Broadly speaking, tax financing is generally a more reliable stream of revenue, although it is still subject to governmental budget constraints. Given the uncertain economic outlook of the country, ensuring a steady stream of revenue for health is important, particularly in light of anecdotal reports that some sources of funds are being retained by the government, resulting in significant arears for the insurance funds. The value of payroll contributions will likely decrease, given the macro-fiscal environment, particularly as wages have been outpaced by inflation, which rose to 37.2% in 2019 *(15).* Moreover, the sanctions newly re-imposed by the United States and the instability of global oil markets are likely to adversely affect the Iranian economy in the short to medium term. Insurance contribution rates have changed little over time; for example, the current rates for the SSO have remained the same as that reported in 2008 *(11).* Unique to the county, insurance funds have also received funds since 2013 released as part of the targeted subsidy reform (i.e. some of the funds from the elimination of subsidies to the energy and food sectors were redirected to health). This source of revenue has, however, been reported to be decreasing in recent years as the government finds it difficult to sustain these funds *(17).*

Concern has been expressed about the sustainability of financing, particularly with the timing of policy changes implemented as part of the HTP *(9,16),* the cost drivers inherent in most health systems resulting from the demographic, epidemiological and nutrition transitions, the Baumol effect retarding productivity growth in labour-intensive industries and the availability of expensive new medical technologies. While HTP resulted in laudable increases in coverage, it shifted the financial risk from consumers to the health insurance funds through increases in tariffs and reductions in patient cost-sharing. These changes, combined with the provision of a generous package of benefits and current reliance on fee-for-service (FFS) payment mechanisms, have likely adversely affected the financial sustainability of both the IHIO and the SSO. Use of modern, patient-centred, integrated care performance systems is an important priority. In all financing reforms, a full understanding of the balance sheets of health insurance funds in terms of expenditures, revenues, reserves, arrears and other receivables is essential. For example, the IHIO is reported to have received funds from a bond issued by the government in 2016 to the amount of 77 071 billion rials (equivalent to 85% of its revenues that year) in lieu of certain payments owed to them, thus suggesting some disruption in funding with the government providing funds to the IHIO when it is in financial need.

Table 2.3 shows a comparison of key performance measures for the IHIO and the SSO for 2010 and 2017. The SSO spent nearly seven times more on health per capita than the IHIO in 2010 and nearly four times per capita in 2017. The higher expenditure by the SSO may reflect salary and/or capital expenses for SSO-owned health providers or facilities, while the IHIO figure may reflect supply-side subsidies to MoHME-affiliated clinics and hospitals. SSO revenues were similar to those of the IHIO, although it reported some funds as expected (i.e. not yet received). The IHIO received nearly three times more subsidies per capita than the SSO, reflecting the more vulnerable population groups it covers as compared to the SSO, whose members are mainly in richer quintiles. It thus also reflects the Iranian government's commitment to equity.

In regard to service utilization, members of the IHIO made half as many visits as SSO members to outpatient departments per person per year (5.1 and 10.3, respectively), which can be attributed to the presence of a referral system in rural areas covered by the IHIO and the fact that providers of PHC services are paid per capita for IHIO members and are largely reimbursed by FFS for SSO members (see Chapter 3). It is unlikely that the lower rate of visits to outpatient departments is due to inaccessibility of facilities in rural areas given the success of extending PHC services during the 1980s (see Chapter 5). The number (and cost) of inpatient admissions was similar for the two insurance funds, at 0.12, or 1 in 9 people admitted overnight. Inpatient admissions were similar for the two health insurance funds, although the cost per inpatient admission was slightly higher in the SSO.

TABLE 2.3:
KEY PERFORMANCE MEASURES FOR THE IHIO AND THE SSO, 2010 AND 2017 (IN CONSTANT 2010 RIALS)

Source: Authors' analysis of administrative data from the IHIO and the SSO

	2010		2017	
	IHIO	SSO	IHIO	SSO
Expenditure per capita	621,359	4,264,888	1,354,031	5,252,879
Revenue per capita (received)	531,295	3,938,943	1,410,265	4,445,743
Revenue per capita (received and expected)		5,117,695	-	6,906,590
Government subsidy per capita	181,366	70,084	185,944	69,966
Outpatient department (OPD) visits per person per year	4.3	11.2	5.1	10.3
Inpatient department (IPD) admissions per person per year	0.09	0.10	0.12	0.11
Cost per OPD	32,181	27,409	51,757	38,979
Cost per IPD	3,464,622	4,727,408	5,323,084	6,879,735

Note: Figures do not adjust for case mix utilization nor differences in risk across insurance pools

WAY FORWARD: ACHIEVEMENTS AND CHALLENGES

This chapter sought to analyse the evolution of public health insurance in the Islamic Republic of Iran by assessing how key design features of pooling arrangements contributed to achieving the system objectives of equity, financial protection, efficiency and sustainability. Noteworthy achievements include reaching a nearly universal level of coverage and weakening the link between contributions and entitlements by greater reliance on public financing. The challenges encountered were due to fragmentation, concern about sustainability and disparities across risk pools.

Similar to the health systems in many other countries, the health insurance arrangements in the Islamic Republic of Iran have developed over time with specific schemes established to incrementally cover different segments of the population. This has resulted in a fragmented health insurance system which limits risk-pooling, affecting equity and financial protection. It also likely contributes to higher administrative costs and other inefficiencies. Options for reducing fragmentation include the following:

- Maintain existing insurance arrangements, but undertake a functional merger by harmonizing policies on entitlements, contributions, benefits covered, cost-sharing, or contracting of providers to ensure coherence across the funds.
- Merge or ensure cross-subsidies across schemes within the IHIO and across schemes within the SSO.
- Merge state-owned insurance schemes (e.g. those operated by banks and by broadcasting and petroleum companies) and the IKRF under the IHIO, given these also tend to rely substantially on the government for funding.
- Consolidate all existing health insurance schemes to create a single national health insurance scheme.

Concern has been expressed about the sustainability of financing, particularly in view of recent policy changes and the country's uncertain macro-fiscal outlook. While there has been a laudable increase in coverage, the financial risk has shifted from consumers to health insurance funds after increases in tariffs and reductions in patient cost-sharing. These changes, combined with the provision of a generous package of benefits and current reliance on FFS payment mechanisms, have raised concern about the financial sustainability of funds. Options to strengthen the revenue base include the following:

- Revise the insurance contribution rates to better reflect actuarial soundness.
- Consider tiered rather than uniform contribution rates. This would result not only in collection of more contributions from those with greater ability-to-pay at the upper end of the income distribution but would also increase progressivity in financing as uniform rates do not account for the higher impact of payroll taxes on those with lower salaries.
- Better target receipt of subsidized premiums or improve their effectiveness by means-testing. For example, currently the rural rich and rural poor alike pay no premium.

Equity and financial protection remain key objectives and further progress could be made with options such as the following:

- Develop a risk-adjustment mechanism across all payers. Some regulatory framework and stewardship capacity would be required, but this would increase equity and spread risks better.
- Formally introduce cross-subsidization into a single pool at national level or at regional or provincial level, so that costs are shared equally.
- Adjust payments to insurance pools retrospectively on the basis of relative risks.
- Adjust premiums or payment rates by ability-to-pay or through income-related contributions, which could be paid into a risk equalization fund.

Addressing these challenges will require alignment with purchasing, service delivery and information management systems. In addition, they should be based on an examination of revenues sources, expenditures, arrears and reserves. Such evidence will be useful in costing health financing policy options and assure the long-term financial sustainability and performance of the health system.

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CHAPTER 3
Purchasing and provider payments

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KEY MESSAGES

The Islamic Republic of Iran has adopted some global good practices in purchasing and provider payments. For example, the country provides a comprehensive benefit package that is broadly uniform across its four main public health insurance funds, covering approximately 95% of the population. It has also established a single set of purchasing rules for the insurance funds with regard to patient cost-sharing, public provider tariffs and payment methods.

Nevertheless, the country's purchasing arrangements still have a way to go and more efforts are needed to include aspects of modern payment systems. Roles are still conflated, and the purchaser–provider split should be reviewed and further developed. Purchasing by insurance funds also needs to be better coordinated with supply-side subsidies, particularly from the Ministry of Health and Medical Education (MoHME) and the Social Security Organization (SSO).

The two main public health insurance funds, the SSO and the Iran Health Insurance Organization (IHIO), remain passive payers and not strategic purchasers. Neither appears to have the adequate authority or the means for more proactive engagement in making policy changes for the setting of provider tariffs or payment methods. They also have limited power in selectively contracting service providers.

While the country employs some payment methods that create positive incentives for efficiency (e.g. capitation payments for primary care services), the system still relies heavily on open-ended fee-for-service (FFS) payments for inpatient services. The country should accelerate its transition to bundled payment approaches with closed-ended budgets for hospital services, such as diagnosis-related groups (DRGs) with expenditure caps, which could be implemented initially in a budget-neutral way to avoid disruptions in service delivery.

There are multiple flows of funds to public and private providers from a range of sources (i.e. MoHME, IHIO, SSO, households) sometimes using different and uncoordinated payment methods (e.g. line item budget transfers, capitation, FFS, and out-of-pocket (OOP)). The architecture of payments should be harmonized such that the combination of methods minimizes the perverse incentives and maximizes the positive incentives of each method.

The benefit package is extensive but is not necessarily based on cost-effectiveness, population health needs, budget impact, financial protection or other criteria. In addition, its design has not always been accompanied by a systematic process based on standard criteria, robust data analysis, inclusive dialogue and transparent decision-making.

The country is currently developing a plan for strategic purchasing, and this should be embedded within an overall reform process. This would help to ensure alignment between purchasing policies and those related to revenue raising and pooling, as well as to the broader health system (e.g. inclusion of aspects of managed or integrated care models in service delivery, building more effective gatekeeping and referral systems and developing an interoperable health information system).

Greater engagement in strategic purchasing can lead to significant efficiency gains, such that the health system gets more value for the money spent. This is critical in the Islamic Republic of Iran as the generous benefit package and the recent extension of coverage to near universal levels have led to growing concern about the sustainability of financing the system. Moreover, the country faces a challenging macro-fiscal situation with uncertainties about the availability of future fiscal space for health and impending cost pressures given the country's demographic and epidemiological transitions.

INTRODUCTION

Purchasing of health services and goods is one of the three functions of a health financing system *(1,2).* It refers to the way in which funds are allocated to providers to obtain health services on behalf of a population. Purchasing is thus closely linked to the other financing functions concerned with the collection of revenues and the pooling of risks (see Chapter 2). The potential for strategic purchasing is increased by sufficient resources and by equitable and efficient risk-pooling of funds. Effective purchasing also requires close coordination with the broader health system, especially service delivery, the health workforce and health information systems. Despite its importance, little attention is paid to the purchasing function, and it has been noted to be the most neglected of the three health financing functions *(3).*

Purchasing can be carried out in a manner ranging from passive to strategic, depending on what tools and methods are employed and how they are designed. Generally, a passive approach is characterized by the allocation of resources based on historical patterns and payment for inputs of the production process (e.g. infrastructure, personnel), with no connection to performance. In contrast, a strategic approach is characterized by the allocation of resources according to outcomes (e.g. health or quality of care) by considering provider performance, population health needs, efficiency or other health system objectives. In accordance with global good practice for strategic purchasing, strong incentives can be created to improve system performance such as increasing allocative and technical efficiency in the use of resources, quality in service delivery, accountability to the population and equity in the distribution of resources. Strategic purchasing can therefore be a powerful lever to further facilitate progress towards sustainable universal health coverage (UHC).

The Islamic Republic of Iran has undertaken several reforms for the purchase of health services, but these faced challenges both in design and implementation. The main barriers were governance factors, such as the lack of well-defined roles and responsibilities and of strong collaboration among implementing institutions (see Chapter 5). Purchasing therefore remains a priority for reforms in the country. The purchasing function continues to be carried out passively. While primary care services are purchased using capitation methods, inpatient services are purchased predominantly using open-ended fee-for-service (FFS) payments. There are indications that this is driving the overprovision of services, resulting in escalating health expenditures. Pay-for-performance methods have been pilot-tested, but their design is not well-aligned with global good practice as a large proportion of bonuses are based on provider characteristics (e.g. speciality, level of education) or activity levels (e.g. hours worked) rather than on incentivizing cost-effectiveness or quality of care.

The Ministry of Health and Medical Education (MoHME) plays a major role as both a purchaser and a provider, subsidizing provider salaries and capital expenses and also delivering services to the majority of the population. Many other actors are also involved, including those in both the public and the private sectors. The payment system is complex, with multiple funding streams to public and private providers from a variety of sources using different methods (e.g. line item budget transfers, capitation, FFS, and out-of-pocket (OOP) payments) *(4).* As a result, strategically orienting the delivery of services, particularly influencing providers for more efficient use of inputs, remains difficult.

More attention should be paid to how resources are used to purchase services in the Iranian health system, as current practices have contributed to an escalation of costs and overspending against annual budgets. Between 2000 and 2016, the country's current health expenditure rose from 9.7 to 13.4 million rials per capita in constant 2000 rials *(5).* While increased expenditure reflects the government's laudable investment in the strengthening of its health system, particularly linked to its Health Transformation Plan (HTP) (see Chapter 5), sustaining this level of spending is a major concern (see Chapter 2). This is especially in view of the country's demographic and epidemiological transitions and its future fiscal situation *(6,7).* The significant gains in efficiency that could be made with more strategic purchasing and provider payment methods are thus of interest and can be seen as a key de facto source of untapped "revenue".

During the past 25 years, the government has implemented a number of initiatives to address challenges in purchasing policies and practices:

- **1994:** Legislation for the universal provision of a set of promotional and preventive health services in an essential benefit package
- **1995:** Establishment of the High Council for Health Insurance mandated to ensure universal access to health insurance with responsibility for developing health policies on population insurance coverage, medical tariffs, purchasing of health services and provider payment methods
- **1995:** Parliament approval of the hospital autonomy policy, which granted public hospitals the authority to generate revenue through fee-for-service payments
- **2005:** Split in purchaser and provider functions for primary health care services in rural areas across all provinces
- **2007:** Merger of benefit coverage policies into a unified package of services provided by all public insurers
- **2014:** Updating of the relative value units of health services to better reflect the cost of services provided, thereby regularizing physicians' payments and stemming the practice of demanding informal payments from patients
- **2014:** Pilot-testing the contracting out of primary health care services to private providers in urban areas in the two provinces of Fars and Mazandaran
- **2015:** Pilot-testing of a pay-for-performance programme in public hospitals
- **2017:** Parliament approval of a bill preventing physicians and medical specialists from engaging in dual practice (i.e. working both in the private and public sectors)

This overall aim of this chapter is to examine the purchasing and provider payment arrangements for health services in the Islamic Republic of Iran. Divided into three sections, the chapter focuses on the key policy questions: (i) who purchases, (ii) what is purchased and for whom and (iii) which providers are services purchased from and how are they paid. Current arrangements in the country are compared with global good practice (Box 3.1) to identify achievements and assess challenges present in the system. The analysis draws on evidence from government documents and published literature. The specific objectives of the chapter are:

- To examine institutional arrangements for purchasing, including identifying any governance challenges;
- To understand current benefit packages, including the definition of the entitlements and conditions for population access (i.e. cost-sharing and extra-billing) as well as any challenges in their design and implementation;
- To assess incentives in specific provider payment mechanisms and how they might interact with one another within the overall architecture of the country's payment system; and
- To examine alignment of the purchasing function with other financing functions related to revenue-raising and pooling as well as with broader system functions of service delivery and information management.

Box 3.1: Global good practices in purchasing and provider payments

Countries have adopted different purchasing and provider payment arrangements on their path to UHC, and there is no "one size fits all". Nevertheless, country experiences reveal common lessons, which form global good practices:

1. Establish a single payer (or a single set of payment rules) to increase purchasing power and contractual leverage over providers, to better influence provider and consumer behaviour and to reduce administrative expenses.
2. Create a level-playing field among all providers by applying the same payment method for public and private providers, such that services purchased for consumers are of the best quality and from the most efficient providers. The methods should account for both recurrent and capital costs. Standards of accountability (e.g. for quality of care, efficiency, transparency) should be applied to both equally, regardless of ownership.
3. Recognize that decisions about what to purchase and for whom are the outcome of a process that is both technical and political. The process should involve three activities: data analysis of information on population health and cost of services conducted in a scientifically robust manner and with no conflict of interest; dialogue with policy-makers to appraise the evidence in consultation with a diverse group of stakeholders (e.g. government, ministries, providers, insurance funds, and citizens) and transparent decision-making based on evidence and dialogue.
4. Define a benefit package informed by evidence and consideration of criteria such as the cost-effectiveness of the intervention, the health needs of the population, the preferences of the population, the impact on the budget and sustainability of the health financing system, financial hardship for individuals who access the services and other principles of equity and ethics.
5. Use payment methods that create incentives for outcomes, quality and efficiency. For example, global budgets, capitation or other bundled integrated care methods with expenditure caps, as opposed to fragmented and unconstrained FFS payment systems.
6. Harmonize flows of funds from multiple sources so that the combination of payment methods minimizes perverse incentives and maximizes the positive incentives of each method. For example, FFS payment combined with an expenditure cap will encourage provider productivity and minimize incentives for inflationary expenditure.
7. Design pay-for-performance bonuses based on the cost-effectiveness and quality (rather than quantity) of care by applying clinical process indicators, intermediate outputs and/or outcome measures. The methods should also form the basis for performance feedback to clinical teams and individual clinical managers.
8. Ensure alignment in the purchasing of health services with the other functions of the health financing system, such as matching with the level of resources available and greater pooling for financial leverage and economies of scale and scope.
9. Adopt the characteristics of modern integrated care, in which provider payments centred on the patient, are made to a coordinated network of providers and are based on quality and efficiency. These approaches thus instill responsibility and incentives for both cost and quality and further consider aspects of service delivery as the spectrum of services is coordinated along the continuum of care.
10. Strengthen monitoring to be systematic and independent. Conduct evaluations of the impact on cost, access and quality to ensure that system objectives are met. Strengthen an interoperable health management information system such that it links data on insurance membership, service use, clinical outcomes and financial activity.

Authors' adaptation *(8–11)*

WHO PURCHASES HEALTH SERVICES?

In the Islamic Republic of Iran, health services are purchased by a combination of public and private institutions. The main public purchasers are the MoHME and the four main public health insurance funds: the Iran Health Insurance Organization (IHIO), the Social Security Organization (SSO), the Armed Forces Medical Services Insurance Organization (AFMSIO) and the Imam Khomeini Relief Foundation (IKRF) (see Chapter 2). The MoHME purchases public health services directly and purchases personal health services indirectly through government subsidies for institutional capital expenses and for individual staff salaries in MoHME facilities; the health insurance funds purchase mainly personal health services. All the public institutions purchase mainly from public providers (including SSO-owned facilities) but also from contracted private providers. The services they purchase cover the vast majority (i.e. 95%) of the Iranian population. Private purchasers include private health insurance funds, which purchase services from the growing sector of private providers, mainly for specialty care for richer populations in urban areas. Consumers also purchase health services through private OOP payments (see Chapter 1). The purchasing landscape is therefore complex; the roles of each purchasing agent overlap, and responsibilities are not clearly delineated or sufficiently established. Various governance issues have emerged as a result.

The MoHME is the predominant public purchaser of health services in the country. It purchases services with government funds from various sources, including revenue from general taxation, an earmarked 1% from value-added-tax (VAT) and a percentage of revenues from a national subsidy reform in which revenues were redirected from the energy sector to the health sector. The MoHME is also a major provider of services, which are delivered through its network of 57 Provincial Medical Universities[1], comprising public hospitals and primary health care (PHC) facilities. There is thus long-standing integration of the purchasing and providing functions. Other ministries have or are still purchasing health services for the population (e.g. the Ministry of Cooperatives, Labour and Social Welfare, which purchased services for IHIO members when it was under its purview, and the Ministry of Defence, which purchases services for members of the AFMSIO).

The IHIO is also a purchaser of personal health services, predominantly for permanent civil servants, rural residents, the informal sector, the self-employed, and other socially vulnerable groups, who represented 43% of the population in 2017 (see Chapter 2). Reforms in 2005 sought to split the purchaser and provider functions of primary care services in rural areas *(12),* making the IHIO responsible for purchasing on a per capita basis based on contracts with family physicians (see Chapter 5). Since then, the role of the IHIO has grown significantly under the HTP, which mandated the IHIO to ensure universal coverage for all Iranians. The IHIO has thus became one of the major financiers responsible for paying for health services and is funded from a combination of member contributions, employer contributions and government subsidies, the latter representing approximately 60% of its revenue (see Chapter 2).

The SSO is another major purchaser of personal health services, covering the health needs of its members, who represented 52% of the population in 2017 and are mainly in the formal private sector but also in self-employment and the informal sector (see Chapter 2). The SSO purchases secondary and tertiary level outpatient and inpatient services using two approaches referred to as direct and indirect *(13).* In the direct approach, services and goods are purchased and provided directly to its members in SSO-owned clinics and hospitals, most of which are located in urban areas. In the indirect approach, health services and goods are purchased from public and private hospitals and clinics. In 2017, 40% of SSO financial resources for health was spent to purchase services directly and the remaining 60% indirectly (see Chapter 2).

In addition, private insurers purchase health services for their members that are complementary to the public health insurance benefit package. Up until the launch of the HTP in 2014, their role was reported to be increasing (see Chapter 2), particularly for outpatient care, specialist services and rehabilitative care. As a percentage of current health expenditure, domestic private health expenditure (net of OOP payments) made up 8.2% in 2010, increased to 10.4% in 2013 and then decreased to 6.6% in 2015 *(5).*

All these institutions are governed to a greater or lesser extent by the High Council for Health Insurance (HCHI), which was mandated by Parliament in 1994 to ensure universal access to health insurance. The HCHI is responsible for developing policies on population insurance coverage, medical tariffs, purchasing health services and provider payment methods. The decisions taken by the HCHI apply to all public insurers and providers, but their regulation remains unclear. The setting and regulation of medical tariffs for the private sector was led by the Iranian Medical Council until 2004 when, based on the fifth 5-year National Development Plan (NDP), authority was given to the HCHI. Responsibility for designing the benefit package was then given to the MoHME from the HCHI in 2017 following the sixth 5-year NDP, although the HCHI still plays an important coordination role.

