

Strategic purchasing of primary health care

A scoping review of the experience of ten countries

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Executive summary

Introduction

In the wake of the World Health Report 2000 and especially after the publication of the World Health Report 2010, increased attention has given to the financing and specifically the purchasing function within health systems. One area that developed rapidly is strategic purchasing of health services, which has been introduced in different forms in many countries in the last two decades, including purchasing primary care services. Yet, despite this policy attention, the evidence on the effectiveness and efficiency of purchasing health services is scarce and fragmented.

Objectives

The Health Systems Transformation Platform commissioned a study to inform policy discussions in India. It aims at obtaining answers to the following questions:

- What is provided in primary health care in the countries? What are the services provided under personal care, population services and addressing the determinants of health?
- Who provides primary health care?
- How is it provided? Is it different in urban and rural areas?
- To whom do they provide care?
- How is primary health care financed?
- How are the primary health care providers paid?
- How is the performance of the PHC measured? Which are the key process and output indicators used to measure PHC?
- What is the cost of providing primary health care (wherever data is available)?

Methodology

Focus countries

In consultation with HSTP, the following countries were selected: the Philippines, Indonesia, Thailand, China, Spain, Estonia, Turkey, Ghana, Brazil and Colombia. These countries were selected based on their relevance, interest and experience with PHC (purchasing) policies.

Study design

We adopted the principles of the scoping review methodology to review the general state of the art of PHC policies and programmes in the study countries. We searched in both the peer-reviewed and the grey literature, using two search strategies: (1) a database search using of Web of Science, PubMed and Google Scholar and (2) snowballing, and reference and citation tracking strategies). We found that papers and reports have primarily been published in the grey literature and in the form of policy documents of international organisations instead of peer-reviewed publications. This led us to adopt an iterative search process, like the data collection strategy presented by Kringos (2015). It became clear that the terminology that is used in