The HCHI is currently chaired by the MoHME and is comprised of 11 other members, including the Minister of Finance; the Minister of Cooperatives, Labour and Social Welfare; the Vice-President for Budget and Planning; the President of Forensic Medicine; the managing directors of the IHIO, SSO, AFMSIO and IKRF; the Deputy for Social Welfare; a parliamentarian from the Health Committee (as an observer) and a parliamentarian from the Budget and Auditing Committee (as an observer). Although the secretariat of the HCHI was moved back and forth between the MoHME and the Ministry of Cooperative, Labour and Social Welfare, its mandate has generally remained the same.

According to global good practice, the decisions of policy-making bodies, such as the HCHI, should be guided by scientific analysis, inclusive consultation and transparent decision-making. This is, however, not the case and a tendency for the HCHI to make decisions without systematic reference to evidence has been noted by some *(14).* For example, decisions on the design of the benefit package have been suggested to be made by negotiation among interested parties, sometimes under the influence of political lobbying *(15).* Furthermore, the HCHI is a policy-making body and not well equipped to also function as a technical regulatory agency to enforce application of its policies.

Various attempts have been made during the past three decades to change the purchasing and provision of health services in the Islamic Republic of Iran (see Chapter 5). For example, the purchaser and provider relations for inpatient services was modified by the Universal Health Insurance Act approved in 1994, which led to the financial autonomy of public hospitals a year later *(16).* The Act granted public hospitals the authority to generate revenues, changing the payment mechanism from line-item budget transfers to FFS *(17,18).* Hospitals, however, reportedly faced serious financial challenges with difficulty in generating sufficient revenue. In 1996, Parliament thus revitalized an article whereby it reverted to covering hospital staff salaries using annual line-item budget transfers but leaving FFS still in place such that providers received funds from multiple payers *(17).*

In regard to primary care services, before 2005, the MoHME was the sole purchaser and provider of primary care services, notably through the publicly funded rural health network. In 2005, a purchaser–provider split was initiated when the IHIO (then known as the Medical Services Insurance Organization) was moved from the MoHME to the Ministry of Cooperative, Labour and Social Welfare (then the Ministry of Welfare and Social Security), establishing the institutional basis for the split *(12).* With this change, funds were no longer paid directly to the MoHME but through the national budget to the IHIO, and providers were no longer paid monthly fixed salaries but per capita through contracts with the IHIO. The aim of this reform was to ensure more efficient purchasing of primary care services, but the reform suffered from

[1] Provincial Medical Universities were created in 1994. They are responsible for medical education and research and for delivering health services in their catchment area. To meet these responsibilities, the Universities maintain and manage facilities near PHC networks and public hospitals. The PHC network delivers PHC services to all individuals in the catchment area, both rural and urban. Public hospitals provide acute curative care at secondary and tertiary levels.

tensions between purchasers and providers and a lack of support from health practitioners *(12).* No other attempts were made in this area until 2017, when the split was interrupted and the IHIO moved back to the MoHME.

ACHIEVEMENTS AND CHALLENGES

The Islamic Republic of Iran has taken some initiative to change purchasing arrangements to better reflect global good practice. First, the country has attempted to split the purchaser and provider functions in recognition of the important gains in doing so. Although the attempts were not all successful, important lessons have been learned. There is now renewed willingness and even a sense of urgency, given concern about escalating costs, to change the current passive and integrated arrangements.

Secondly, establishment of the HCHI to oversee all insurance funds and the authority to make policy decisions about purchasing was important. Clearly mandating one body to make key decisions to be followed by all public and private insurers and providers is critical for strategic purchasing because it helps to ensure coherent rules of engagement and assumption of responsibilities with clearer lines of accountability. The health system in the country thus has the basis of a single set of rules dictated by global good practice. Nevertheless, there is a lack of capacity to generate evidence as a basis for making policy decisions, and it is not clear how such policies are developed nor how these are enforced. It also appears that bureaucratic processes and inability to reconcile the different interests of its 12 members prevent the HCHI from operating to its full potential *(15).*

Two major challenges in regards to who purchases health services also merit attention. The first concerns the multiplicity of purchasers (e.g. MoHME, IHIO, SSO, AFMSIO, IKRF, and the private sector). The second concerns the integrated nature in which purchasing and provision of health services are carried out. Both raise governance issues.

The problem of multiple purchasers is somewhat attenuated by the single set of rules established by the HCHI. Unfortunately, the design, implementation and regulation of such policies is weak, and they should be more scientifically robust and better aligned with best practices. In addition, lack of clarity about the roles and responsibilities of each purchaser undermines their ability to negotiate contracts with providers and more efficiently purchase services.

The integrated nature of purchaser and provider functions is another issue. The MoHME and SSO are both purchasers and providers of health services, an arrangement which can result in poorer quality service provision and inefficiency in the system as cost pressures mount. This can arise due to a breakdown of accountability when the role of purchaser to act on behalf of the patient is weakened with political and budgetary pressure or pressure from providers.

While the appropriate degree of separation between purchasers and providers is difficult to determine and depends on the country context, what is important is that perverse incentives that can arise in an integrated approach are carefully managed. This can be done by appropriate accountability mechanisms ensuring that decisions are based on evidence and resources are allocated optimally and reflect the priorities of service users, thus building the population's trust *(19).* The accountability mechanisms could be based on an integrated care approach in which payments are made to a network of providers according to quality and efficiency criteria. Such networks of care further consider service delivery aspects as the spectrum of services is coordinated across the continuum of care.

WHAT IS PURCHASED AND FOR WHOM?

A benefit package is a set of health services that is guaranteed, either fully or partially, by public funding. The package can be thought of as both the entitlement (i.e. right) to the health services and the obligations (i.e. responsibilities, such as cost-sharing or referrals) to be met by the covered population group in order to access the benefits *(20).*

In the Islamic Republic of Iran, three health benefit packages are currently provided to the population through the public health system (Table 3.1). These differ, with some overlap, in what they cover and who they target. The packages are referred to as the essential benefit package, the health insurance benefit package and the targeted services package.

The essential benefit package comprises mainly promotion and preventive health services: vaccination for children and pregnant women, prenatal and postnatal care, monitoring the growth of children under 5 years, promotion of nutrition and breast-feeding, control of diarrhoeal diseases and acute respiratory infections, environmental health (water and sanitation), treatment and control of endemic diseases such as malaria, screening and surveillance of communicable diseases, and provision of basic curative services and school health promotion. These services were selected on the grounds of their importance for public health and their cost-effectiveness. Such services are purchased by the MoHME, predominantly from public providers but also from contracted private providers, using capitation methods and primarily relying on revenue from general taxation and oil revenues. Services are provided free of charge to the entire population, regardless of their ability-to-pay or membership to an insurance fund (i.e. there is thus no cost-sharing, and entitlement does not depend on premium contributions). The package is delivered through public primary health facilities, and delivery is subject to monitoring with regard to the quality of service, volume of services and the health status of the covered population.

The health insurance benefit package is mandated by the Universal Health Insurance Act and covers emergency and curative care, including general outpatient and inpatient services and generic medicines. The package was formed in 2007 after a merger of benefit coverage policies with the objective of providing the broadest set of services across all the insurance funds, although with some exclusions (e.g. cosmetic surgery, advanced reproductive therapy and most dental services). Services are purchased by the four main public health insurance funds and provided to all registered members, covering approximately 95% of the population. The package is funded by member premiums, employer contributions, charitable contributions, and government subsidies. Co-insurance to access these benefits applies, with patients covering 10% of inpatient services and 30% of outpatient services. Extra-billing is allowed if an IHIO or SSO member chooses to access care outside the public or SSO provider. In such cases, the individual is additionally responsible to pay OOP the higher private sector fee, i.e. the difference between the established private tariff and public tariff if care is accessed from contracted private providers and the full private tariff if care is accessed from non-contracted private providers. Providers of these services are paid predominantly by FFS, and 90 of the most frequent surgical services are reimbursed in the form of case-based payments.

There is also an extended version of the health insurance benefit package which includes additional maternal and child health services and interventions for noncommunicable diseases. This package is purchased by the MoHME and the IHIO for people in rural areas[2] who are members of a public health insurance fund. These services are funded directly from the government budget and are accessible only from public service providers at primary care level or by referral. No co-payments are applied for services provided at primary level; however, patients are responsible for 30% of the cost of outpatient services and 10% of inpatient services at secondary and tertiary levels. Capitation payment is used for services provided at primary level and FFS for those provided at secondary and tertiary levels.

[2] Including small towns in deprived areas and informal settlements.

TABLE 3.1:
PUBLIC BENEFIT PACKAGES

	Essential benefit package	Health insurance benefit package	Targeted services benefit package
Beneficiaries	All population groups	Population covered by any of the four main public health insurance funds	Population needing treatment for diseases that are rare or associated with catastrophic costs
Services	Promotional and preventive public health services	Emergency and curative personal health services	Services for treating rare or costly diseases
Motivation for inclusion	Public health concerns and cost-effectiveness	Broadest coverage of services across all public health insurance funds	Rare or costly diseases
Funding source	Government (primarily from general taxation and oil revenues)	Member premiums, employer contributions and the government (primarily from general taxation and oil revenues)	Government (primarily from general taxation and targeted subsidies)
Provider payment method	Capitation	FFS for most services and case-based for 90 surgical services	Line-item budget transfer
Patient cost-sharing*	No co-insurance Extra-billing if outside network	Co-insurance of 10% for inpatient services and 30% for outpatient services	No copayment in most cases
Conditions of access	Accessible only from public primary care facilities or contracted private providers	Accessible only from public facilities, SSO-owned facilities or contracted private providers	Accessible only from public facilities or contracted private providers

* Rates applicable if accessed from a public provider; extra-billing amounting to the difference between the private and public tariff is applied if accessed from contracted private providers; the full private tariff is applied if accessed from non-contracted private providers.

Finally, there is also the targeted services benefit package which includes treatments for rare diseases and/or those associated with catastrophic costs (e.g. cancer, multiple sclerosis, haemophilia, thalassaemia, multiple sclerosis, chronic renal failure and kidney transplants). These services are purchased by the MoHME from public and contracted private providers and funded through the government budget. In most cases, patients pay no fee for these services, and providers are paid based on line-item budgets.

DESIGN OF BENEFIT PACKAGES

Decisions on what to purchase and for whom are reached through a process that is both technical and political. The decisions that need to be made include not only which services to include in the package but also for which population groups and whether some (e.g. the poor or vulnerable) are to be subsidized, the conditions to be applied (e.g. cost-sharing, exemptions, referrals, extra-billing) in order to ration use, and how providers should be paid.

Key steps in the process for designing a package are: identifying the objectives in its provision (e.g. to improve efficiency with a cost-effective mix of services or to improve equity by harmonizing benefits); analysing the policy implications for health financing and service delivery to ensure alignment with a sustainable level of funds and adequate

infrastructure and personnel for provision of the package; institutionalizing a robust approach for the prioritization of health services, determining the feasibility of financing the package and monitoring its implementation.

Global good practice underlines that packages be defined on the basis of evidence and consider criteria such as the cost-effectiveness of interventions, the health needs and preferences of the population, the impact on the budget and the sustainability of the health financing system, financial protection, and other principles of equity and ethics *(20).* The process for designing a package should involve three key activities: data analysis of population health and costs of services conducted in a scientifically robust manner with no conflict of interest; dialogue with policy-makers to appraise the evidence in consultation with a diverse group of stakeholders (e.g. government, ministries, providers, insurance funds, and citizens) and transparent decision-making based on evidence and dialogue.

In the Islamic Republic of Iran, definition of the first health insurance benefit package in 2007 was not based systematically on evidence but was a simple merger of all services included across the various insurance funds. This resulted in a generous package of services, which has continued to expand over time in the number of services covered *(14).* As the package is not based on evidence, it does not necessarily represent the best use of resources to meet the health needs of the population and actually excludes some preventive and promotion services aside from those purchased and provided by the MoHME in the essential benefit package.

The packages should be reviewed and updated to ensure the continued relevance of interventions and the addition of new ones. The review should also seek to address the significant fragmentation given multiple payment methods and flows of funds to providers. Moreover, the cost of the package must be affordable and sustainable. The revision of the package should also account for changes in the disease burden, cost-effectiveness and advances in technology, pharmaceuticals and equipment, while considering fiscal realities and resource constraints. The process for such a review is currently being discussed by the MoHME.

Since 2017, based on the fifth 5-year NDP, the responsibility for defining the benefit packages has shifted from the HCHI and now lies with the MoHME. Requests for additions to the packages are received by the MoHME (as HCHI chair), which then shares them with the other 11 members of the HCHI. The relevant ministerial departments then estimate unit costs and check service delivery standards. If the request involves a medicine or other consumable, a health technology assessment is undertaken, although such assessments are not institutionalized and have only been performed for approximately 100 new technologies. In general, the following criteria are considered important: population health needs, cost–effectiveness, affordability for the system, financial protection and other considerations of equity and ethics (e.g. access to services by poor or vulnerable populations). These criteria, however, are not always systematically applied when considering whether to include an intervention in the benefit package *(14).* The HCHI also estimates tariffs (Box 3.2) and the impact on the budget for inclusion[3]. The evidence is then reviewed involving all HCHI members, physicians and other experts, with decisions ultimately approved by the Cabinet of Iran.

Despite the proposed process, its implementation is not followed systematically, and the required supporting evidence is often lacking. Decisions tend to rely on ad-hoc piecemeal analyses, and there is anecdotal evidence of political lobbying that influences negotiations *(14).* In some cases, vested interests have skewed debates, such as when a particular group is the provider of a service and thus stands to benefit from its inclusion *(21).* Insurance funds have also voiced concern that the benefits should better match the available resources, but they appear unable to exert authority and tend to follow the policies of the MoHME *(22).*

[3] Except those for medicines and medical equipment, which are determined by a separate committee.

Box 3.2: Setting tariffs for health services

In the Islamic Republic of Iran, tariffs to cover the cost of provision of health services are based on relative value units (RVUs), which are used to set prices for both public and private providers. The Iranian RVUs were derived from the US Medicare system and adapted to comprise two components, referred to as the professional component (physician time, skill, training) and the technical component (expenses for equipment, supplies, etc.). RVUs were introduced in 1985 and remained unchanged for approximately 30 years, until 2014, when the fifth 5-year NDP mandated the HCHI to undertake a comprehensive review of the RVUs. Consultations between the government, the insurance funds and the professional community resulted in a complete revision in which RVUs increased, on average, by 47%, with the professional component by 120%. The intent of the increase was to reflect relative weights according to current market prices. The revisions also sought to reduce inequality in earnings among medical practitioners in order to attract students in fields such as infectious diseases, internal medicine and paediatrics. It also sought to reduce informal payments, which were requested by practitioners partly because they perceived themselves to be underpaid.

In general, the revision of RVUs has been well-received by medical specialists working in public hospitals, although some have expressed concern that certain RVUs do not adequately reflect levels of expertise, time and effort *(23)*. Broader concern has been expressed by the insurance funds, which have a significantly higher financial burden due to the increased RVUs and because related tariff revisions were not implemented in a "budget neutral" manner, such that total health expenditure has escalated. In 2014, when the RVUs were changed, some hospitals reported that the average cost of patient bills rose by approximately 60% *(24)*. At the same time, a decrease in the patient co-payment rate from 10% of the actual cost of services plus the differences between the actual cost and the public tariff to 10% of the public tariff left third-party purchasers to absorb a far greater proportion of the costs, increasing concern about their financial sustainability (see Chapter 2).

ACHIEVEMENTS AND CHALLENGES

The Islamic Republic of Iran is to be lauded for providing a uniform and comprehensive benefit package from the four main public health insurance funds, covering approximately 95% of the population. Both the harmonized nature and the level of coverage reflect the Iranian government's commitment to ensuring equitable access to its population, and the country is one of the few emerging market countries that has more or less achieved UHC. As the package was already very generous, however, the increase in insurance coverage to near universal levels under the recent HTP has resulted in significant cost pressures. This pressure is likely to be exacerbated by the country's demographic and epidemiological transition and potentially limited future fiscal space, raising questions about the financial sustainability of the health sector.

The process for designing benefit packages in the country also faces a number of challenges. For example, while the groundwork for a health technology assessment has been done, this is not yet fully institutionalized and the capacity needs to be strengthened. Another challenge is the lack of required evidence itself and lack of its systematic consideration in the decision-making process. Health needs assessments are not done regularly, and important costing information is not readily available. There is thus an overall need to strengthen a process for data analysis, dialogue and decision-making in order to better support the definition of the benefit package and choices related to population entitlements, responsibilities for cost-sharing and other conditions of access. The HCHI is currently working on developing a more systematic and evidence-based process for making decisions on how to define the benefit packages in the country.

WHO ARE THE PROVIDERS AND HOW ARE THEY PAID?

The main provider of health services in the Islamic Republic of Iran is the MoHME, which serves the vast majority of the Iranian population. The role of private sector providers is also growing, and they generally serve richer populations in urban areas and represented 21% of the health workforce and 12% of hospital beds in 2016 *(25,26).* In addition, not-for-profit providers and quasi-governmental charitable health providers serve mainly refugees and other vulnerable populations. The main public health insurance funds contract public sector providers, and sometimes also contract private providers, to provide the essential and health insurance benefit packages. Private insurance funds contract with private providers for services that are complementary to the public benefit packages. Payments for health services are made to institutional and individual health providers (i.e. facilities and health workers) to cover salaries, capital expenses, equipment and, of course, services. Both the payment methods used and their inherent incentives should be considered.

The main providers of health services at primary care level are *behvarzes* (i.e. trained community health officers), health experts (i.e. health workers with at least 2.5 years of university education working as midwives, nurses and environmental health specialists) and family physicians who work in health houses in rural areas, health posts in urban areas or community health centres in both rural and urban areas *(27).* At the primary care level, individual providers are paid a monthly salary from the MoHME's budget, and institutional providers are paid by a combination of methods, with capitation predominating.

Capitation is often used for controlling escalating costs as it creates an incentive for providers to improve efficiency in the input mix and to modify the output mix toward less expensive health promotion and preventive services. However, as the financial risk is borne by the provider, capitation can result in under-provision of services, more unnecessary referrals to costlier levels of the delivery system and "cherry-picking" or the enrolment of healthier individuals. The extent to which such problems arise depends on whether the provider is at risk for only individual primary care services and/or for unnecessary diagnostic tests or for hospital referrals. To mitigate perverse incentives, global good practice suggests open enrolment, development of clear treatment and referral guidelines and monitoring and regulating their implementation. Competition, whereby patients choose their provider, can also improve the quality of services, although risk selection from both the consumer and the provider must be minimized.

The main providers at secondary and tertiary care levels are midwives, nurses, laboratory technicians, paramedics, pharmacists, physician assistants, physicians, and other medical specialists. At secondary level, these providers work in district health networks comprised of health centres, public hospitals and specialized polyclinics. At tertiary level, providers work in specialty hospitals, mainly in large cities. Payments are made by line-item budget transfers from the Budget and Planning Organization to Provincial Medical Universities, primarily to cover salaries. Services are purchased from public providers (or contracted private providers) by the health insurance funds using case-based payments for 90 high-prevalence surgical procedures and FFS for others. In addition, per diem payments are also used to cover hoteling costs. In the case of the SSO, it pays the salaries of its workers by global budget transfers to the hospitals it owns and purchases services by FFS for public and private hospitals and clinics in its network.

FFS is a relevant payment method when the intention is to increase provider productivity or the supply of services. As providers are paid for each service delivered, FFS creates an incentive to oversupply, leading to inefficiency in the system. In contrast, case-based payments are a useful method for improving efficiency as they are made for a bundle of services and to a team of providers in a hospital. This method creates incentives to reduce inputs per case and to reduce the length of hospital stays. Finally, line-item budgets can create incentives to increase inputs, undersupply services, increase unnecessary referrals and/or spend the full budget, with little incentive or flexibility to combine inputs more efficiently.

The MoHME plays an important role and is responsible for the supply-side of the delivery system. However, it is still not clear how incentives from supply-side subsidies to public provider institutions for capital costs and other inputs and to individual public providers for salaries, interact with health insurance payments and with private providers. An analysis should be conducted to determine whether they collectively provide a coherent and consistent incentive for providers. It is likely that some perverse incentives are created, partly because public sector providers are salaried and thus have less incentive to be cost-accountable, and partly because supply-side subsidies interact with demand-side financing to increase consumption to inefficient levels. Effective coordination of incentives created by supply-side subsidies and those created by demand-side payment methods and an understanding of the extent to which the main public health insurance funds can act independently, including to leverage the private sector, is needed.

The role of private providers is growing in the country. Private providers are more frequently contracted by the public health insurance funds, and the role of non-contracted providers is also increasing. While primary care services in rural areas are provided mainly by the public sector, private providers are active in urban areas, particularly in outpatient settings for diagnostics, specialist services and rehabilitative care. Private providers also rely on FFS. An area under discussion is dual practice, which is common in the country and has raised a number of concerns, although these have been recently addressed by the government (Box 3.3).

Box 3.3: Dual practice

In January 2017, the Iranian Parliament passed a bill that prohibits physicians and medical specialists from working in both the private and the public sector at the same time *(28).* The legislation was designed to address concern that those engaged in dual practice tend to be less productive, present and efficient, subsequently reducing the quality of health services in the public sector and compromising equity in access and efficiency. Practitioners engaged in dual practice tended to refer clients to their private practice as they earn more in this setting. Private sector tariffs, while set and regulated by the HCHI, are approximately 4.2 times higher than those in the public sector. Patients can self-refer themselves to these providers but are then billed extra, paying OOP for this excess. Tariffs in the Islamic Republic of Iran are composed of two parts – a professional component and a technical component. According to the law, the professional component of the tariff should be the same in the public and private sectors, such that any difference is due only to the technical component. The MoHME has attempted to incentivize physicians to work full-time in the public sector by more than doubling the technical component of tariffs paid by health insurance funds to these individuals. Despite these measures, the income of those working in the private sector is still significantly higher than those in the public sector such that there is a large financial incentive for physicians to work in private sector.

Table 3.2 summarizes the methods used in the Islamic Republic of Iran to pay individual and institutional providers by service provider level and in both public and private settings. Providers are paid using a combination of six methods. It is clear the provider payment system in the country is complex and fragmented, such that it is difficult to influence providers to efficiently deliver needed services of high-quality.

TABLE 3.2:
PROVIDER PAYMENT MECHANISMS

Service provider level	Setting of provision	Mode of provision	Payment mechanism
Public sector			
Providers of primary health services (e.g. *behvarzes*, family physicians)	Health houses, health posts and community health centres	Outpatient	• Line-item budget to cover salaries of personnel and capital expenses (from Treasury to MoHME to Provincial Medical Universities) • Capitation in rural and urban areas with less than 20 000 people (from IHIO) • Case-based payment for every visit (from IHIO and SSO) • FFS (from IHIO and SSO)
Providers of secondary and tertiary services (e.g. nurses, physicians, medical specialists)	Individual provider	Outpatient	• Line-item budget transfers to cover salaries (from MoHME to Provincial Medical Universities) • Pay-for-performance bonus (from hospital income) • FFS (from IHIO and SSO) • Case-based payment for every visit (from IHIO and SSO)
	Institutional provider	Inpatient	• Line-item budget to cover salaries (from MoHME) • Case-based payment for 90 common procedures (from IHIO) • FFS (from IHIO and SSO) • Per diem to cover hoteling costs (from IHIO and SSO)
Private sector			
Providers of primary health services	Clinics	Outpatient	• FFS • Case-based payment for every visit
Providers of secondary and tertiary services	Hospitals	Inpatient	• FFS • Per diem to cover hoteling costs

Each payment method creates certain incentives, which interact with one another in the overall architecture of the payment system *(9,29).* For example, FFS payments create an incentive for providers to over-supply services and is in contrast to fixed line-item or global budgets, which incentivize providers to under-provide. The final effect therefore depends on the interaction of these often competing incentives for providers. There is no one "right" method. Each payment method has positive and negative effects on costs, access and quality. A system often needs to employ several methods to accentuate the positive and minimize the negative results. An optimal combination of payment methods, in the context of modern integrated care approaches, would help to attain the objectives of efficiency and quality.

FFS payments are currently the dominant form of payment in the country. While the SSO budgets for the services provided in its hospitals, it relies entirely on FFS for contracted providers. While the IHIO uses case-based payment for approximately 40% of all payments, it relies on FFS for the remainder. Neither is subject to volume or cost control. Such payment methods have placed the financial risk with the insurance funds, which has led to reported deficits (see Chapter 2).

In 2015, the country pilot-tested a pay-for-performance programme in public hospitals to improve provider motivation and productivity as well as quality of care and patient satisfaction. The performance of physicians is evaluated every month based on information such as attendance (i.e. working during regular hours, on-call and overtime), participation in hospital committees, patient waiting time and patient satisfaction. Other performance criteria include affiliation to a specialty group, years of work experience and academic degrees. Clinical outcomes and quality of care are not considered. Evaluation of physicians' performance has been neglected. Most physicians simply receive the highest score, which can increase their income by 25%. A large proportion of the performance payment seem to be based on physician characteristics rather than clinical performance given there is no real consideration of clinical outcomes or quality of care.

Global good practice suggests that in order for pay-for-performance to be a useful tool for strategic purchasing, payments should be made according to quality of care, indicated by clinical processes or intermediate outcome measures. It can thus also form the basis for performance feedback to clinical teams and clinical managers.

A basic tenet of all payment systems deals with the transfer of risk and who bears the financial risk. Determining the distribution of financial risks among insurers, consumers and providers is difficult, as it depends on payment methods and rules. With FFS, the payer (and the consumer, if extra-billing is allowed) is most at risk and the provider the least. With capitation, the payer is least at risk and the provider the most. Payments made per episode as bundled payments involve more balanced risk-sharing between the payer and provider *(30).* How risk is shared also depends on three other factors: the unit of payment, the level of payment and consumer policies. Financial risk varies if the unit of payment is for an individual service, per visit, per day, per admission, per episode of illness, per person for a fixed period of time, per provider for a fixed period of time, or whether based on results. The financial risk is also influenced by the level of payment, which may be negotiated, based on competitive bidding or include bonuses for performance. Finally, consumer policies for cost-sharing, extra-billing, informal payments and conditions of access, would all have an effect on the financial risk faced by consumers.

Contractual arrangements in the country are challenged by the integration of purchasers and providers, which limits the space for designing effective contracts. However, recent initiatives have been taken to improve effectiveness. For example, the contracting out of primary care services to private providers is being pilot-tested in the two provinces of Fars and Mazandaran, where family physicians are evaluated by their respective Provincial Medical Universities and must meet certain standards. For hospital services, contracting is concluded with providers who have met minimum accreditation requirements, and hospitals that rank higher are rewarded. Other providers of health services in

outpatient and allied medicines (e.g. imaging, laboratory, diagnostics) are not ranked, and purchasing contracts are concluded in a simplistic manner and appear to preclude selective contracting.

ACHIEVEMENTS AND CHALLENGES

The MoHME is committed to reforming provider payment methods, recognizing that a major challenge to system performance is the fragmentation of the payment system due to both multiple sources of funding and multiple payment methods being used. The current reliance on open-ended FFS payments presents a major challenge, acting as a powerful incentive for overtreatment, driving up costs and resulting in inefficiency in the system. The situation is compounded by the design of the pay-for-performance programme as, at present, a large proportion of bonuses are simply based on the number of hours worked or the professional or educational level of clinicians and not on the quality of care *(31)*. The unrestricted nature of payments to providers threaten the financial sustainability of the system.

The MoHME is therefore setting an agenda to reform provider payments. This notably includes transitioning hospital payments from open-ended FFS to closed-ended diagnosis-related groups (DRGs). Several initiatives are already under way to prepare stakeholders for this transition: policy-makers and practitioners are being trained in use of DRGs, hospitals have adopted the International Classification of Diseases (10th revision) coding system, the software for assigning DRGs based on the ICD has been prepared and the staff who will run the system are being trained. The bundling of services is a good first step towards efficiency gains. The country could go further by adopting the principles of modern integrated care models, in which payments are centred on the patient and based on measures of outcome, quality, efficiency, and patient satisfaction. As payments are made to networks of providers, there is also a strong incentive to integrate care across all levels. Reducing fragmentation in the current health insurance system and careful coordination of payment methods among the MoHME and public and private insurers will be a necessary condition for such reforms.

WAY FORWARD: POLICY OPTIONS

This chapter has sought to analyse the extent to which the purchasing of health services has been done strategically in the Islamic Republic of Iran. To date, purchasing has tended to be passive with a strong reliance on FFS and without systematic consideration of population health needs, provider performance or system objectives of efficiency, equity or responsiveness. This occurs within a highly fragmented system with multiple funding flows from different purchasers to providers. These have limited the health system from exercising its purchasing power, maintaining financial and contractual leverage over providers and making progress towards efficiency and sustainability.

Passive engagement is partly due to the multiple funding flows and overlapping purchaser and provider functions, which limit effective coordination of supply-side and demand-side payment incentives and the extent to which the main public health insurance funds can act independently, including to leverage the private sector. The IHIO and the SSO are currently passive third-party payers, with neither having the adequate authority nor adequate means to manage and direct resources to providers for a prioritized set of services for the population. Stakeholder participation is not well-aligned with strategic objectives, and administrative and transactional costs are higher than necessary. The supply-side subsidies from the MoHME and SSO preclude coordinated and efficient impact on the delivery system. These difficulties have been recognized, and policy discussions are identifying ways to address them to make further progress towards sustainable financing for UHC founded on the concept of “more health for the money”.

For purchasing to be more effective, efforts are required in four areas: governance, design of benefits, provider payments and contracts, and alignment with the broader health system (e.g. financing, service delivery and information management).

GOVERNANCE

One of the biggest constraints to strategic purchasing is lack of clear authority and distinct roles and responsibilities in the health sector. In the Islamic Republic of Iran, there is a conflation of roles in the purchasing and provision of health services with significant overlap among the MoHME, IHIO and SSO. The unclear boundaries between functions and among institutions hamper the ability to engage effectively and blur lines of accountability. Until now, stewardship of the purchasing function has been focused on the question of “who is the oversight body?” (i.e. HCHI) to set policies, and less attention has been paid to the broader question of “who should and can do what?”.

Furthermore, the health insurance funds lack real authority to contribute to policy decisions on how to use resources to purchase health services and pay providers. As members of the HCHI, they can comment on tariffs and the list of services in the benefit packages, but the decisions are often influenced by political lobbying or follow the agenda of the MoHME *(4,14)*. The health insurance funds do not have adequate authority or mechanisms to design and regulate policies. In addition, they have limited authority to selectively contract service providers, a necessary condition for modern managed or integrated care systems. Thus, while there are mandated institutions, their roles and responsibilities are not clearly defined, nor do they have the authority to operate to their full potential.

Policy options:

- Strengthen the split in the purchasing and providing functions in order to improve the efficiency, effectiveness and quality of care. The MoHME should focus on policy-making, regulation and public finance allocation. Consider gradually redirecting supply-side subsidies based on inputs to demand-side subsides based on outputs or outcomes, thus “following the patient”. This could be done in phases, or subsidies related to the salaries of health workers could be separated from capital expenses. Insurance funds should have the mandate, adequate authority and sufficient capacity to purchase services strategically. Providers should be autonomous and focus on ensuring that delivery of the spectrum of services is coordinated along the continuum of care.

- Develop a clear plan to improve and promote strategic purchasing in the health system. This plan should identify concrete actions such as reviewing the multiple benefit packages, reducing payment fragmentation, pilot-testing DRGs and strengthening the referral system and extra-billing policies. The plan should be embedded within an overall reform process and clearly define distinct roles for each stakeholder and coordination mechanisms. Procedures and policies to empower health insurance funds to conduct strategic purchasing and set payment methods should be proposed. Decision-making should be inclusive and transparent and informed by scientifically robust data analysis.
- Build technical and managerial capacity to strengthen strategic purchasing. The capacity-building agenda should cover skills in various areas, such as health financing policy analysis, actuarial analysis and information management.

DESIGN OF BENEFITS

The commitment of the Islamic Republic of Iran to equity is reflected in the fact that the package of health services is the same across all the public health insurance funds. In addition, the breadth of the packages also reflects the country's commitment to health. There are, however, long-standing challenges in its design that are both technical and political. There are issues of having two other different packages of benefits with different payment and delivery modalities. As the essential benefit package is universal and the health insurance benefit package is provided to 95% of the population, merging the two might be efficient. In addition, the current benefit packages were not systematically designed based on an assessment of population health needs, cost-effectiveness, consumer preferences or other criteria, nor do they reflect the current fiscal reality. They have not undergone major revisions and have largely only grown over time. The packages should be reviewed according to an institutionalized scientific priority-setting process, which includes data collection and their robust analysis, dialogue that objectively appraises the evidence in an inclusive manner involving a broad range of stakeholders and decisions made in a transparent and accountable manner.

Policy options:

- Institutionalize a systematic process for designing benefit packages that includes robust data analysis, inclusive dialogue and transparent decision-making in which the HCHI should play an important role as the main coordinating body.
- Collect evidence to review and revise the priority of services in the packages according to the cost-effectiveness of interventions and other criteria.
- Cost the packages on the basis of actuarial analysis and realistic estimates of supply and demand. Assess the impact of current and alternative packages on budgets to assess their financial sustainability.

PROVIDER PAYMENTS AND CONTRACTS

The payment system in the Islamic Republic of Iran is complex and the nature of contracting with providers does not adequately account for the price, volume or quality of provision.

The payment methods currently used have created perverse incentives for providers, notably encouraging over-provision of services, escalating costs and deepening insurance fund deficits. The payment system must therefore be revised to balance financial risks between providers and purchasers and to introduce payment mechanisms that better incentivize efficiency, equity in access, consumer satisfaction and quality of service. Multiple funding flows send mixed signals to providers. These signals should be calibrated and combined to harmonize incentives. Allocation of resources to purchase services should ideally be prospective, bundled and capped; the methods used to pay providers should create incentives to holistically address inefficiency in the system, such as those created by capitation and DRGs with expenditure caps. Financing reforms should address both supply-side and demand-side subsidies and should ideally reflect and support modern integrated care approaches, with payment methods that are centred on the patient and encourage coordination, quality, access, and efficiency.

Primary care providers are already reimbursed per capita in a relatively simple approach based on population numbers. Adjustments for age or gender, as proxies for health needs, would improve equity and efficiency in resource allocation. With strengthening of the referral system, potential perverse incentives of capitation payments should be closely monitored.

DRGs are currently being introduced to improve hospital payments and require the development of a system-wide uniform claims mechanism based on a patient episode of care with documentation of clinical data (e.g. diagnoses, procedures, age, gender) and financial data. As alterations in the flow of funds through the system will essentially change who gets what, it is important to create a process that allows stakeholders to discuss and be involved in the process of change. Change can be effectuated in a budget-neutral approach, in which the overall amount of funding stays the same while its composition gradually alters. To control costs effectively in the long term, DRGs should be combined with expenditure caps.

Contracting of providers can be strengthened by incorporating into the selection process an assessment of provider performance, compliance with clinical practice guidelines and quality of services delivered. Providers should have the autonomy and flexibility to respond to incentives (e.g. to reallocate funds, mix inputs, retain surpluses). Finally, a level playing field should be established among public providers and between public and private providers, such that providers should be paid the same tariff for the equivalent service. This will necessitate dealing with supply-side subsidies for both capital and recurrent costs.

Policy options:

- Optimize the mix of payment methods used by the MoHME and insurance funds, as multiple funding flows and payment methods send varying signals to providers and decreases the capacity of the MoHME and health insurers to negotiate "more health for the money" and to create stronger incentives for reaching system objectives of efficiency and quality.
- Enable the IHIO and the SSO to become strategic purchasers of health services with the authority to selectively contract with providers, to set conditions of payment and to enforce no extra-billing.
- Review the tariff schedules for both public and private providers in order to equalize them on the principle of "equal pay for equal performance".
- Revise how resources are allocated to purchase services so that it is prospective with hard caps, e.g. closed-ended DRG payments for providers of inpatient services, to address inefficiency in the system.

ALIGNMENT WITH THE BROADER HEALTH SYSTEM

The purchasing function is closely linked to revenue raising and pooling in the financing system. In addition, purchasing and provider payment arrangements should also be aligned with policy objectives for service delivery, the health workforce and health information systems.

Benefit entitlements and purchasing arrangements should be aligned with the level of resources available in order to realize and sustain population entitlements to services. Neglecting resource constraints is likely to result in an unfunded mandate or an empty declaration from the government, which will undermine transparency and confidence in the health system. The affordability of the benefit package is a key issue, and assessment of the budgetary impact of revisions is essential. The sharp increase in health expenditures registered in recent years in the Islamic Republic of Iran partly reflects the government's commitment to extending population coverage but

also reflects purchasing and payment arrangements, with uncapped FFS payments one of the main drivers of cost inflation. In the medium to long-term, the demographic and epidemiological transitions in the country will exert strong cost pressures on the system. Public financial management should also be addressed as strategic purchasing requires predictable and realistic budgets, timely disbursements of funds, flexibility in budget formulation, flexibility in allocation of funds to mix inputs and autonomy for providers to respond to incentives.

The potential for strategic purchasing in the Islamic Republic of Iran could also be strengthened by addressing the fragmented health insurance landscape as it prevents the greater pooling of resources and thus financial and contractual leverage. Reducing fragmentation will not necessarily entail a structural merger of the IHIO and the SSO into a single purchaser, which is the subject of ongoing debates and may not be resolved *(32,33).* Nevertheless, some pooling of the schemes within each main insurance fund would appear to be feasible and would offer a number of benefits, including increasing purchasing power and a better balance of the distribution of financial risk. In addition, further functional merger among the main public health insurance funds, in which insurance policies are harmonized can build off of efforts already made to ensure a common benefit package, co-payment rates and tariffs. Even greater coherence in purchasing and provider payment methods should be pursued.

Policy options:

- Assess budgetary implications of the packages in the context of the fiscal reality of the country in order to ensure the necessary resources to fund and sustain population entitlements to services.
- Move towards a greater functional merger among the main public health insurance funds whereby insurance policies on purchasing and provider payments are further harmonized. This can build off of efforts already made to ensure coherence of insurance policies in regard a common benefit package, co-payment rates and tariffs.
- Consider options for merging the IHIO and the SSO into one fund or pooling resources among schemes within each of the health insurance funds to increase purchasing power (see Chapter 2).

The delivery system should have the physical infrastructure and human resources to provide the package of health services and the delivery models to guide utilization in the right direction. Gatekeeping mechanisms and referrals are important to guide appropriate use at the appropriate level. While a referral system has been developed in the country, it has been used primarily in rural areas[4] and does not function adequately. Patients therefore self-refer themselves to specialists and hospitals, increasing expenditures and raising the cost of care *(34).* To mitigate this, clinical practice guidelines and referral protocols that define which interventions are to be delivered at which level of the health system and by which health workforce cadre should be developed and their implementation monitored. To support this, an electronic referral system is being designed by MoHME and the IHIO, and more than 200 clinical practice guidelines have been developed.

Policy option:

- Strengthen the referral system by scaling up the system nationally and by enforcing application of clinical practice guidelines and referral protocols.

A strong and unified health information system is critical to strategic purchasing. Ideally, the system should be interoperable such that it links data on insurance membership, service use, clinical outcomes and financial activity. An integrated system would strengthen the ability to make evidence-based decisions for purchasing and to manage the payment system. The country currently has many information systems, and there are plans to link them. For example, the MoHME is developing an electronic health record system by digitizing data from the health insurance system and linking it with health records and eventually to hospital information systems for patient billing and provider payments.

[4] As well as in urban areas with populations less than 20 000 and in the provinces of Fars and Mazandaran.

Policy option:

- Establish a unified, interoperable health information system to support strategic purchasing.

The potential of strategic purchasing to contribute to progress towards UHC is high given it can increase efficiency in the use of resources, quality in service delivery, equity in the distribution of resources and accountability to the population. Making purchasing more strategic is not solely a technical matter but also includes political and institutional dimensions. It will require time, significant effort and careful planning and coordination. A plan for strategic purchasing is needed in the Islamic Republic of Iran, and this should fit within an overall reform framework with a transition plan. Doing so would help to ensure alignment between purchasing and the revenue-raising and pooling functions of the financing system, as well as with other parts of the broader system such as service delivery, the health workforce and information systems.

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CHAPTER 4
Public voice and participatory governance in the health sector: status quo and way forward

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KEY MESSAGES

This review took place in 2017 and 2018 within the context of implementation of the 2014 Health Transformation Plan (HTP). The impetus for reviewing participatory governance of the health sector in the Islamic Republic of Iran was the specific emphasis given in the HTP on social affairs; with it came the need to gain more insight into which participatory platforms in health work well and which work less well and why. Findings are grouped into three areas of participatory governance.

Organized forms of public engagement:

- The definitions and mandates of the different types of civil society organizations (CSOs) in the Islamic Republic of Iran are blurred, resulting in a certain level of duplication and fragmentation.
- CSOs can be formal, semi-formal or informal but these categories are fluid and can change according to the specific action taken in the health sector.
- Civil society plays a mediating role between the people, the government and service providers.
- The creation of the Deputy Ministry for Social Affairs within the Ministry of Health and Medical Education (MoHME) is a crucial factor in providing an enabling environment for participation.

Participatory governance mechanisms available to the public:

- Formal citizen participation in health programmes was initially focused heavily on programme support and implementation rather than input into evaluation or decision-making. This has begun to change.
- Civil society networks, call centres and local, provincial and national health assemblies are being supported and encouraged by the government, demonstrating increasing recognition of the value of participatory governance in health programming and decision-making.
- The national health assembly is a potential opportunity for de-fragmenting participation as it brings together all the uncoordinated formal, semi-formal and informal structures working towards improving population health.
- A more formal legal framework may be required to ensure that participation becomes part of the health sector's modus operandi.

Intersectoral collaboration:

- The Secretariat of the Supreme Council for Health and Food Security, dedicated and resourced to foster multisectoral collaboration, is appreciated as highly relevant and useful to concretizing intersectoral work streams.
- A common understanding of multisectoral action is still needed across sectoral actors; this could help stimulate more joint projects and joint budgets.

INTRODUCTION

Given the emphasis on participation and social affairs in the 2014 Health Transformation Plan (HTP), the World Health Organization (WHO), the Ministry of Health and Medical Education (MoHME) and the National Institute of Health Research (NIHR) of the Islamic Republic of Iran identified a critical need to better understand the status of existing participatory processes in the health sector. The idea was to gain an in-depth insight into where the real challenges lie and into what works well enough to be scaled up. The ultimate objective is to chart a path forward to improve health governance in the country, one of the key elements in further advancing towards the goal of universal health coverage (UHC) in a sustainable, efficient and equitable manner.

This chapter thus focuses on participatory governance mechanisms in the Iranian health sector, specifically examining how public voice is taken into consideration in health sector policy-making and implementation. Based on these findings, options for strengthening and institutionalizing public participation in health are proposed, in view of reaching the objective of "socialization as an underlying principle of all health-related work in the Islamic Republic of Iran" *(1)*.

Three priorities for study were identified by the MoHME: organized forms of public engagement, including civil society, civil society organizations (CSOs), nongovernmental organizations (NGOs), community-based organizations (CBOs) and charities; participatory governance mechanisms available to the public; and intersectoral collaboration. The objectives of the review within these three priority areas were therefore:

- Organized forms of public engagement, including civil society, CSOs, NGOs, CBOs, and charities: to assess the current situation of health-related NGOs, philanthropic activities and the role of charities in translating public voice to action and community-based action in health
- Participatory governance mechanisms available to the public: to assess the status of public participation in health policies and programmes, the status of available participatory governance mechanisms and their functionality and bottlenecks and opportunities for improved and systematic engagement of people on health sector issues
- Intersectoral collaboration: to assess the status of intersectoral collaboration in health policies and programmes and to gain insight into the link between intersectoral collaboration and participatory policy-making in view of a mutual strengthening of both initiatives

REVIEW METHODOLOGY

The study is based on a literature review and key informant interviews.

LITERATURE REVIEW

A literature review of published documents was undertaken in Farsi and English. For the English-language review, the following databases were searched: Cochrane, Google Scholar, JSTOR, Project Muse, and PubMed. The search terms included "Iran" combined with each of the following terms: "participation", "community health", "participatory governance", "participatory health governance", "social participation", "citizen consultation", "citizen participation", "community participation", "community engagement", "social engagement", "patient participation", "health", "community health", "health care", "health system", "health policy", "public health", "health decision making", "health policy-making", "health promotion", "community health planning", and "health education".

In Google Scholar, the number of hits generated with the above search terms was over 1000. The sorting function "sort by relevant" was used to narrow down the number of hits on the search engine algorithm. The abstracts of the top 40 articles were thoroughly screened and reviewed for inclusion or exclusion. In Cochrane, the top 30 articles were screened. Many of these were already duplicates from Google Scholar. In JSTOR, 20 abstracts were thoroughly screened and reviewed. Many of the articles found were not duplicates from databases previously searched. In PubMed, 35 abstracts were thoroughly screened and reviewed; all other PubMed hits were duplicates of articles from Google Scholar and Cochrane. In Project Muse, only a few hits were found and deemed not relevant for inclusion into the study. In the other search engines, most hits were duplicates; those which were not were duly included in the study.

In total, 54 documents were deemed to be relevant for full-text review. The selection criteria were: (i) the studies are in English and (ii) the studies must contain one or more of the search terms. The full-text documents were then reviewed for relevance with the study objectives. 34 were thus discarded, mainly based on the lack of a link to the country, the health sector or participatory mechanisms. 20 English-language articles were finally included in the study. Four additional English-language articles were added in as suggestions from the Iranian team. All English-language articles' references were reviewed in an attempt to identify additional relevant references. The reference mining led to the review of 190 further abstracts. From the abstracts read, 29 were deemed relevant for full-text review. Of the 29 articles read in full-text, 8 documents were deemed relevant to be included in the study.

In parallel, the Iranian team reviewed Farsi-language articles in the following database: health.barakat-kns.com. The equivalent Farsi search terms for "people", "participation" and "health" were used (people: مردم; participation: مشارکت; health: سلامت). 1232 hits came up, and the article titles were reviewed for relevance with the topic at hand. 65 articles were thus selected, and their abstracts reviewed. From the abstracts, 29 articles were selected for full-text review. 10 articles were deemed relevant for further scrutiny. These 10 articles' abstracts were translated so that the WHO team could review them in English. A joint decision was made between WHO and the Iranian team to include the full-text version of 3 of those Farsi articles based on relevance to the study objectives. One additional Farsi article was added to the 3 for inclusion in the study after mining the references of the 3 Farsi articles. Hence, the total number of reviewed articles was 36 (Box 4.1).

All 32 English-language documents were reviewed using the study objectives as a framework for analysis. The preliminary findings were presented to a government-led health sector stakeholder group in Tehran in October 2017. Based on the feedback and ensuing discussion, it was decided to add the Farsi-language literature review (mentioned above) and to do primary qualitative data collection to fill knowledge gaps.

Box 4.1: Articles included in the literature review

IN ENGLISH

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BOX 4.1 (CONTINUED)

Mehryar AH, Aghajanian A, Ahmad-Nia S, Mirzae M, Naghavi M. Primary health care system, narrowing of rural–urban gap in health indicators, and rural poverty reduction: the experience of Iran. In: Conference of the International Union for the Scientific Study of Population (IUSSP), 18–23 July 2005; Tours, France.

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Rajabi F, Esmailzadeh H, Rostamigooran N, Majdzadeh R. What must be the pillars of Iran's health system in 2025? Values and principles of health system reform plan. Iran J Public Health. 2013;42(2):197–205.

Rifkin SB. Community participation in Iran. Report submitted to the World Health Organization Regional Office for the Eastern Mediterranean; 2005.

Salazar-Volkmann C. Civil society, poverty reduction and the promotion of children's rights in Iran. Child Youth Environ. 2009;19(2):250–71.

Shadpour K. Primary health care networks in the Islamic Republic of Iran. East Mediterr Health J. 2000;6(4):822–5.

Squire C. Building organisational capacity in Iranian civil society – mapping the progress of CSOs (Praxis Paper No. 8). Oxford: International NGO Training and Research Centre; 2006.

IN FARSI

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Mohammadi Y, Javaheri M, Mounesan L, Rahmani K, Naeini KH, Madani A, et al. [Community assessment for identification of problems in Chahestani region of Bandar-Abbas city.] J School Public Health Inst Public Health Res. 2010; 8(1):21–30.

Tavakol M, Naseri Rad M. [Relationship between social participation and cancer among patients in the cancer institute of Tehran.] Hakim Res J. 2011;14(3):137–43.

Yazdanpanah B. [Community based participatory research, a model for health promotion.] J School Public Health Inst Public Health Res. 2013;28;11.

Due to the sparse nature of information gleaned from the literature review, much of the findings described in later sections of this chapter were taken largely from the qualitative data gathered specifically for purposes of this review.

KEY INFORMANT INTERVIEWS

Key informant interviews and group interviews were conducted in February 2018 in Tehran and Qazvin provinces. Reflections from those interviews, together with the literature review, the October 2017 stakeholder meeting discussions and subsequent exchanges between the WHO, MoHME and NIHR, helped shape a preliminary coding framework with broad common themes.

All interviews were transcribed into Farsi and then translated into English by a certified translator. The authors analyzed the English translated transcripts by applying the coding framework to the interview transcripts, then modifying and adapting with additional new themes emerging from the data (deductive-inductive mixed approach).

The analysis was conducted by four authors of differing institutional identities (one from the WHO, one from the MoHME, one from the NIHR, and one independent) to ensure different points of view and reduce confirmation bias. Each transcript was examined by at least two authors. Each coded phrase or text passage was reviewed by at least three authors and discussed during Skype or Webex sessions, where discordances and differing understandings were discussed in detail, and a consensus reached. If needed, the original Farsi transcripts were referenced to ensure understanding of what the interviewee had said and the context. This process helped to validate the thematic codes which fed into an updated version of the coding framework. We further used the literature review to triangulate the findings.

LIMITATIONS

Documentation in English on this topic, specific to the Iranian context, was limited and of variable quality. The Farsi-language literature helped in getting a more realistic and local insight into citizens' voice and participation in the Islamic Republic of Iran, but there were only a few number of articles.

The qualitative data collected in interviews were varied and rich and enormously helpful in shedding light on this topic. However, the interviews unfortunately turned into very official WHO visits where frank expressions of thought may have been restricted in favour of more "official" views. An attempt at mitigating this bias was made through honest exchanges between the WHO and Iranian authors when interpreting the interviews. In addition, a few interviews at the end were deliberately conducted without the WHO's presence. We also triangulated data with the document review, which was conducted by four authors of differing institutional identities.

The number of interviews was limited due to time and resource restrictions, and due to the applied nature of this study. Rather than being a strict academic exercise, we attempted to answer a burning policy question relevant to current health sector decision-making.

Lastly, we wish to acknowledge translation problems in the broad sense of the word – literal translation was assured through a certified translator but this did not reduce the barrier of varying cross-cultural understandings of certain words and phrases. This limitation was addressed by referring back repeatedly to the original Farsi transcripts during the analysis phase and cross-checking the meaning when needed.

ORGANIZED FORMS OF PUBLIC ENGAGEMENT

The study objectives addressed in this section were to assess the current situation of health-related NGOs, philanthropic activities and the role of charities in translating public voice into action and community action in health.

DEFINITIONS OF CIVIL SOCIETY, NONGOVERNMENTAL ORGANIZATIONS CHARITIES, AND COMMUNITY-BASED ORGANIZATIONS

The Islamic Republic of Iran has a long history of civic engagement and philanthropy, which are enshrined in its culture and religious thought, especially in social spheres such as health. Although the imported term "civil society" was increasingly used in relation to civic activity in the late 1990s, its definition in the Iranian context has never been completely clear *(2, 3).* What is clear is that the ideals represented by western notions of civil society and civic engagement have been in the Iranian psyche for centuries and have been influential in shaping social, political and economic life *(2).* For example, religious charities, often described as the backbone of civil society in the country, and urban NGOs in some areas, provide valued social services (e.g. assistance to orphans and poor children), and many do so in a truly participatory manner at local levels. The Director-General for NGOs and CBOs in the MoHME estimates that around 14 000 charities, NGOs, community funds, or foundations exist in the country, with 10% of them working in the health sector; other religious entities are engaged in charity work *(4).* Charity is therefore an integral part of community life in the country and an important vehicle for the participation of certain sectors of the population.

In this chapter, we employ the term "civil society" or "civil society organizations" for all collective civic action for social purposes*, whether organized or not, whether through registered bodies or not. This encompasses nongovernmental organizations, charities, community-based organizations, etc.

***For this analysis, it is implied that the action takes place in the health sector.**

For purposes of this analysis focused on organized forms of civic engagement in the health sector, we draw on Hegel's view of civil society as a product of history *(5)*. In the Iranian context, this would mean regarding civil society as the collective internalization of a civic sense as well as the civic activity stimulated by it. In essence, individual charitable action and community support for the poor has always been part and parcel of the population's fabric.

The concept of civil society used in the international development world is anchored in the idea of the state and civil society being two separate entities, with civil society being explicitly "non-state" in character, as an either opposing or complementary force to the state, depending on the context. However, if civil society is rather a product of a people's history, as in the Islamic Republic of Iran, the state has "historically stood at the top of society as a paternalistic figure with responsibility for welfare" *(2).*

It is thus important to understand that, in the Iranian context, organized forms of civic engagement have blurred boundaries between the state and the people, especially in social sectors such as health where welfare and charitable activities often see the state and non-state actors working hand-in-hand. Due to government changes and the changing political context, there is also an evolving character to how civil society and civic action is viewed and played out in the Islamic Republic of Iran; it thus makes more sense in this context to understand civil society as a dynamic process rather than a static entity with definitive structures.

Keeping in mind this close interaction of state and society, charity and development and political, personal and financial ties in the Islamic Republic of Iran *(6),* we discuss the principal terms linked to organized forms of public engagement.

The Director-General for NGOs and CBOs in the MoHME defined an NGO as "*an organization that is legal, non-profitable, independent, and voluntary. It supports the well-being of the people, especially the disadvantaged class. This is the definition that we've added in the Ministry of Health, in particular the disadvantaged class.*" He went on to specify that *"charities or charitable enterprises are more well-off people who want to do charity work, their work is more financial assistance. For example, they give cash to orphans or widowed women. The NGOs that we recognize as the NGOs do the scientific work."*

According to the above-mentioned definition, NGOs are non-profit entities with no paid staff, independent of the government or any political or religious agenda and mainly engaging in technical work and service delivery. While several NGOs do fit this definition, in practice many do not (e.g. many NGOs do have paid positions). However, this definition helps greatly in getting a sense of what most NGOs are *most likely* engaging in, which many study interviewees confirmed was largely curative care and patient support linked to specific diseases, and how they *most likely* operate.

The insight provided by the Director-General for NGOs and CBOs on what a charity is links up closely with the Iranian (and Islamic) tradition of giving to the underprivileged, where there is need. Since the focus of the term "charity" is on financial assistance more than anything else, NGOs are often seen as charities if they undertake fundraising and have wealthy donors. Therefore, the same institution can be functionally both an NGO as well as a charity. As the CEO of the renowned cancer charity hospital Mahak confirmed in his interview, *"25 years ago, charity organizations were registered under Article 10 of the Law of the Parties in Iran…such as Mahak…but in essence and unofficially, all recognize Mahak as an NGO in Iran."*

The term "charity" is used more for financing charitable works whereas the term nongovernmental organization has the connotation of charitable action.

CBOs enjoy a long tradition in the Islamic Republic of Iran, especially in social sectors such as health, without necessarily being labelled as such. Indeed, volunteer work is ingrained in community life, with a strong commitment to contribute to communities. CBO work is traditionally localized and grassroots in nature, rather informal in some places but formalized in others, and not traditionally under the direct control of the state nor private sector. One interviewee characterized CBOs as *"the association…that is formed by the local residents with a local identity. Its difference with an NGO is that it does not have bureaucracies of registration and is formed based on an identity."*

In many settings, however, especially during the reform movement of the 1990s, some CBOs were increasingly linked to or merged with state-sponsored health programmes due to the synergies and complementarities they offered. The Iranian government recognized the potential in using CBO channels for low-cost health programme delivery. In addition, much of the grassroots activities are often done in collaboration with institutions with close ties to state or parastatal entities, such as mosques, which inevitably lends itself to closer merging with government health activities.

Grassroots activities in health are also conducted by numerous informal social groups who are not registered with any government body. As the Director-General for NGOs and CBOs affirmed, *"A large number of organizations and social groups are into charity work, hundreds of thousands, but they do not have legal status".* This may be linked to a wish to stay as independent as possible from government intervention or religious convictions to stay anonymous while giving *(7).* Many of these informal (but, at times, very well-organized) social groups serve the poor and underprivileged. They resemble CBOs in that they have close ties to local communities and are heavily dependent on community networks.

Many of these informal groups work out of local mosques and use the infrastructure of clerical organizations *(2),* while remaining informal. Others have merged with organized health activities under the patronage of the Supreme Leader, making them de facto formal.

Community-based organizations conduct grassroots work in health, with close ties to communities and a focus on the poor and underprivileged.

The notion of de facto formality also holds true for a plethora of health-related activities coordinated and funded by entities under the Supreme Leader. These organizations have vast resources and capacity, as well as the trust and familiarity of communities as a basis of their support and influence. Minimum alignment of such informal health work with the goals and activities of the HTP would greatly benefit population health. The same is true of the work of other quasi-civil society institutions, such as the social services branch of the Basij paramilitary organization, which conducts health promotion and prevention and curative care. For example, in recent earthquake disaster relief efforts, the Basij worked alongside state representatives, although they were not the state's official representatives. Coordination of these activities, to reduce duplication and synergize efforts towards HTP goals, could create efficiency gains and win-wins for all sides.

CIVIL SOCIETY AS A MEDIATOR BETWEEN THE STATE AND THE PEOPLE

The notion of CSOs acting as a middleman (or middlewoman) between the state and the population came up repeatedly in our interviews and is supported by the broader literature. Ultimately, civil society in the Islamic Republic of Iran fills a vacuum in the health space between people's expressed needs and wishes and how the health sector is organized by the government to respond to those needs and wishes. Iranian civil society often facilitates communication on behalf of the people for various purposes: to obtain information from the health system, to provide ideas, give feedback, complain, etc. This mediator role is clearly illustrated by a civil society member from the Qazvin province: *"the [civil society] person is so closely aligned with his or her group members that s/he constantly monitors the problems and demands and submits them to monthly meetings… Then we will prepare the minutes of the meeting. We send a correspondence with the minutes to various organizations. Suppose the problem is related to the municipality, we write down and officially declare that this person or group has such a problem and request the organization to resolve it. If it does not fix it or underperforms, we will send a copy to the Governor General."*

One of the roles which Iranian civil society takes on is thus a functional platform for dialogue and exchange between the populace and the state, because they are more organized, have a distinct purpose and are able to channel the information in a concise way. This role seems to be more of a one-way channel where needs are expressed bottom-up and decision-makers respond (or not). In terms of the HTP, given the necessary trade-offs in health investments which sanctions will render more acute, this civil society role of dialogue is actually a critical one for the government to leverage in view of building consensus around those difficult decisions. In essence, it is a big value-add for the government to make this more of a two-way channel.

FUNDING FOR CIVIL SOCIETY ORGANIZATIONS

The funding situation for CSOs in the Islamic Republic of Iran is complex, partly because CSOs are difficult to define in the first place. Government-run programmes such as the Volunteer Women's Health Programme or the Community-Based Participatory Research Programme are often mislabelled as "NGOs" because of the social nature of their activities, although they are entirely government-funded. On the other hand, their reliance on volunteers and on the inherent motivation to participate in Iranian society means that these programmes can be executed at a relatively low cost.

Government funding, and moral and technical support in general, is a function of the overall general political environment favouring citizen action. Currently, solid support for population participation is demonstrated by the current government's creation of a Deputy Ministry for Social Affairs in 2016 within the MoHME, with the explicit aim of improving integration of participatory approaches into the modus operandi of the health sector. The Director-General for NGOs and CBOs, a newly created post under this Deputy Ministry, explained how his department is encouraging civil society growth: *"For example, the area of the University of Iranshahr covers a million inhabitants that [does] not have even one NGO… We had a session with the NGOs to set up their branch there and they did. Now nearly 15 NGOs are active in Iranshahr, and the same benefactors equipped the building also."* A current advisor to the Minister made the point clear as well in pointing out the objectives of the new Deputy Ministry: *"[The] Deputy for Social Affairs should have some budget to implement this pilot project, to empower the NGOs, to empower the communities, [and] to train the charities."*

That being said, NGOs and charities do still rely heavily on private donations for their existence; the term "charity", as described above, is in fact linked more to *financial* contributions to philanthropies rather than charitable actions per se. One parliamentarian interviewed even felt that public participation was mostly a question of financial contribution towards public goals: *"[S]trengthening people's participation [is] part of the approach...of [the] Ottawa Charter for Health Promotion. And financing is one of the aspects that people can contribute to… Now, on the financial contribution of our people, we should not forget an option: benefactors. Benefactors are doing great things in the field of health. We may have more than thousands of NGOs and CBOs, who are somehow helping in the field of health, or those who contribute to the construction [of health facilities]."*

The willingness of Iranian citizens to contribute, including financially, is seen increasingly by the government as a means of contributing to achieving public health objectives, such as those of the HTP. Given the re-imposition of economic sanctions, the government may have little choice, at least in the short term, in order to maintain a certain quality and quantity of health services and health system functioning. In-kind, moral and technical support will also be necessary, first to provide an enabling environment for civil society to operate and secondly to strengthen the capacity of civil society to contribute to public health goals.

THE GOVERNMENT'S APPROACH TO CIVIL SOCIETY WITHIN THE HEALTH TRANSFORMATION PLAN

Many interviewees described the current environment as open and enabling for testing, scaling up and institutionalizing participatory approaches. A Ministry official stated with regard to the Deputy Ministry for Social Affairs: *"The Minister of Health emphasized that he was not willing for the [Deputy Ministry for] Social Affairs to just stay in the scope of the [central ministry]. All the universities and the deans of the universities [in the provinces] should know that the main mission of the Secretary, in this term, is regarding health as a social issue."*

However, an enabling macro-environment does not necessarily guarantee an enabling micro-environment at local or provincial levels. Interviewees also underlined that some (not all) government entities not only lack confidence in the ability and utility of civil society or NGOs but often view them as direct competitors instead of partners. One provincial civil society representative summed it up flatly: *"Our authorities…think we are going to take the position from them."*

In light of the objectives of the HTP and the difficult economic climate, the role of civil society should be smartly positioned, encouraged and leveraged. The perception that civil society is a rival to the state in health affairs exposes the acute need for capacity-building initiatives for government actors so that they better understand civil society stakeholders and can leverage their potential strengths. This need is further underlined by another view expressed by an interviewee that the main route for civil society participation is through their votes for elected officials who make policies in Parliament: *"Usually, people do not play a role in policy-making. And these are people's representatives who can decide and plan in the field of policy. People do not directly interfere in politics, but their representatives play a major role in policy-making in the field of treatment. People reflect on their problems to their representatives. Representatives try to resolve problems in the area of public health with legislation."* Such stances can only be counterbalanced by

capacity-building initiatives aimed at working with government cadres to demonstrate the added value of pursuing joint goals with civil society.

In line with the need for capacity-building for government cadres is the urgent need for the government to take on a major coordination role to enable it to effectively steer the health sector – this means coordinating all activities within the health sector, even if they are carried out and implemented by civil society, quasi-state organizations or others, and aligning them towards HTP objectives. Coordinating activities is not equal to controlling the activities, but rather harnessing the willingness of stakeholders to contribute to the HTP. This could be done, for example, by inviting such partners to the Supreme Council for Health and Food Security meetings when necessary, by establishing a national steering committee for health which includes all relevant stakeholders or by using the national health assembly to bring these particular stakeholders together with the explicit objective to coordinate among themselves.

In effect, government coordination with CBO and NGO actors is now more official with the creation of the Deputy Ministry for Social Affairs. One parliamentarian interviewed emphasized: *"Certainly a…Vice Chancellor for Social Affairs was a positive and successful establishment within the MoHME. That they identify the CBOs, organize them, and direct them to where [they are] needed, is definitely effective, and I think it was a positive work that, fortunately, [was] undertaken and should be strengthened."* For other important non-state or quasi-state actors in health, an exchange of information could avoid expensive duplication of effort and wasted resources. Streamlining all health sector activities, ensuring efficiency gains and joining forces for a common goal is now more needed than ever.

Another theme which came up in the interviews was government responsiveness to people's stated needs and demands. Many people reported their disillusionment when legal decrees and formal decisions for which they had advocated were not implemented, underlying the need for systematic government follow-up to issues raised through the civil society medium. Encouraging civil society participation in the health sector logically means that the government must also have a plan for follow-up or, at the very least, a good plan for communication and collaboration with civil society to ensure that its viewpoint (e.g. regarding feasibility) is taken into consideration. Such a collaboration would also address the vital need for building trust between the government and civil society, both to sustain the work of many of these organizations and to fulfil the purpose of contributing to broader health sector objectives, such as those of the HTP.

The MoHME is actively promoting collaboration between different charities, NGOs and CSOs working on similar topics by supporting the formation of networks *(8),* with a national secretariat under the tutelage of the MoHME. This initiative is focused not only on cross-civil society exposure but also on building closer exchange on technical topics between civil society and the MoHME. These kinds of initiatives help foster the enabling environment needed for civil society actors in health to flourish and contribute to public health objectives.

CHALLENGES FACING CIVIL SOCIETY ORGANIZATIONS IN THE HEALTH SECTOR

Organized forms of social action have a long tradition in the Islamic Republic of Iran, with much of the work done in the informal sphere. In fact, many CSOs, especially CBOs and faith-based charities, do not officially register with the government. The reasons may be the desire to remain truly independent of the government, a religiously motivated wish to remain anonymous or cumbersome bureaucracy.

These three possible reasons represent a challenge for CSOs while operating in the Islamic Republic of Iran's health sector. Cumbersome bureaucracy is being reduced by the current government – for example interviewees emphasized the comparative facility and speed with which organizations are accorded licenses. Nevertheless, registration remains daunting without explicit government support or a link to government bureaucrats. The religiously motivated wish to remain anonymous is mainly relevant for financial contributions – the challenge is to ensure that this is respected while simultaneously making explicit which activities are being undertaken by whom in order to not duplicate activities and contribute coherently to a broader public health goal.

Independence from the government is more difficult, as governments change, and collaboration is easier with some than with others. Nevertheless, a balance should be struck between coordination of civil society in order to take advantage of its full potential in meeting public health goals and the freedom of civil society to respond in its own way to community needs and demands. One interviewee said: *"Because the [public] organization is government-centred and wants everyone to serve it. But they [grassroots] want to have an independent identity. This is happening because [the] government want[s] to take their freedom and do[es] not treat them as partners."*

A significant challenge for some civil society bodies is lack of capacity, sometimes due to insufficient or unpredictable resources, which may reduce their credibility and thus their impact. Interviews with civil society representatives often revealed a sense of improvisation. One representative said, *"[O]nly people who have been organized regularly and coherently with good rules and regulations will be able to resolve the problems they face."* In essence, a more systematic approach to the social work and a professionalization of its volunteers to some extent is needed.

PARTICIPATORY GOVERNANCE MECHANISMS AVAILABLE TO THE PUBLIC

The study objectives addressed in this section were to assess the status of public participation in health policies and programmes, the status of available participatory governance mechanisms and their functionality, and bottlenecks and opportunities for improved systematic engagement of people in health issues.

INCREASING INTEGRATION OF A PARTICIPATORY APPROACH TO DECISION-MAKING IN HEALTH

The Iranian government solicited people's participation in programmes such as primary health care and women's health immediately after the Islamic Revolution, partly as a means of providing services at a low cost at a time when resources were scarce. Such initiatives included the Volunteer Health Worker programme, which began in 1992 with 200 women, mainly from low-income neighbourhoods in Tehran, and had reached 100 000 women by 2007. In those early years, participation mainly involved implementing programmes designed by government institutions, and this approach has not entirely disappeared.

Most of the programmes were implemented at a decentralized level, even if many were funded centrally; it is telling that almost all of the published articles reviewed for this chapter focused on local, community-based health programmes and initiatives. These programmes implemented at local level are another avenue, besides through civil society initiatives, for Iranian citizens to participate in health sector activities. Citizen participation in most of these mainly central government-funded programmes focused quite heavily on programme support and implementation. A clear separation of roles and responsibilities between those who fund and conceptualize the work, and those who execute, marks the approach of many of these programmes. Several studies pointed to the lack of opportunity for citizens to participate in areas such as monitoring and evaluation and, more importantly, in decision-making *(9)*. One study concluded that "according to the participants (of community-based health programmes), governmental programmes have centralised decision-making and management processes and local volunteers have no role in selecting managers at different levels of a programme" *(10)*.

This began to change in the 1990s and early 2000s, mainly with municipal health programmes. For example, the Urban Health Equity Assessment and Response Tool (HEART) allowed considerable local decision-making *(11, 12),* with discussions between community members and experts on how best to improve their health conditions, such that their decisions were taken up by municipalities in most places. The enthusiasm of the communities demonstrated the potential of involving local communities in issues that affect their daily lives. Similar pilot projects have effectively involved communities in the design, implementation and evaluation of health activities and programmes, largely confined to the local level. Most of the programmes capitalized on the long tradition of civic sense in the Iranian population.

Municipalities, most notably in Tehran, were one of the driving forces in encouraging citizen participation in health. As a Neighbourhood Health House staff member in the Sharif district of Tehran mentioned in an interview, *"[T]he Tehran municipality, after years of taking care of the affairs by itself, dared to entrust the management of the affairs to the people. [Then]…this structure took shape and was sustained and the municipality… assumed the supportive role to help the people."* Indeed, a more direct link is seen between municipality decisions on health programming and feedback from communities and NGOs. Decision-makers at local and municipality levels have come to value feedback from programme volunteers who relay concerns of the community, which are considered carefully in health policy and planning. As one volunteer said, *"In principle, we transfer the feedback of the community to [the municipality]. They get more familiar with the problems and demands of the people."*

The current central government has taken note; there is a palpable and growing recognition that some of the good pilot and project results must be capitalized on and fed into national-level policy-making. The "socialization" of health, a term often mentioned in the MoHME, is an excellent starting point.

FRAGMENTATION AND DUPLICATION NEED TO BE ADDRESSED

The numerous pilot programmes, municipal initiatives and project-based research are not well connected with each other, some ending up as one-off projects and others continuing independently. Moreover, many successful, well-run and centrally-led projects were discontinued rather abruptly or relegated to lower priority, with little documentation or inadequate evaluation. This has led to fragmentation and duplication of efforts and a lack of consolidation of lessons learned and progress made.

The government should spend time and resources on coordination, especially in difficult economic times when each rial counts. The jurisdiction of and services provided by centres such as municipal health houses, "people's participation" houses, health centres, and health posts (Table 4.1) overlap to some extent, which may or may not correspond to a true community need, as they arose in particular contexts. It would be useful to examine how municipal and centrally funded services and their respective approaches to participation could explicitly complement and learn from each other's experiences.

Failing to adequately coordinate participation will not bring about the culture change envisioned in the MoHME commitment to "socialize" the way the health sector works. In the end, despite the gains made over the last few years, there are still many programmes and health initiatives run in a top-down way – participatory decision-making is not yet a widespread phenomenon. A coordinated, holistic and common approach to engaging the population will be necessary to ensure that efforts are channelled towards common public health goals.

A promising avenue in this regard are the local, provincial and national health assemblies which are slowly taking shape in the Islamic Republic of Iran. Targeted and participatory monitoring and evaluation of health programmes, together with citizen volunteers and the beneficiaries of the programmes, would also need to be undertaken and scaled up.

TABLE 4.1:
FACILITIES FOR PUBLIC PARTICIPATION IN HEALTH IN THE ISLAMIC REPUBLIC OF IRAN

Type of facility	Description
Municipal health houses and health clubs	In Tehran and many other cities, each district has a health house, which organizes clubs on health issues such as diabetes, ageing and blood transfusion to educate the public. Some also provide consultation and counselling under the supervision of the municipality's director of health. All services are provided by volunteers.
Rural health houses	These primary care facilities under the supervision of the MoHME and are run mainly by *behvarzes,* who are from the same village and trained in basic health services by the government. Some rural health houses also have volunteer staff who support the *behvarzes* in service delivery and outreach.
Urban health posts	Same as rural health houses but located in urban areas.
Comprehensive health centre (rural and urban)	These centres have trained, government-employed, professional medical staff, who provide second-level service under the supervision of the MoHME. They also supervise the health houses and health posts and are thereby involved in participatory activities.
People's participation houses	These are essentially community organizations governed and run by 21 volunteers representing different constituencies, including teachers, retired people, currently active workers, *Basij,* and religious groups. The governing body brokers between decision-makers and the population in their catchment area.

AVAILABLE PARTICIPATORY GOVERNANCE MECHANISMS AND THEIR FUNCTIONALITY

The mechanisms considered most relevant by the MoHME and the WHO are listed below, with reflections on their functionality and challenges.

Civil society networks

The MoHME through its Deputy Ministry for Social Affairs is investing in creating networks of NGOs working in the same health area, such as cancer. The President of the Mahak cancer hospital spoke about this initiative in his interview: *"[In] recent years, a good move has been made in the Ministry of Health, indicating that the Ministry of Health believes in the role of NGOs in planning. The Deputy Minister of Health has helped to form a network of cancer NGOs. One year since the creation of this network, and because Mahak is the board chairman of this network, I can say that in this past year, the most important thing we did was learn to sit and work together around the table."*

This acknowledgement demonstrates one of the principal reasons why such networks are so important for not only developing civil society in the Islamic Republic of Iran but also for bringing together the different inputs from various civil society actors into a coherent whole. The President of Mahak hospital continued to elaborate: *"Currently, thirty-six NGOs involved in cancer are members of the network…in Iran as a whole with different areas of activity, different dimensions and different expectations, which may still not be prepared to have a network together. We work together to run a network. Currently, according to the National Cancer Control Program, we are preparing a strategic plan for the network, to define the role of the network and the Ministry of Health as partners working together. And we think it's a golden era for the network to be able to create a protocol for collaboration with the government body and use it in the future."* Giving civil society the technical and moral support and, at times, resources to increase its capacity to collaborate and find consensus allows it to have a more equal voice in government-led policies. At the same time, it also makes it easier for the government to coordinate with civil society as it presents itself with a more united voice.

The initial networks which are the focus of MoHME support bring together registered NGOs, which mainly cover curative care; this could be expanded to CBOs, charities, faith-based charitable organizations, semi-governmental organizations, etc. Networks, such as that for cancer, with specifically stated objectives and a defined division of roles and responsibilities would allow for synergies and complementarities as well as promoting a culture of collaboration towards HTP goals. These networks could also assist in selecting the right people to participate in health assemblies, as discussed further below.

EXAMPLES OF CIVIL SOCIETY NETWORKS IN IRAN:

- Maternal & child health care
- Family planning
- Case finding and follow-up for tuberculosis, malaria, mental disorders, diabetes, and hypertension
- Diseases with limited symptomatic treatment
- Environmental health
- Occupational heath
- School health
- Oral health
- Elderly care
- Community-based rehabilitation

Call centre

The MoHME has set up a call centre as an innovative platform to gather citizen input through a dedicated phone line, managed by a unit within the Ministry, the Center for Accountability and Complaints of the Health System. A short three-digit number, 190, is allocated to this phone line and is fairly well-known by health system users. This was an initiative under the HTP, integrating various pre-existing complaint forums run by the MoHME into one centre.

MoHME CALL CENTRE STATISTICS

- Number of staff per shift: 50-60
- Mean daily number of calls: 1500
- % of calls which resulted in filing a complaint: 10%

The previous forums were focused on complaints and were not always functional as it was not accorded a high priority. The importance given to this call centre for HTP implementation is attested by its opening hours of 24 hours a day and 7 days a week. As one call centre staff member put it, *"It is a great investment because people's requests from any part of the country require government intervention, and this is needed in decision-making of senior executives to advance the goals of the transformation plan. It is notable that in the past these were scattered, and the system was not coherent and focused."*

Major features of the call centre which enable it to focus on health transformation are:

- It has dedicated staff members to analyse call data and to follow up on feedback given;
- It is not only on complaints but also on gathering constructive ideas and suggestions, with real-time feedback on health services across the country; and
- There is a strengthened decentralized government network to ensure that more systemic bottlenecks are addressed in the right policy dialogue forums.

A shift coordinator at the call centre underlined how it directly supports HTP objectives: *"We…use the information that people provide to us as a public oversight tool, to protect the rights of the service receivers and of the service providers and to provide information needed by senior executives."*

One of the principal HTP objectives of reducing under-the-table payments to health providers has been effectively tackled with measures such as this call centre. Many of the citizen calls were made to report such payments. A call centre staff member reported, *"One of the most important goals of the transformation plan was to protect the health system from unconventional payments that were common before the HTP… Tariff complaints...are reported to us by people. After the people's reports, and with the approval of the honourable Cabinet, a special committee has been set up to handle cases at provincial level… These complaints are dealt with legally and referred to the judicial authorities after review and verification. The function that this process has had for us [is] the unconventional payment has become close to zero."*

Such direct citizen feedback mechanisms are critical to ensure adequate reform implementation as well as popular support for the reforms. Such a mechanism requires a fairly heavy human resource investment – roughly 100 people work in the MoHME call centre – and is most valuable when used as a monitoring tool as it is in the Islamic Republic of Iran where feedback is collected systematically, analysed, and fed back into policy and implementation.

Local, provincial and national health assemblies

The health assembly initiative, which began in 2016, aims not only at fostering participation in the health sector but also institutionalizing it for the long term. The idea is for health assemblies to take place at local, provincial and national levels on a regular basis; the MoHME is working with local and provincial health authorities to support and build capacity for this. In 2017–2018, 266 local health assemblies took place, 30 out of 31 provinces conducted a provincial health assembly and the first national health assembly was held.

These assemblies could consolidate the work of both the government and the population towards health sector reform as laid out in the HTP. The format offers a platform for citizen input, coordination among citizens, communities and civil society, coordination between the state and the population, and collective ownership of the HTP.

As mentioned in previous sections, a long-standing tradition of civic action has always existed in some form at the grassroots. A local health assembly would serve to coordinate and consolidate this action and assist in institutionalizing local participatory structures to enable more feasible and implementable decisions. In addition, the local health assembly would be the ideal platform to bring together heterogenous CSOs working locally. It would also bring together the population as a whole with local civil society, giving those who may be less heard a voice as well. In essence, if developed well, local health assemblies have the potential to form the grassroots basis of local decision-making which, through provincial and national health assemblies, can link upwards to national policy-making. These reflections are not new and have already taken root in the MoHME; different formats are being tried and tested with the different regions at the moment.

Efforts to build effective community and civil society networks for health should represent the foundation for the local and provincial health assemblies. In Thailand, for example, the central-level National Health Commission Office provides technical support and capacity-building to strengthen networks at local levels with the aim of having better representation at their health assemblies *(13).* The stronger and more functional the networks, the more representative the assembly delegates are of the people and communities they speak for. Another advantage of strengthening networks in parallel with developing and refining the health assembly process is the intra-community coordination to present a position at the assembly that reflects collective views and not individual interests. The health assembly then transforms into a forum where dialogue leads to a compromise between a finite set of various coordinated positions.

THE NATIONAL HEALTH ASSEMBLY AS A POTENTIAL OPPORTUNITY TO DE-FRAGMENT THE APPROACH TO PARTICIPATION

The national health assembly concept has great potential to bring together a wide range of stakeholders to examine, discuss and find viable solutions for health sector challenges, while simultaneously drawing on the same stakeholder base to help implement those very solutions.

The stakeholders brought together should include municipality staff working on health as well as central ministry authorities, semi-governmental organization health programme volunteers, religious charities, scientific associations, research centres, trade unions, representatives from other sectors, representatives from judiciary organs, etc. Such a broad stakeholder base exchanging on their respective health-related activities would assist greatly in reducing duplication and fragmentation among the various projects, pilot studies and programmes co-existing in the Iranian health sector. Having the various stakeholders collaborate and coordinate with each other will not necessarily be easy; however, a platform such as the national health assembly could facilitate this greatly by providing an official annual event where exchange and debate can take place. The strength of the platform will be dependent on ensuring that all decisions taken via this platform are official, enforced and implemented.

The nascent national health assembly process in the Islamic Republic of Iran also serves as a potential channel for NGOs and charities to influence national-level health decision-making, thereby better connecting the local with the national. To date, much of the long-term local participatory programmes have remained local in nature – those that are centrally-funded tend to be one-off pilot projects which have not always taken hold as long-term institutions (with some notable exceptions). It would be an immense missed opportunity if the different needs, views and willingness to contribute embodied in the multitude of local participatory health activities were not adequately channelled towards sustainable health goals as outlined in the HTP.

The national health assembly also has the potential to build trust through regular dialogue between civil society actors and government institutions. Indications of misunderstanding and mistrust came up in interviews, with one interviewee stating, *"For the first time, people don't believe us. Because they have something in their mind, they don't believe the government sometimes… Especially, in our country…if they understand we are from the government, first time, they will look [at] us very cautiously. But later you have to show them that you are positive to them, then maybe they change their ideas."* Experience from other countries demonstrate that increased trust is one of the intermediate results from a well-planned policy dialogue *(14).* Increasing exposure to each other and each other's differing mentalities greatly fosters mutual respect for diverging views, thereby building trust.

COMMUNITY HEALTH BEHAVIOUR AND WOMEN'S EMPOWERMENT

Interviews repeatedly attested to community health volunteers' achievements in raising people's awareness and knowledge, thereby contributing to improving population health. Many volunteers themselves recounted stories of how community behaviours, especially with regard to health prevention and promotion, had indeed changed over time. In addition, community awareness on health determinants led them to act decisively at times, as explained in the following vignette:

"In Kashan, close to Tehran…they understand the problem of motorcycle accidents is very prevalent in this area. So they decided and they went to the police officer. And they said, 'according to our research in our area, [the] number of accident[s] by motorcycle is very high, and we want to ask you something'. They said, 'what do you want from us'. [We] said, 'if somebody is coming to apply for [a] motorcycling license, please send them to us'. 'Okay that's no problem'. So they know this area. Somebody came to them and the address was in that area, they would send that person to the community, and [we] will talk to that person like, 'okay congratulations! You are going to get a motorcyclist license, but remember so and so, and they go to the hospital' and [then we] show him the people who have been injured in the hospital. So [we] give him some information. After having this information, the number of accidents had been decreased. So that was a research before and after the intervention. That intervention was very simple that they needed the agreement with the police officer. So, something like this, very small thing, but the methodology is very important".
– Former manager, Community-Based Participatory Research Programme

Another positive impact mentioned was the increased ability by citizens and communities to better identify and express their health needs, greatly facilitated by volunteer support. These achievements, in turn, led to volunteers feeling empowered by their work. The mostly female volunteers gained much informal influence due to their status, experience and confidence *(15, 16).* Participation thus empowered women to support public sector decisions for their communities, without having a more formal role.

LEGAL FRAMEWORKS FOR PARTICIPATION

Currently, there is no formal legal guarantee of public participation in health in the Islamic Republic of Iran. One parliamentarian said, *"laws [should] still be made so that more people are encouraged and contribute, I think there is still a lack [of this]."*

A culture of participation, therefore, depends on whether officials support it. One interviewee described the value placed on participation: *"Today the Minister strongly supported that all of the Vice-Ministers should strengthen socialization insights in their own specialized fields."* Another said that *"the Tehran municipality, after years of taking care of the affairs by itself, dared to entrust the management of the affairs to the people."* A former politician also stressed the importance of

political support: *"The message is that when you go to community participation, the political issues are very important, and they can stop you or accelerate you… [E]verybody likes doctors, capsules, ampules, you know, these are technical issues. But when it comes to the community, it is [a] political issue. So it depends on the ideology of the person who is going to be the Minister or the President."*

One way of encouraging and sustaining participatory governance and making it more immune to changes in government is to anchor it in a clear legal framework. This may be easier said than done, but it is worth reflecting on the possibility and preparing the ground for such a framework. A good example is the national health assembly process in Thailand, which is an integral part of the National Health Act 2007; this Act obliges the Thai government to fund its National Health Commission Office to organize the assemblies every year. This makes the assembly process more stable over time, even if there are changes in governments who may give different levels of support.

INTERSECTORAL COLLABORATION

The study objectives addressed in this section were to assess the status of intersectoral collaboration in health policy and programmes and the link between intersectoral collaboration and participatory policy-making, in view of strengthening both initiatives.

THE SUPREME COUNCIL FOR HEALTH AND FOOD SECURITY AS A PLATFORM FOR HIGH-LEVEL INTERSECTORAL COLLABORATION

To establish a structure for intersectoral collaboration in health policy-making, two supreme councils were formed in 2001, which were subsequently merged into the Supreme Council on Health and Food Security in the fourth National Development Plan (2005–2010). This Supreme Council was approved by Parliament through a law, which states that the President of the country must act as its head and the MoHME is to act as its Secretariat. The Supreme Council's objectives are to:

- Make policies for health promotion and food security,
- Review and approve programmes and actions in health promotion and food security,
- Define and monitor basic indicators of health and food security,
- Approve national health standards for general development programmes,
- Approve the programme of the public health and food security service,
- Approve the monitoring structure, and
- Establish coordination among relevant executive bodies for health and food security.

By the end of 2018, 15 meetings had been held, covering communicable diseases (e.g. HIV/AIDS, malaria, leishmaniasis), noncommunicable diseases, healthy edible oils, flour fortification, health education and promotion, healthy agricultural products, health equity, health of elderly people, early childhood development, sanitation, national health assemblies, and promotion of physical activity.

One of the Supreme Council's objectives is to facilitate high-level intersectoral cooperation to improve the quality of life and equity in health. One interviewee described its high-level patronage: *"There is a very progressive law in relation to the Supreme Council for Health and Food Security, which was passed by the Parliament, for the fact that the head is the President himself and nine to eleven ministers are present at the Supreme Council for Health."*

The Supreme Council thus includes the Ministers of Health and Medical Education, Agriculture, Education, Commerce, Sport and Youth, Industry, Trade and Mines, Welfare and Social Security, and the Interior; the National Standards Organization; the Environmental Protection Organization; and Iran Broadcasting.

The Secretariat, housed in the MoHME, ensures day-to-day collaboration with other sectors on various determinants of health. The Secretariat is also closely involved in joint commissions with other ministries and sectors on health topics. The consistent feedback given by representatives of other sectors who were interviewed for this review was that the presence of this Secretariat greatly improved cross-sectoral relations by dedicating a unit which served as a focal point within the MoHME for other sectors. In essence, intersectoral collaboration is initially based on building a relationship between sectors based on a common understanding of the issue at hand, the latter being a frequent barrier to collaboration. Having a MoHME unit (the Secretariat) with staff members specifically assigned to work with other sectors allows for steady and regular dialogue to construct such understanding jointly. One interviewee from the Ministry of Sport emphasized this point, *"One of our problems in the field of sport is that there has always been a conflict between those who studied in the field of sports and the medical community… The distance between us has been an attitude, so our beliefs did not allow us to get close together. And I would like to thank [the Secretariat of the Supreme Council] at the MoHME, who provide the environment that brings the sport and medical communities together".*

Besides being the implementing body of the Supreme Council, one of the key tasks of its Secretariat is to organize the national health assembly on a regular basis. The first Iranian national health assembly took place in 2017, and it has been conceptualized as a key platform for both participation and intersectoral collaboration. One interviewee highlighted, *"The community thinks about needs, the needs are…also [with] other sectors, and the point is that they are supported by the national health assembly, and this is the programme of the MoHME… This is the programme of Supreme Council [of Health and Food Security], so it is supported by political commitment."* By bringing together population groups to discuss health from their perspective, health is automatically viewed more broadly, going beyond the health sector – thereby making the health assembly platform an ideal mechanism for collaboration across sectors.

LOCAL LEVEL INTERSECTORAL COLLABORATION

Neighbourhood health councils and people's participation houses have been stimulating local intersectoral collaboration for years, with representatives of the Ministry of Education, the police force and local NGOs. In practice, at local level, the number of actors is limited and there is more familiarity among different stakeholders, allowing for an easier and more natural collaboration across sectors. Community health workers (the range of this type of work being done by either volunteers, urban health care workers, *behvarzes*, and others) regularly reach out to other sectors as part of their core tasks and have the distinct advantage of community trust on their side, further facilitating intersectoral collaboration.

Local intersectoral work is supported by provincial health and food security working groups established by the provincial councils of planning and development, headed by the provincial governor. With dedicated resources, these working groups bring together local work on the social determinants of health and report problems to the Supreme Council. They also attempt to address shortages of funding for operationalizing decisions.

IMPROVING INTERSECTORAL COLLABORATION

Intersectoral collaboration in all countries is hindered by lack of a common understanding of the concept as different sectors perceive health and collaboration differently. This was also found in our study. The result is often unclear roles and responsibilities and no clear lead sector, limiting the work that is done. Many of the interviewees from outside the health sector said that coordination should be improved. Coordination through joint budgets and sharing of data and information might be a solution, although it might be difficult to achieve in practice. As there is resistance to the issue, a formal agenda point on this topic may be useful to discuss in a Supreme Council meeting, in view of drafting clear rules and modus operandi of how joint budgets and data sharing should work. In addition, one interviewee suggested that third parties such as the Planning and Budget Organization or international organizations can play an important role in facilitating a solution on this topic.

At central level, much of the work on the determinants of health and intersectoral collaboration has been conducted in university research projects. The working groups supported by the Supreme Council might form links with decentralized intersectoral action through community health workers and neighbourhood institutions.

Strong personal relationships and trust appear to be the basis for cooperation, and these should be fostered, with the Secretariat of the Supreme Council as the focal point. Interviewees from all sectors agreed that collaboration should be formalized, with written roles and responsibilities. Memoranda of understanding have been used successfully in the past and could be used more often for the operationalization and monitoring of activities. An employee of the Road Maintenance Organization said, *"an MoU was signed between the Ministry of Health and Road Maintenance Organization. The main issue of the agreement is… improving the safety of villages for the people whose level of knowledge on safety is limited… The most important point in this Memorandum is the use of the existing capacities of the health houses. [The Road Maintenance Organization] executive officers in charge of…implementation of these plans were behvarzes. The issue that was obvious in the implementation of these plans was that in the past, [our] trainers were somehow alien to the people, while behvarzes are often well-known to the villagers, and a great intermediary for the two-way transfer of concepts."*

Memoranda of understanding and formal agreements between government institutions could also clarify the overlapping responsibilities of sectors. An example was given by a representative of the Ministry of Sports: *"We have a series of overlapping disciplines with the Ministry of Health that include sports nutrition, sports psychology and motor correction. These three fields overlap with the Ministry of Health, but according to the agreement we have together, the attempt is that the treatment section [is] to be assigned to the Ministry of Health and diagnosis, evaluation and the assistance to sports injury [is] to be assigned to the Ministry of Sports and Youth."*

WAY FORWARD

A thriving civil society and an overall culture of participation depend on the political climate in any country, and this study reaffirms these principles for the Islamic Republic of Iran. The stronger the presence of pro-participation government officials and the more interaction they foster with citizens, the more participation will become institutionalized and formalized. Participation and civic action are certainly not new to the Islamic Republic of Iran, yet there still exists overlaps and duplications among the different types of formal, semi-formal, and informal CSOs. More coordination is needed between the different participation initiatives to reduce fragmentation and channel volunteer enthusiasm and resources towards the common goals of the HTP. The local, provincial and national health assemblies potentially offer unique platforms for this coordination role.

This study confirmed that civil society in the Islamic Republic of Iran plays a valued mediator role between the state and the people; however, it is currently more of a one-way channel (from the people to the state). Creating a two-way channel with more government-initiated interaction with civil society actors for policy dialogue and consensus-building is currently a missed opportunity. Again, platforms such as the health assemblies could be more smartly used to create and maintain such a channel.

Capacity-building of civil society through the promotion of networks and technical support can help civil society to participate more meaningfully. If this meets an enabling environment for participation, which the Deputy Ministry for Social Affairs in the MoHME is working to establish, civil society and community voices can be better harnessed towards HTP goals.

Intersectoral collaboration functions fairly well, with the Secretariat of the Supreme Council on Health and Food Security being a key player for coordination across sectors and providing concrete, funded support for cross-sectoral matters. However, there is room for improvement, especially in terms of formalizing collaborations, putting together joint work plans and perhaps even pooling budgets cross-sectorally.

In conclusion, the potential to harness citizen's voice to move closer towards the collective goals of the HTP are not to be underestimated. Given the overall culture of motivated participation and structures which have been put in place during the past few years (e.g. health assemblies, Supreme Council for Health and Food Security, civil society networks), government actors have recently made good attempts at more systematically providing space for people's voice. Maintaining political will is the crucial factor which, if weakening, could dismantle inroads already made, especially in view of the uncertain macro-economic outlook with effects on the Islamic Republic of Iran.

The Iranian government should continue on its path towards the HTP, continue promoting the socialization of health through its Deputy Ministry for Social Affairs and tread the dual track of supporting participatory governance mechanisms while simultaneously working with civil society to build capacity and ensure that no one is left behind.

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CHAPTER 5
Health system reforms in the Islamic Republic of Iran: the influence of institutional arrangements

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KEY MESSAGES

During the past four decades, the Islamic Republic of Iran has implemented several major health system reforms to meet three overall objectives: improve access to primary health care (PHC) services, extend population insurance coverage as a means to improve financial protection and increase efficiency in the purchasing of health services.

Reforms to extend population access to PHC services in the Islamic Republic of Iran are widely acknowledged for their pro-poor orientation and innovative approaches centred on community health workers. Reforms were successful and have contributed to major improvements in maternal and child health outcomes. Implementation of reforms notably benefited from legislative endorsement of the Alma Ata Declaration and significant public finances. Some challenges were encountered in adapting the service delivery model to urban settings and in coordination among stakeholders, including the private sector.

The Islamic Republic of Iran has also undertaken reforms to extend population health insurance coverage such as the 2005 rural health insurance scheme and the 2014 extension to all remaining uninsured. Reforms were successful with coverage reaching near universal levels of 95% of the population in 2017. Institutional factors that facilitated these initiatives were a legislative act in 1994 that mandated universal coverage and strong political will, including from President Rouhani himself. Continued success will require addressing hindering factors, notably by ensuring that health insurance funds have sufficient administrative, managerial, financial, and technical capacity to cover new members.

Reforms to increase the efficiency of purchasing and provider payment methods for both primary and tertiary care services have faced many challenges. While policy initiatives were supported by legislative acts and initial budget transfers, implementation was hindered by difficulties in coordination because of changing power dynamics after the split in purchasing and provider functions, the lack of capacity in insurance funds to undertake the newly mandated strategic purchasing functions and concern about sustaining adequate financial resources for continued implementation due to both internal and external economic factors.

The 2014 Health Transformation Plan (HTP) had three objectives: improve the stability of financial resources for health, ensure financial protection against undue hardship due to paying out-of-pocket (OOP) for health and increase access to high-quality health services. Facilitating factors were high-level political support from the President and an initial injection of US$ 3 billion by the government in the first year of implementation. Hindering factors were perceived as due to insufficient coordination and involvement of technical experts in policy design and implementation, lack of documentation and understanding of the overall vision and increasing costs exacerbated by the high rate of inflation and economic sanctions.

The design and implementation of these reforms are inherently tied to the institutional and organizational landscape in the country. In the Islamic Republic of Iran, this landscape is complex. While formal legislation sets out strategic directions and is backed by strong political will, its translation into effective policies sometimes faces challenges due to the multitude of stakeholders in both the public and private sectors, with different institutional mandates and sometimes incompatible interests. The complexity is also due to the overlapping roles and responsibilities of some stakeholders and their many formal and informal ways of working. These should be fully coordinated to build shared interests, buy-in among stakeholders, alignment with other policies and system arrangements, and adequate technical, financial and managerial capacity in implementing institutions.

To better ensure the impact of health system reforms, facilitating factors should be leveraged and hindering factors minimized by considering policy options to: clarify the roles and responsibilities of each major actor within the health system, strengthen coordination structures and underlying communication and consultation processes, and build technical and managerial capacity to strengthen the design and implementation of reforms. Finally, there is a strong need for the development and documentation of a comprehensive reform strategy. This should include development of costed action plan and identification of stable and sustainable financing streams given the uncertain macro-economic environment.

INTRODUCTION

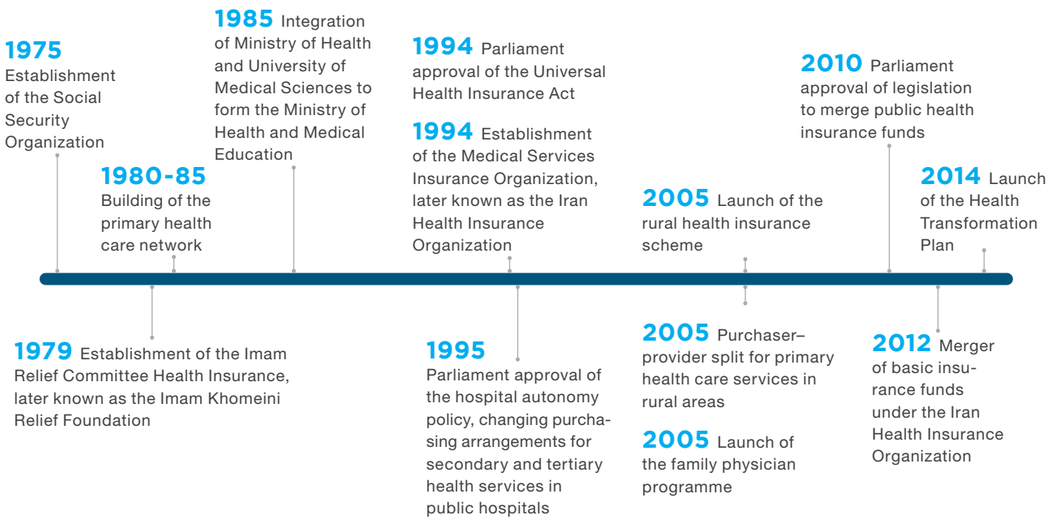
The Islamic Republic of Iran has undertaken several major reforms of its health system during the past four decades *(1,2).* Fundamental changes were made in policies and system arrangements to improve the performance of the health system and, ultimately, the health of the country's population. Health system reforms are challenging processes, not least because of the complex and dynamic nature of the underlying health systems themselves but also because they are deeply embedded in the socio-economic, political and institutional context in which they function and evolve *(3,4).*

The reforms in the country's health system were made against the backdrop of the Islamic Revolution in 1979, a decade-long war with neighbouring Iraq during 1980–1989, international economic sanctions resulting in frozen assets and trade embargoes, rising inflation, unstable energy markets, and civil strife and instability in neighbouring countries. The country has thus experienced difficult socio-economic and political constraints, which have shaped the course of various health system reforms.

Reforms are inherently tied to the institutions and organizations that guide the design and implementation of policy changes. Institutions consists of rules and norms that are both formal (i.e. official laws, policies, rules, and regulations enforced by national authorities) and informal (i.e. social norms, customs, traditions, current practices or procedures, and ways of working) *(3,5,6).* Institutions can thus be considered as the underlying "rules of the game" as they guide and influence the actions of an organization or group of individual stakeholders *(5).* In turn, organizations, driven by their own objectives and beliefs or values, can reinforce or modify institutions. Collectively, these interactions influence the direction and effectiveness of policy shifts.

The major reforms to the health system in the Islamic Republic of Iran (Fig. 5.1) have had three main objectives: to improve access to primary health care (PHC) services (especially in rural areas), extend population insurance coverage as a means to ensure financial protection and increase efficiency in the purchasing of health services.

FIGURE 5.1
KEY HEALTH SYSTEM REFORMS IN THE ISLAMIC REPUBLIC OF IRAN, 1975–2014



Noteworthy reforms include those to extend and improve the provision of basic public and primary health services to all Iranians through initiatives such as the 1983 establishment of the National Health Network, which rapidly improved the PHC system in rural areas immediately after the Islamic Revolution and the 2005 family physician programme, which further extended and strengthened service provision *(1,7–10).* The extensive primary care network and its innovative delivery model improved health in the Islamic Republic of Iran, such that it achieved Millennium Development Goals 4 and 5 on maternal and child mortality reduction *(11–13)*. Current reforms in PHC face challenges of increasing urbanization, changing lifestyles and an evolving epidemiological burden *(10).*

Other notable reform efforts were in the purchasing of health services. Reforms for secondary and tertiary health services in public hospitals were initiated in 1995 and for PHC services in rural areas in 2005, but faced challenges because of flaws in policy design and underlying institutional factors hindering the strategic purchasing of services *(9,14).* In contrast, reforms to extend population insurance coverage, such as the launch of a rural health insurance scheme in 2005 and the extension of health insurance to all the remaining uninsured in 2014, have been largely successful with coverage reaching near universal levels of 95% of the population in 2017 (see Chapter 2). Current challenges in insurance arrangements consist of the fragmentation of pools of funds, lack of modern performance-based payment policies and ensuring the financial sustainability of the reforms (see Chapters 2 and 3) *(15–18).* Last but not least, the government launched a Health Transformation Plan (HTP) in 2014, building on previous reforms to achieve universal health coverage (UHC) by 2025 *(1,2,19).*

The reforms were all made in an institutional and organizational landscape that is complex, not least because of many formal and informal rules that guide a multitude of actors. PHC has predominantly been both publicly provided and financed by the Ministry of Health and Medical Education (MoHME), while secondary and tertiary level care is delivered and sometimes also financed by public providers (see Chapter 3). Private providers play an increasingly important role in primary care and especially in specialist services in urban areas. Private financing, largely from household out-of-pocket (OOP) payments, accounts for almost two fifths of current health spending and is the second largest source of health financing in the country *(20).* There are also multiple public actors financing health with arrangements fragmented among four main public health insurance funds and 17 smaller funds linked to state-run entities (see Chapter 2) *(15).* Thus, multiple stakeholders play a role, oftentimes overlap, and do not necessarily share common interests – operating in a context with historically weak coordination mechanisms *(21).*

The overall aim of this chapter is to provide an overview of key health system reforms in the Islamic Republic of Iran between 1975 and 2014, paying particular attention to the institutional context in which the reforms were implemented. Specific chapter objectives are:

- To provide an overview of the institutional and organizational landscape of the health sector by identifying the key actors, their responsibilities and general governance arrangements;
- To undertake a broad assessment of major health system reforms by identifying their objective(s) and key aspects of their design and implementation, including the organizations involved and the underlying institutional factors that influence their effectiveness; and
- To propose policy options to better ensure that the design and implementation of future reforms will achieve their intended objectives.

The chapter is based on an institutional analysis, which involved identifying the organizations involved in health reforms and identifying institutional factors to assess whether these facilitated or hindered the design and implementation of reforms (e.g. whether laws support the policies, system strengths or weaknesses, shared or conflicting interests, collaborative or individualistic ways

of working, and governance and coordination opportunities or challenges) *(5).* The analysis was based on a desk review of published literature and official government documents (e.g. reports, laws, regulations, media articles) and was further informed by semi-structured interviews with representatives of Parliament, the Budget and Planning Organization, MoHME, health insurance funds, and provider associations (Box 5.1). A narrative synopsis was subsequently developed for each reform, together with systematic and critical reflection of institutional aspects that facilitate or hinder the implementation of reforms based on global knowledge (Box 5.2).

Box 5.1: Overview of analytical methods

Desk review of published literature: Evidence was gathered through a literature search across three databases (i.e. Pubmed/Medline, Web of Science and Scientific Information Database) and Google Scholar. Searches were conducted for English and Farsi language literature published up to 2017. Both published and grey literature were included. The search strategy varied according to the functionality of each database's search engine with the following search terms: "institution", "governance", "stakeholder", "capacity building", "health care reform", "health sector reform", and "health transformation plan". The search was supplemented by reviewing the reference list of the literature identified through the database search and by recommendations made from experts in the field of health systems research. Titles and abstracts were screened for inclusion, and the full-text was reviewed to extract relevant data for analysis and discussion by authors.

Semi-structured interviews: Evidence was gathered through semi-structured interviews with representatives of the following institutions: Parliament, Ministry of Health and Medical Education, Budget and Planning Organization, health insurance funds, providers' associations, and academia. Consent was obtained from all participants and interviews were recorded, transcribed and analysed using a framework analysis method.

Box 5.2: Understanding the institutions underlying health reforms – key factors that facilitate success

Institutions are particularly critical for the success of health reforms because they influence the design and implementation of policy changes and thus affect the impact of reforms *(22).* In other words, institutions are important because they provide the capacity for development. The institutional context of a country must be understood in order to assess the practicality, viability and sustainability of a reform, and thus ensure that appropriate institutions exist that are capable to support the planned changes.

Many approaches have been used to assess institutional contexts *(23)*. A well-established framework involves identification and analysis of four factors: control (formal and informal rules), associations (formal and informal relationships), actions (practices, ways of working) and meaning (beliefs, norms or social values). Despite broad consensus on the importance of institutions, there is no blueprint for institutional reform in a country, and the capacity to effectively implement health reforms is highly context-specific *(24).*

Drawing across the global knowledge base, the following institutional factors have been found to be conducive to the effectiveness of reforms:

- Governance space: Political stability, the absence of conflict, regulatory tools to control corruption, economic growth, and accountability mechanisms will help to create an enabling environment for reforms to be effectively designed and implemented.
- Political will and consensus: Strong motivation of key decision-makers and of stakeholder groups will help to ensure that reforms are translated into action that is sustained over time.
- Formal legislation: High-level decrees, laws, policies, regulations, or codes of conduct will serve as official directives and thus help to ensure that declared reforms or rights are protected by law and related policy actions are carried out.
- Supporting resources: Financial, physical and human resources, including building the capacity of implementing institutions, will help to ensure that declared reforms do not remain an empty promise and materialize.
- Coordination and communication: Mechanisms for coordination and channels for communication among all stakeholders will help to ensure robust policy design and implementation, foster understanding and buy-in and increase accountability.
- Direction: A clear and comprehensive long-term strategy for implementing the reform that realistically considers a country's political, macro-economic, institutional, social, and cultural context will help to ensure better understanding of the overall aim of the reform.

Authors' adaptation *(22,25–27)*

THE HEALTH SECTOR LANDSCAPE IN THE ISLAMIC REPUBLIC OF IRAN

The institutional and organizational landscape of the health system in the Islamic Republic of Iran is complex, with many actors carrying out multiple responsibilities and guided by formal rules as well as informal ways of working. These complex interactions take place within the country's public sector management structures and overall governance arrangements. Based on latest values of six global governance indicators (i.e. voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption), the country has significant room for improvement, although some progress has been made over time *(25,28)*.

FORMAL LEGISLATION UNDERLYING HEALTH SYSTEM REFORMS

Six formal legislative pieces, i.e. written laws or policies enforced by national authorities, can be considered the foundation of all health reforms in the country: (i) the Constitution, amended and adopted in 1979, which recognizes health as a fundamental human right; (ii) Parliamentary endorsement in 1984 of the 1978 Alma Ata Declaration, which catalysed the establishment of the country's PHC network; (iii) six consecutive 5-year National Development Plans (NDPs) since 1989, which set out broad macro-fiscal and socio-economic strategies, including for health; (iv) the Universal Health Insurance Act, approved by Parliament in 1994, which mandates universal insurance coverage; (v) "Iran's vision for 2025", which was a strategic document developed in 2003 outlining orientations for the health sector; and (vi) "mega-health policies", which consisted of 14 high-level health policies decreed by the Supreme Leader of the Islamic Republic of Iran in 2014.

The country's strong commitment to improving the health of its population underlies all its health reforms. This commitment can be traced back to its Constitution, which embraces the principles of equity and justice and recognizes health as a fundamental human right. Commitments to health are also reflected in the 5-year NDPs, which set out broad directions for macro-fiscal and socio-economic policies and are the basis for subsequent health sector policies, such as ensuring equitable access to health services or improving financial protection. Table 5.1 summarizes the broad direction of each 5-year NDP and its associated policy emphasis for the health sector.

Other legislative acts that significantly influenced health reforms in the country was the 1984 endorsement by the Iranian Parliament of the 1978 Alma Ata Declaration. This catalysed public investment in a PHC approach for strengthening the Iranian health system, for which the country has received global recognition for its innovative community-oriented delivery model for basic public health *(26)*. Another important legislation underlying health reforms was the Universal Health Insurance Act, approved by the Iranian Parliament in 1994. This Act represents the beginning of the country's drive towards UHC as it mandated insurance coverage for all its citizens. It has notably resulted in the creation of the Medical Services Insurance Organization (MSIO) (now known as the Iran Health Insurance Organization (IHIO)) and of the High Council for Health Insurance (HCHI), which is responsible for developing policies on population insurance coverage, medical tariffs, purchasing of health services, and provider payment methods. It has further served as the cornerstone for publicly financed extensions of health insurance in rural areas in 2005 and nationwide in 2014.

Two other formal institutional pieces greatly influenced the design and implementation of health reforms in the Islamic Republic of Iran. "Iran's vision for 2025", prepared by the government in 2003, sets the long-term goal of making the health system more efficient and equitable, thereby improving overall population health. The vision advocates consideration of health in all policies and accountability and innovation in the continued development of the health system *(29)*. In addition, in 2014, the Supreme Leader of the Islamic Republic of Iran announced 14 high-level health policies, commonly referred to as "mega-health policies" *(30)*. These policies defined the principles underlying the country's health system: social justice, public participation and collaboration among sectors. The

TABLE 5.1:
5-YEAR NATIONAL DEVELOPMENT PLANS (NDPS): BROAD DIRECTIONS FOR THE MACRO-ECONOMY AND SPECIFIC POLICY EMPHASIS FOR THE HEALTH SECTOR

Source: Authors' analyses of 5-year NDPs

5-year NDPs*	Broad directions for the macro-economy	Specific policy emphasis for the health sector
1979–1988	Emphasis on government involvement in planning and organizing macro affairs, especially in regard to social justice and economic and political independence	• Scaling up the number and building the capacity of the health workforce and health facilities • Greater public investment in the health sector • Improvement of health outcomes through a focus on public health and PHC
First NDP 1989–1993/94	Reconstruction of the industrial sector, extension of social services and reduction of imbalances in the distribution of resources	• Physical extension of health facilities, particularly in the public sector • Completion of the PHC network • Development of standards for health promotion
Second NDP 1995–1999/2000	Stabilization of the macro-economy and reduction of the financial burden of economic transitions on society	• Extension of public health insurance coverage • Strengthened capacity of health facilities, including the outsourcing of health services
Third NDP 2000–2004/05	Structural and institutional reforms for economic liberalization and privatization	
Fourth NDP 2005–2009/10	Continued emphasis on liberalization and privatization, stressing greater reliance on market forces	• Promotion of equity in access to and financing of health • More efficient and higher-quality provision of health services • Recognition of determinants of health
Fifth NDP 2011–2015/16	Public sector reforms oriented towards equity and social justice, with special attention to the poor and vulnerable	
Sixth NDP 2016–2020/21	Public sector reforms to increase transparency and stability in order to attract investment and foster development of the country	• Endorsement of the values underlying UHC • Transformation of the health system to improve the stability of financial resources for health, ensure financial protection against undue hardship due to paying OOP for health and increase access to high-quality health services

*The 5-year NDPs began in 1989; the dates are conversions from the Iranian solar calendar, which covers 21 March to 20 March.

aims of the policies were to increase sustainability in health financing, quality of services, availability of infrastructure and supplies, and efficiency in managing demand for and supply of health services.

KEY STAKEHOLDERS OF THE HEALTH SYSTEM

In the Islamic Republic of Iran, the institutional landscape was reorganized after the 1979 Revolution to ensure the effective provision of basic social services to the population. Table 5.2 provides a current overview of the key stakeholders either directly operating in or having an indirect influence on the functioning of the health system. Fig. 5.2 further shows their structural relations.

The Supreme Leader of the Islamic Republic of Iran, as the highest-ranking religious and political leader, oversees the functioning of the government (including the MoHME), Armed Forces and

legislative and judicial systems. The President, elected directly by the public, is the next highest-ranking political official and is in charge of national affairs, including appointing ministers and administering laws and acts approved by Parliament and supported by the Supreme Leader. The current President Rouhani has declared health a priority for the country's development and has notably promised health care for all Iranians as part of his signature reform known as the Health Transformation Plan (HTP) *(19,21,31).*

Iran's legislative body is the *Majlis Shoraye Islami* (Parliament), which formulates policy and is the platform for debate and discussion. It is responsible for enacting laws (including those for health) and approves the 5-year NDPs from which health-specific policies are derived.

The Budget and Planning Organization (previously known as the Management and Planning Organization) plays a key role in strategic planning and monitoring of the country's development and prepares the 5-year NDPs. According to those plans, the Budget and Planning Organization proposes annual national budgets, including allocations to the health sector, which are approved by Parliament. In turn, the Ministry of Economic Affairs and Finance is responsible for executing the proposed budget and transferring public funds to the health sector.

The MoHME is the steward of the overall health system and is responsible for regulation, education, purchasing, and provision. In coordination with other bodies (e.g. the Iranian Medical Council), the MoHME regulates the public and private sectors in terms of standard setting, licensing of medical professionals and the production and distribution of pharmaceuticals. Perhaps unique to the Islamic Republic of Iran, the MoHME has also been responsible since 1985 for the education of medical personnel, including training, capacity-building and undertaking research. Furthermore, the MoHME also purchases and provides basic public health and primary health services through its PHC network under the oversight of Provincial Medical Universities, which act as official branches of the MoHME at provincial level.

Other ministries that operate in the health system are the Ministry of Cooperative, Labour and Social Welfare (formerly three separate ministries: Ministry of Cooperatives, Ministry of Labour and Social Affairs and Ministry of Welfare and Social Security) and the Ministry of Defence. Both ministries are involved in the purchasing of health services. The former hosts the Social Security Organization, whose members are mainly those in the formal private sector, and which previously had oversight over the Iran Health Insurance Organization, whose members were largely civil servants and rural residents at that time. The Ministry of Defence purchases health services for members of the Armed Forces and their dependents.

In terms of financing the health system, there are four main public health insurance funds: the Iran Health Insurance Organization (IHIO), the Social Security Organization (SSO), the Armed Forces Medical Services Insurance Organization (AFMSIO) and the Imam Khomeini Relief Foundation (IKRF). Population coverage levels have evolved over time, such that 95% of the population was covered in 2017 (see Chapter 2). IHIO mainly covers permanent civil servants, rural residents, the informal sector, the self-employed, and other socially vulnerable groups (e.g. martyrs, clergy, the disabled, and university students), who represented 43% of the population in 2017. SSO is similar in size, covering 52% of the population and predominantly those in the formal private sector, the self-employed and other wage-earners. SSO also owns health facilities and thus not only purchases but also provides services for its members. The AFMSIO covers military personnel and also provides services to its members through its own hospitals. The IKRF is a charity organization that covers the poor and vulnerable. In addition, private insurance funds cover a small but growing proportion of the population, providing health services that are complementary to the public benefit package to wealthier populations. All health insurance funds are governed to a greater or lesser extent by the High Council of Health Insurance (HCHI), a decision-making body responsible for developing policies concerning population insurance coverage, medical tariffs, purchasing of health services, and provider payment methods (see Chapter 3).

TABLE 5.2:
KEY STAKEHOLDERS WITH A DIRECT OR INDIRECT INFLUENCE ON THE FUNCTIONING OF THE HEALTH SYSTEM

Stakeholder	Responsibilities
Supreme Leader	• Oversees the functioning of the government, Armed Forces and legislative and judicial systems • Develops high-level decrees or policies from which health-specific legislation or policies are derived
President	• Heads the government • Administers the national budget, including allocations to health • Appoints ministers, subject to the approval of Parliament
Parliament	• Approves ministers appointed by the President • Oversees the development, approval and implementation of general and health-specific legislation, including annual budget allocations • Approves the 5-year National Development Plans (NDPs)
Budget and Planning Organization	• Prepares the national budget and decides on allocations to all branches of the government and ministries, with final approval by Parliament • Develops the 5-year NDPs • Member of the HCHI, the decision-making body for health policies
Ministry of Economic Affairs and Finance	• Collects and manages government revenues • Executes the national budget according to decisions proposed by the Budget and Planning Organization and approved by Parliament • Member of the HCHI
Ministry of Health, and Medical Education (MoHME)	• Acts as steward of the entire health system and responsible for regulation, education, purchasing, and provision • Chairs the HCHI
Ministry of Cooperative, Labour and Social Welfare	• Hosts the Social Security Organization, one of four main public health insurance funds • Member of the HCHI
Ministry of Defense	• Hosts the Armed Forces Medical Services Insurance Organization, one of four main public health insurance funds
High Council of Health Insurance (HCHI)	• Decision-making body mandated by the government to ensure universal access to health insurance • 12-member council, chaired by the MoHME, responsible for developing health policies on population insurance coverage, medical tariffs, purchasing of health services, and provider payment methods
Iran Health Insurance Organization (IHIO)	• One of four main public health insurance funds covering permanent civil servants, rural residents, the informal sector, the self-employed, and other socially vulnerable groups. Funded by contributions from its members, their employers and the government. Under the oversight of the MoHME, previously under the Ministry of Cooperative, Labour and Social Welfare (then known as the Ministry of Welfare and Social Security). • Purchases health services from the MoHME and the private sector • Member of the HCHI

TABLE 5.2: (CONTINUED)
KEY STAKEHOLDERS WITH A DIRECT OR INDIRECT INFLUENCE ON THE FUNCTIONING OF THE HEALTH SYSTEM

Stakeholder	Responsibilities
Social Security Organization (SSO)	• One of four main public health insurance funds covering the formal private sector, the self-employed and other wage earners. Funded from contributions from its members, their employers and the government. Under the oversight of the Ministry of Cooperative, Labour and Social Welfare. • Provides secondary and tertiary level outpatient and inpatient services through its own clinics and hospitals • Purchases health services from the MoHME, the private sector and its own health facilities • Member of the HCHI • Produces pharmaceuticals
Armed Forces Medical Services Insurance Organization (AFMSIO)	• One of four main public health insurance funds covering military personnel. Funded by member premiums and government subsidies. Under the oversight of the Ministry of Defence. • Purchases health services from the MoHME, the private sector and its own health facilities • Member of the HCHI
Imam Khomeini Relief Foundation (IKRF)	• One of four main public health insurance funds covering the poor. Funded by charitable contributions and government subsidies. • Purchases health services from the MoHME • Member of the HCHI
17 other health insurance funds	• Smaller health insurance funds run by state-owned entities covering their employees with a supplemental and more generous benefit package • Purchases health services from the MoHME and the private sector
Health workers	• Provides health services to the population in the public and/or private sectors. Public sector workers in MoHME-affiliated facilities are considered civil servants and are salaried by the MoHME and contracted by the main public health insurance schemes. Private sector workers are a growing group, and dual practice is prevalent.
People	• Clients of the health system, who often have to pay for health services • Contributors to decision-making by voicing needs and expectations

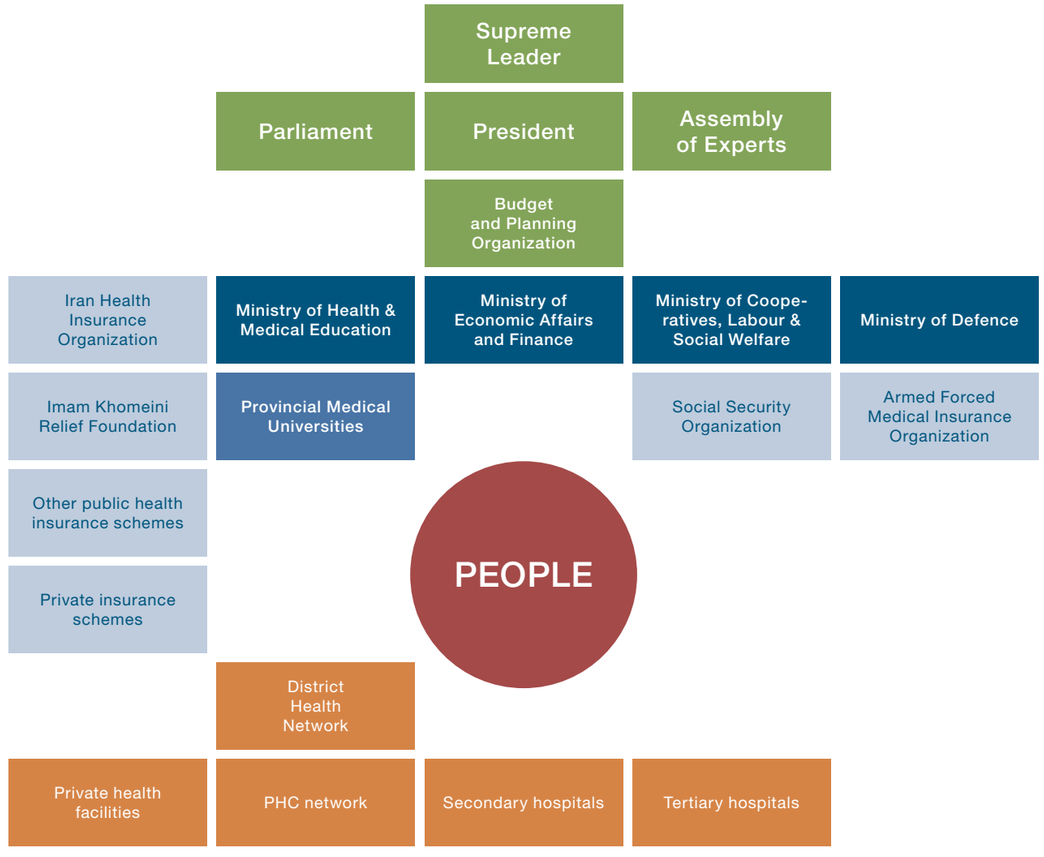
Public health and primary health services are predominantly publicly financed and delivered through the PHC network run by the Provincial Medical Universities of the MoHME, while secondary and tertiary care are provided by MoHME-affiliated hospitals and those run by the SSO, the AFMSIO or the private sector and are funded through public and private insurance schemes and by OOP payments. The private sector is playing a growing role in service delivery and financing, particularly for secondary and tertiary care for wealthier populations residing in urban areas, and is also heavily involved in the production and sale of pharmaceuticals.

There are a number of other bodies operating in the health system. Specialized councils and independent organizations are involved in the development, regulation and implementation of health policies, particularly for food and drugs. These bodies include the Supreme Council for Health and Food Security, the Food and Drug Organization and the Blood Transfusion Organization. Nongovernmental organizations also play a role, particularly in advocacy, service provision and regulation (see Chapter 4). Finally, the Iranian Medical Council is responsible for licensing, authorizing and registering all health care professionals, and the Iranian Nursing Organization performs the same role for nurses.

It is clear that there are a multitude of stakeholders operating in the Iranian health system. The landscape is characterized by some overlap of roles and responsibilities, incompatible interests and/or a lack of shared interests, any of which may give rise to challenges in the design and implementation of reforms *(21)*. Reforms are further affected by the ways in which these stakeholders interact, both formally and informally. Although some coordination mechanisms exist within and beyond the health system, they appear not to be fully supported with adequate processes for communication, consultation, dialogue or decision-making *(21)*.

Well-established coordination mechanisms are essential to foster trust and build shared interests for improving the health system. Some structures like the HCHI are meant to foster collaboration and coordination but do not yet fully overcome longstanding tensions among stakeholders (e.g. ministries, health insurance funds and health providers) *(17)*. Decision-making in the health system of the country, particularly in regard to the purchasing of health services, has also been noted to be in need of strengthening in order to be more systematic, evidence-based, inclusive and transparent (see Chapter 3).

FIGURE 5.2:
THE HEALTH SECTOR LANDSCAPE IN THE ISLAMIC REPUBLIC OF IRAN



MAJOR HEALTH SYSTEM REFORMS IN THE ISLAMIC REPUBLIC OF IRAN

The Islamic Republic of Iran has implemented several major health system reforms with three overall objectives: improve access to PHC services, extend population insurance coverage as a means to ensure financial protection and increase efficiency in the purchasing of health services. For each objective, we identified specific policy initiatives, described their objectives, identified institutional factors that influenced their design or implementation, and assessed how they might have facilitated or hindered the effectiveness of policies.

EXTENDING ACCESS TO PRIMARY HEALTH CARE SERVICES

The Islamic Republic of Iran has long been recognized internationally for its innovative approach to PHC *(26).* During the past four decades, pro-poor public policies have extended population access to basic health services. The major policy interventions were the establishment of the PHC network during the 1980s, changing the service delivery model with the family physician programme in rural areas in 2005 and its subsequent extension to urban areas in 2011 *(1,8,10,26,32).* These efforts have origins in the 1978 Alma Ata Declaration, which was endorsed by the Iranian Parliament in 1984 *(10).* A PHC approach, with a focus on rural and underserved populations, has thus been fundamental to strengthening the Iranian health system and has benefited from governmental financial support *(10).*

Extension of basic health services in the country began in the early 1980s and continued through the 1990s *(1,8,10).* Services were initially delivered through an innovative model centred around community health workers, known as *behvarzes*. These individuals were formally trained for two years and supervised by a general physician *(33).* *Behvarzes* played a gate-keeping role as the first point of contact with the health system in rural areas. This community-oriented model contributed to substantial improvements in several health outcomes: reducing child and maternal mortality, increasing life expectancy at birth and improving family planning outcomes *(34).*

By 2005, approximately 25 years after the establishment of the PHC network, new challenges emerged due to the growing burden of noncommunicable diseases and increased expectations of the population demanding access to higher-level specialist care *(7,13,35).* This led to the family physician programme, which changed the service delivery model, such that family physicians or general physicians were now the first point of contact, taking over the gatekeeping role previously played by *Behvarzes*. Family physicians also offered more comprehensive primary care, with a larger health team of nurses and midwives and and with a greater emphasis on treatment. The programme was implemented in 2005 at the same time as a new rural health insurance scheme (see Chapter 2) and changes to purchasing arrangements, with the IHIO now responsible for financing primary care services in rural areas (see Chapter 3).

The programme received legislative support from Parliament, which passed a law making the MoHME responsible for establishing a referral system through the family physician programme *(10).* The policy was also reflected in the fourth 5-year NDP. Such endorsements ensured that the policy was translated into action. Furthermore, the programme benefitted from financial support from the public budget (although this has been claimed to be inadequate and not based on robust calculations) and an existing and well-functioning PHC network in rural areas *(32,36).* Difficulties arose from the lack of developing a reform strategy and doing so in a consultative manner, which did not lead to reconciling different institutional interests of the two main implementers. The aim of the MoHME was to promote health by extending primary care (mainly preventive services) through a family physician referral model in rural and urban areas, while the aim of the IHIO was to reduce the financial risk associated with accessing curative services in rural areas *(9).* In addition, the implementation approach used was reported to result in inadequate capacity-building and buy-in from both the IHIO, as the purchaser, and health workers, as the providers. Both were not adequately equipped to handle new responsibilities *(9,32).*

The family physician programme was intended to be implemented in both rural and urban areas; however, while it is found comprehensively in rural areas and has positive outcomes, its implementation was challenged in urban areas *(14).* The difference is likely due to the fact that the PHC network was already well-established and the population accepted community-oriented care in rural settings, whereas the PHC network was less developed and private sector providers were well-established with population preferences for curative care models in urban settings *(10).* Pilot tests in urban areas in the early 2000s were not scaled up, and the plan was abandoned in 2004 when the MoHME lost financial control at the time when the IHIO was separated from the MoHME and placed under the newly established Ministry of Cooperative, Labour and Social Welfare. Interest in extending the family physician programme to urban areas was renewed in 2011 by the MoHME, but difficulties were again encountered, and the initiative was stopped after four months when the Minister of the MoHME changed *(14).* In 2014, the programme was yet again revitalized, particularly in pilot tests in the two provinces of Fars and Mazandaran.

Reforms to extend PHC services, from the initial network centred around *behvarzes* to delivery models led by family physicians, met both facilitating and hindering factors (Table 5.3). The main facilitating factors were legislative support, budgetary support and alignment with an existing and well-functioning PHC network in rural areas. The main hindering factors were the differing institutional interests of the two main implementers, a top-down implementation approach and ill-designed contracts with family physicians that did not create positive payment incentives for health providers *(10,14).* In urban areas, there was misalignment with the system on the supply-side given a less established PHC network. Furthermore, a strong private sector who opposed the programme as it restricted their access to consumers, and the preferences of the population for specialist curative care also further hindered implementation.

TABLE 5.3:
INSTITUTIONAL FACTORS UNDERLYING REFORMS TO EXTEND ACCESS TO PRIMARY CARE SERVICES

Facilitating factors	Hindering factors
• Political commitment with endorsement of the policy in the fourth, fifth and sixth 5-year NDPs • Legislative support with development of a national plan for the extension of the PHC network • Financial support with PHC financed by the public budget, particularly in the early years of the extension of its network • Technical support with the formation of a special council for the promotion and extension of the PHC network • System readiness with the extensive PHC network already existing in rural areas • Population acceptance of community-oriented care in rural areas • Alignment with the launch of the rural health insurance scheme as the means for further ensuring financial access	• Lack of developing an overall strategy in a consultative manner led to incoherence in the policy goals of the two main implementers (MoHME and IHIO) and coordination challenges • Financial deficits given an underestimation of the funds required due to a lack of robust calculations • System misalignment with a less well-developed PHC network in urban areas hindered scale up in these areas • Conflicting interests and lack of engagement with the powerful private sector in urban areas contributed to their resistance to the policy • Lack of engagement with public health providers contributed to ill-designed contracts and unintended provider behaviours • Lack of engagement with urban residents to promote awareness of the community-oriented referral model focused on preventive care led to a lack of its buy-in in urban areas • Unstable political support with changes at ministerial level hindered scale up in urban areas

HEALTH INSURANCE REFORMS

Extending coverage

Over the past 30 years, the Islamic Republic of Iran has been implementing major health insurance reforms to extend coverage across its population to reach universal levels. The country has made considerable progress with an estimated 95% of its population affiliated with an insurance fund in 2017 (see Chapter 2). These efforts have origins in the Universal Health Insurance Act passed by Parliament in 1994. At that time, only an estimated 60% of the country's population was covered, which was of great concern for the Iranian government *(37).* The Act represents the beginning of the country's drive towards UHC and can be considered the cornerstone for insurance policies to extend health insurance coverage to rural populations in 2005 and to the remaining uninsured population in 2014.

In 2005, the government initiated a rural health insurance scheme in recognition of noted coverage gaps in rural areas and falling short of reaching universal coverage. The aim was to extend insurance coverage to all rural residents with premiums subsidized by the government. The scheme was supported by Parliament, with its passing of the Rural Health Insurance Act in 2005. It was launched with other policies, notably those concerning the family physician programme and changes in the purchasing arrangements for PHC services as part of broader efforts to extend access and improve affordability. The rural health insurance scheme is considered to be relatively successful as it provided coverage to approximately 20 million more individuals *(38).* Current policy concerns are the sustainability of financing to cover benefits and ensuring alignment with service delivery to meet the increased demand for health services.

While the rural health insurance scheme greatly extended coverage, nearly a fifth (18%) of the population still remained uninsured in 2013 (based on household survey data), leading to another call for universal coverage made in 2014 with President Rouhani issuing statements in the media to encourage everyone who was not insured to register for coverage. Under this signature policy, colloquially known as "Rouhani-care", the uninsured population was to be covered by the IHIO with premiums subsidized by the government *(39,40).* This initiative similarly has origins in the 1994 Universal Health Insurance Act and was further supported by Parliamentary approval of the fifth and sixth 5-year NDPs, in which relevant articles stipulated that extension of coverage be supported by funds redirected from targeted subsidies. Rouhani-care resulted in another major increase in coverage with an additional 8 million more people covered between 2013 and 2017 (see Chapter 2). Similar to the rural health insurance scheme, current policy concerns are the sustainability of financing to cover benefits and ensuring alignment with service delivery to meet the increased demand for health services.

Table 5.4 lists factors identified as having had an effect on the implementation of reforms to extend insurance. The reforms benefited from strong political will, supporting legislation, public financing, and convergence with social values. These facilitating factors helped to ensure that the policy goals were translated into action and that resources were available to support those actions and contribute to greater population coverage. Nevertheless, other factors seem to have hindered the reforms from having an even greater impact. For example, top-down implementation tends to stifle collaboration and coordination and often overlooks the building of capacity and resources. Health insurance funds were not fully equipped to cover new members, which was exacerbated by the fragmentation of health insurance arrangements. In addition, lack of robust calculations led to underestimation of the funds required for the plan such that insurance funds reportedly struggled to maintain and sustain coverage (see Chapter 2).

Reducing fragmentation

Another major insurance reform effort in the Islamic Republic of Iran was an attempt to merge many of the existing public health insurance funds into one

TABLE 5.4:
INSTITUTIONAL FACTORS UNDERLYING REFORMS TO EXTEND HEALTH INSURANCE COVERAGE

Facilitating factors	Hindering factors
• Political will with President Rouhani leading a call for universal coverage • Supporting legislation with the 1994 Universal Health Insurance Act mandating universal coverage and reflection in 5-year NDPs • Budgetary alignment with the allocation of funds to support the rural health insurance scheme and stipulation that a percentage of revenues from targeted subsidies would be used to support the extension of coverage in 2014 to all the remaining uninsured • Population support given convergence with Islamic social values of solidarity and wide recognition of health as key to development	• Top-down implementation contributed to a lack of buy-in and insufficient administrative, managerial and technical capacity of health insurance funds to cover new members • Fragmentation of insurance arrangements resulted in weakened ability to strategically purchase services to cover new members • Underlying system inefficiency in regard to a generous benefit package, purchasing arrangements and integration of demand-side and supply-side subsidies • Lack of financial support given the allocated budget was not based on robust estimations and was insufficient to cover and sustain increased population coverage

national health insurance fund *(16).* The aim was to reduce fragmentation in insurance arrangements given a landscape of four main public health insurance funds (many of which have multiple subschemes), 17 other schemes run by various state entities and several private insurance schemes providing complementary health services that are not publicly funded. The intent was to improve efficiency and equity in insurance arrangements as fragmentation had resulted in duplication, gaps and disparities in coverage *(15,16,37,41).* It was considered that greater pooling of risks and resources would facilitate cross-subsidies and thus better ensure the financial sustainability and equity of coverage and improve efficiency by increasing the purchasing power of health insurance funds.

Risk-pooling reform was based on various pieces of legislation, starting with a 2001 proposal that aimed to unify the social security system and approved by Parliament in 2004[1]. This proposal was further reflected in the fourth 5-year NDP such that the IHIO (then MSIO) moved in 2005 from the MoHME to the Ministry of Cooperative, Labour and Social Welfare, which also housed the SSO.

[1] Following the third 5-year NDP, a Comprehensive Organizational Structure of the Social Security System (COSSSS) was proposed to Parliament in 2001, which would ensure unified stewardship of the social security system. In 2004, Parliament enacted the COSSSS and the Ministry of Cooperative, Labour and Social Welfare (then the Ministry of Welfare and Social Security) was established and given all responsibilities and related authorities in insurance.

Despite this change in governance, there was no physical or functional merger between the IHIO (then MSIO) and the SSO or within individual funds themselves, and the change was thus superficial *(16).* Nevertheless, interest in reducing fragmentation in insurance arrangements was renewed in 2010, when Parliament passed a law stipulating a structural merger of all public health insurance funds (except the AFMSIO). The initiative was further supported in the fifth 5-year NDP. Two years later, in 2012, some smaller insurance funds that provided a basic level of coverage were merged under the MSIO, which was formally reconstituted as the IHIO.

Since 2012, no further attempts have been made to structurally reduce fragmentation, although the HCHI has attempted to functionally integrate funds in terms of ensuring policy coherence (e.g. particularly for insurance contribution rates, the benefit package, cost-sharing, and public provider tariffs) (see Chapter 3). Other efforts to improve the risk-pooling of insurance funds, such as formal redistribution of risks or development of a comprehensive database, have not yet been undertaken (see Chapter 2). In addition, following a Parliamentary Act, the IHIO moved back under the oversight of the MoHME in 2016. Insurance arrangements remain the subject of ongoing debates and are unlikely to be resolved in the short term *(15,16,37).*

Reforms to reduce fragmentation of insurance arrangements have unfortunately not been implemented as intended because of various political, financial and organizational factors (Table 5.5). Despite facilitating factors such as legislative support reflected by the 2001 legislation for the social security system and the 5-year NDPs, there continues to be lack of political will and lack of motivation in the health insurance funds themselves, the majority strongly opposing a merger. Health insurance funds are used to operating with financial and organizational autonomy and are reluctant to lose that autonomy in a merger *(16).* The insurance funds were not consulted in the development of the legislation, which further contributed to their resistance and weak policy design of financial, organizational and managerial aspects. Furthermore, there was a lack of clarity about which stakeholder should lead implementation. The 17 smaller but better-resourced insurance schemes were also unwilling to assume financial responsibility of the four main public funds (especially the IHIO, IKRF and AFMSIO) given these rely substantially on the government budget for funding and faced financial constraints. Members of these 17 schemes were also concerned as they did not want to lose their entitlements to a supplemental and more generous benefit package.

PURCHASING AND PROVIDER PAYMENT REFORMS

Over the years, the Islamic Republic of Iran has experimented with purchasing and provider payment arrangements, but these have unfortunately faced challenges in their design and implementation. Two initiatives concerned a 1995 hospital autonomy reform, in which purchasing arrangements for secondary and tertiary health services in public hospitals were changed from line item budget transfers to fee-for-service (FFS), and a 2005 purchaser–provider split for PHC services in rural areas, in which the MoHME no longer assumed both purchasing and providing functions and the IHIO now carried out the purchasing function based on per capita contracts. The intent of both reforms was to improve the efficiency and financial sustainability of the public health care system and to improve the quality of service delivery *(9,42).*

Purchasing of secondary and tertiary health services in public hospitals

Reforms for purchasing outpatient and inpatient services in MoHME-affiliated hospitals were initiated in 1995 (see Chapter 3). Until then, the main source of financing for public hospitals was government funds, which was reported to represent 95% of revenues *(42).* The Universal Health Insurance Act of 1994 included an article that granted public hospitals the authority to raise revenue themselves

TABLE 5.5:
INSTITUTIONAL FACTORS UNDERLYING REFORMS TO REDUCE FRAGMENTATION IN PUBLIC HEALTH INSURANCE ARRANGEMENTS

Facilitating factors	Hindering factors
• Supporting legislation with the 2001 Comprehensive Organizational Structure for the Social Security System, the 2010 law mandating a single national health insurance scheme and reflection in fourth and fifth 5-year NDPs; the latter particularly promoted equity in health, including merging several sub-schemes under the IHIO and mandating the provision of a coherent set of services in the benefit package from all public health insurance funds • Coordination mechanism with the establishment of the High Council for Health Insurance in 1994	• Lack of buy-in from health insurance funds to merge led to strong resistance and therefore weakened implementation • Lack of consultation with health insurance funds on the design of the policy led to coordination failures • Lack of clarity regarding which stakeholder had the main authority for implementation • Lack of engagement with citizens and health insurance funds contributed to resistance (e.g. members of better-resourced funds were concerned about losing benefits in a merge)

by charging FFS, thus replacing line item transfers from public budgets with FFS payments to be collected from households in the form of co-payments and from the IHIO (then MSIO), which was given the responsibility of purchasing such services. Thus, supply-side subsidies for staff salaries were removed; this significantly affected the self-sufficiency of newly autonomous hospitals, which now relied on FFS. The Act further stipulated that the IHIO (then MSIO) would purchase a specific package of hospital services for citizens to be partially financed by per capita premiums paid by the government *(42,43).* The reform was known as the "hospital autonomy policy", indicating comprehensive changes; however, in reality, it only changed the provider payment mechanism and other aspects of autonomy in regard to hospital management and operations remained unchanged *(42).*

The intent of the reform was to improve the performance of hospitals by increasing efficiency in the provision of services, thereby reducing costs and the burden on government budgets *(42–44).* It was considered that rendering public hospitals autonomous would foster competition and lead to greater efficiency, higher-quality health services and better accountability. The policy was initiated in the backdrop of broader economic reforms aimed at liberalizing the public sector, especially in education and health *(45).* At the same time, the country faced rising inflation rates from 9% in 1990 to 20% in 1991, and population demand for health services was increasing *(10,46).* These factors contributed to rising hospitals costs and exacerbated financial risks borne by the government. This may have led to the policy's focus on the financial aspects of autonomy, particularly revenue raising.

Unfortunately, the policy did not have the desired outcome as FFS led to greater inefficiency and even exacerbated the financial situation and the quality of health services in some MoHME-affiliated hospitals. While the introduction of the FFS payment mechanism allowed hospitals to generate income, some actually incurred losses because they were providing services to the uninsured or to those who were insured but could not make co-payments. Some hospitals reportedly denied services to people without insurance, raising serious concern about access and eroding public trust in the health system *(43).* The hospital autonomy policy was financially reliant on the 1994 Parliament Act to universally extend health insurance; however, this was not yet in place. The funds received by hospitals from the IHIO (the MSIO) were both insufficient and frequently delayed, such that some MoHME-affiliated hospitals were no longer able to afford to provide care and came close to shutting down *(42,44).*

To remedy these unintended effects, a series of ad-hoc initiatives were put in place to fill funding gaps by reallocating funding earmarked for medicines to hospitals and by borrowing from the IHIO (then MSIO) *(42).* In the end, the reform to develop hospital autonomy was put on hold and purchasing arrangements reverted to previous mechanisms. A year after the policy was introduced, it was revoked in a 1996 amendment by Parliament, which revived an article in the annual budget act that mandated the government to again finance the salaries of hospital staff *(47)*[2]. Despite reverting back to line-item payments, FFS payments are still an important source of hospital financing, partly because the government had difficulty in mobilizing sufficient funds to pay staff salaries and partly because the insurance organizations were slow to reimburse hospitals *(43).* Moreover, physicians had come to expect FFS payments as a supplement to their salaries. During this period, there was a substantial increase in OOP payments for health services *(43).*

While changes to the purchasing arrangements for inpatient services in MoHME-affiliated hospitals were supported by both political will and legislation, a number of factors ultimately hindered the policy's design and implementation (Table 5.6).

[2] By the time of the third 5-year NDP for 2000–2004/05, efforts to achieve hospital autonomy were renewed under a revised plan, the "Comprehensive Plan to Reform Managerial and Economic Structure of Hospitals" (aka "Hospitals Trustee"). This initiative was more comprehensive than previous proposals and covered aspects such as managerial restructuring, operational budgeting, performance-based management, outsourcing, management of physical resources, and information systems. In a pilot project, 18 hospitals were granted autonomy in 2009. However, the policy has not yet resulted in fundamental changes *(42,43).*

These included a top-down implementation approach and the absence of a comprehensive strategy, both of which contributed to a lack of stakeholder support and weak policy design. Furthermore, lack of coordination with other reforms to extend insurance coverage to a universal level contributed to financial deficits. The health insurance funds were also ill-equipped to undertake the purchasing function, and hospitals were unable to manage costs and revenues effectively.

TABLE 5.6:
INSTITUTIONAL FACTORS UNDERLYING REFORMS FOR THE PURCHASING OF SECONDARY AND TERTIARY HEALTH SERVICES IN PUBLIC HOSPITALS

Facilitating factors	Hindering factors
• Legislative support with the Universal Health Insurance Act and reflection in the second, third, fourth, and fifth 5-year NDPs; the latter directed budget transfers from the Budget and Planning Organization to Provincial Medical Universities to further support implementation • Political will whereby government officials aimed to reduce the cost burden and hospitals wished to be autonomous	• Top-down implementation with little engagement with hospital management, health providers or health insurance funds led to a lack of stakeholder support • Lack of a comprehensive strategy led to poor policy design (focus on financial autonomy at the neglect of managerial and operational autonomy) and a mismatch between the intended policy and its execution • Lack of coordination with health insurance reforms (i.e. the timing of implementation was not well-coordinated with the policy to extend insurance coverage to universal levels) contributed to financial challenges and weak implementation • Financial deficits given estimates of required resources to implement the policy were not based on accurate costings; this was further exacerbated by the absence of a conducive macro-fiscal situation and notably high inflation rates • Lack of capacity with health insurance funds ill-prepared to take on their newly mandated purchasing functions because of insufficient funds and fragmented arrangements which weakened their purchasing power • Lack of capacity with hospitals not well-equipped to plan, manage or operate their facilities

Purchasing of primary health care services in rural areas

In regard to PHC services, the MoHME was the predominant purchaser and provider of such services in the Islamic Republic of Iran for several decades, up to 2004 *(9).* In 2005, a split in the purchasing and providing functions was initiated when the IHIO (then MSIO) became the purchaser for primary care services in rural areas. Financing and payment arrangements changed from fixed salaries for family physicians paid by the MoHME to capitation payments based on contracts with the IHIO *(8).* This split was also reflected structurally as the IHIO (then MSIO) was moved from the MoHME to the Ministry of Cooperative, Labour and Social Welfare (then the Ministry of Welfare and Social Security) *(9).* The change in purchasing arrangements also occurred at the same time as the reform to implement the family physician programme and the rural health insurance scheme, as part of broader efforts to improve population access to PHC services.

Although these purchasing arrangements are still in place, the reform faced challenges in its implementation and in building a strong institutional relation between the purchaser (IHIO) and the provider (MoHME) *(9).* Table 5.7 lists key factors that facilitated and hindered the effectiveness of the reform. Hindrance was due to the lack of strong collaboration among stakeholders, lack of established coordination mechanisms and lack of shared interests between the purchaser and provider *(8,9,14,32).* These factors were due primarily to resistance to changing dynamics in the relations between the two organizations, with the IHIO (then MSIO) no longer under the oversight of the MoHME but now newly independent and eager to demonstrate its authority. In addition, the lack of shared goals made it difficult to reconcile differing institutional mandates, whereby the IHIO was interested in providing insurance to reduce financial risks associated with curative care services, and the MoHME was interested in promoting public health and implementing a service delivery model that would ration access to preventive care *(9).* These factors weakened the purchaser and provider partnership. Despite these obstacles, facilitating factors such as political will and supporting legislation helped to ensure translation of the policies into purchasing arrangements that are still in place; although, structurally, the IHIO moved back under the oversight of the MoHME in 2016.

HEALTH TRANSFORMATION PLAN

In 2014, the Islamic Republic of Iran launched a major reform – the Health Transformation Plan (HTP) – with the overarching aim of achieving UHC by 2025, five years before the target date of the global Sustainable Development Goals *(48).* The HTP had three objectives: improve the stability of financial resources for health, ensure financial protection against undue hardship due to paying OOP for health and increase access to high-quality health services *(21,31).* The HTP became President Rouhani's signature reform, following his promise when he took office in 2012 to make health one of his major domestic priorities.

The HTP was implemented in three phases during 2014 *(19).* The first phase comprised interventions to extend insurance coverage and improve access to inpatient services in public hospitals by reducing co-payments, halting the practice of physicians demanding informal payments and renovating the infrastructure and strengthening the quality of care in MoHME-affiliated hospitals. The second phase comprised interventions to improve primary care by extending the family physician programme, especially in peri-urban and urban areas. Finally, the third phase comprised interventions to better reflect the cost of the services provided by revising the relative value units (RVUs) of health services, which are used to set prices within the health system.

TABLE 5.7:
INSTITUTIONAL FACTORS UNDERLYING REFORMS FOR THE PURCHASING OF PRIMARY HEALTH CARE SERVICES IN RURAL AREAS

Facilitating factors	Hindering factors
• Legislative support with Parliamentary approval for the structural shift of the IHIO (then MSIO) from the MoHME to the Ministry of Cooperatives, Labour and Social Welfare (then the Ministry of Welfare and Social Security) in 2005 • Parliamentary support with its 1984 endorsement of the 1978 Alma Ata Declaration, which catalysed PHC initiatives • System alignment with a strong existing PHC network	• Lack of collaboration due to resistance to changing relations between the IHIO (then MSIO) and the MoHME, leading to weak collaboration • Different institutional mandates, resulting in different interpretations of the policy with each stakeholder focusing on different aspects of the policy • Financial deficits contributed to weak implementation of the reform • Lack of engagement with health providers to gain their input and buy-in contributed to weakly designed contracts with them

While implementation of the HTP is in its early stages and its impact is still being assessed, some initial achievements and emerging challenges have been identified. Financial support for the HTP has benefited from revenues generated from a 1% increase in value-added tax (VAT) and an initial 10% of funds from a targeted subsidy reform, altogether amounting to an additional US$ 3 billion in the first year of implementation *(21,31).* Nevertheless, there is growing concern about the sustainability of financing for the HTP in view of the trends in current and future total government revenues *(18,19,21,31).* Improving efficiency by more strategic purchasing and modernized and coordinated provider payment methods is thus of considerable interest and is seen as a de-facto source of untapped "revenue". With regard to financial protection and reducing the hardship caused by OOP payments, the focus has been on extending insurance, reducing co-payments at public hospitals and preventing unofficial (i.e. under-the-table) payments. The latest available data on financial protection are from a 2015 household survey and represent payments made in 2014. Data thus predate recent initiatives, but analyses nevertheless indicate momentum towards achieving the objectives (see Chapter 1). At the macro-system level, data from national health accounts indicate that the share of OOP payments in current health expenditure was 39% in 2016. In terms of increasing access to high-quality health services, the HTP has focused on improving PHC delivery in peri-urban and urban areas by establishing new facilities and increasing the supply of health workers.

Table 5.8 indicates that while the HTP has benefited from high-level support and significant public financial investment, the design and implementation of the reform has faced some institutional challenges. These are primarily linked to the lack of a documented comprehensive strategy developed with other stakeholders, lack of coordination among stakeholders (e.g. MoHME, health insurance funds and health providers) and lack of specific and coordinated policy changes (e.g. using modern outcome/output based payment methods, ensuring coordination among payers and addressing incentives set by supply-side and demand-side subsidies) for translation of high-level laws and decrees into action and eventually the desired impact.

TABLE 5.8:
INSTITUTIONAL FACTORS UNDERLYING IMPLEMENTATION OF THE HEALTH TRANSFORMATION PLAN

Facilitating factors	Hindering factors
• Political support from high-level officials, including President Rouhani, supported translation of the policy into action • Legislative support with reflection in the fifth 5-year NDP • Financial support with significant investment from public funds, especially in the first year of implementation • Management and operational support for implementation, with the establishment of a dedicated committee for HTP oversight and management in the MoHME	• Top-down implementation led to insufficient involvement of technical experts in policy development • Lack of documenting the overall vision made it difficult to understand how specific priorities fit within the overall aim of the HTP and weakened coherence between individual policies • Supporting operational policies have yet to be fully developed and coordinated • Weak coordination mechanisms among MoHME departments hindered the ability to reconcile diverging interests (e.g. a focus on and investment in PHC and preventive programmes versus on curative and hospital services) and thus implementation of the plan • Financial concerns due to increasing costs and the high rate of inflation exacerbating the financial burden of the HTP on the public budget; the uncertain macro-economic context further giving rise to concern about the sustainability of resources threatening continued implementation

WAY FORWARD: OPPORTUNITIES AND CHALLENGES TO STRENGTHEN INSTITUTIONAL ARRANGEMENTS UNDERLYING HEALTH SYSTEM REFORMS

The Islamic Republic of Iran has undertaken major health system reforms over the last four decades. Reforms to extend and strengthen the PHC network have improved delivery of basic public health and PHC services, especially in rural areas, and contributed to significant improvements in maternal and child health outcomes. In addition, the reforms to extend health insurance coverage were successful with 95% of the population covered in 2017. These achievements are to be celebrated. Nevertheless, other reforms faced challenges, such as those around addressing inefficient arrangements in the purchasing of health services. These resulted in some technical changes in financial flows and payment mechanisms but unfortunately did not forge long-lasting institutional arrangements or strong purchaser and provider relations. Reforms to address fragmentation in insurance arrangements resulted in some increase in the coherence of insurance policies but did not lead to greater pooling of risks among insurance funds because of a lack of willingness from the health insurance funds to relinquish their financial and organizational autonomy.

Across these reforms, a common set of facilitating and hindering factors to the design and implementation of major health system reforms in the Islamic Republic of Iran can be identified. The factors frequently assessed as facilitating are: high-level political support, legislative support, and initial budgetary support. The factors identified as hindering the effectiveness of reforms concern the complex landscape of multiple organizations operating in both the public and the private sectors with unclear delineation of their respective roles, weak coordination to build shared interests and foster buy-in among stakeholders, and alignment to ensure system readiness with adequate technical and managerial capacity in implementing institutions and sustained financial support. Leveraging facilitating factors and addressing hindering factors are priorities and would help to ensure the sustainability and effectiveness of ongoing reforms.

The following policy options may be considered:

- Clearly delineate roles and responsibilities for each main stakeholder in the health system (e.g. ministries, insurance funds, councils, committees, providers) so that each is accountable for its performance and with minimal ambiguity and overlaps. For example, the government and the MoHME are responsible for policy-making, regulation and public finance allocation; health insurance funds focus on strategic purchasing of services; and providers focus on efficient provision. The exercise should include consideration of the role of the private sector in both the financing and provision of health services and the development of policies for engaging with the growing private sector for an appropriate public–private mix.
- Strengthen existing structures (e.g. councils and committees) for coordination and communication by institutionalising processes for more regular policy dialogue and transparent decision-making. This will help to foster a more evidence-based and participatory approach to policy design and will facilitate implementation by building shared interests and buy-in of stakeholders. These efforts should be done both within the health sector and with other social sectors.
- Build technical and managerial capacity of institutions operating in the health system to implement health system reforms. Capacity-building should address skills such as: health policy analysis, data analysis, information systems management, planning and coordination of health policies, budgeting and management of resources, policy dialogue, and dissemination and use of evidence for decision-making.
- Develop public and private sources of revenue to ensure stable, sufficient and sustainable financing of the health sector in light of the challenging economic and political environment.
- Develop an overall strategy for reforming the health system with clear objectives and a costed action plan detailing specific policy actions, responsibilities for implementation and timelines that consider the sequence of changes.

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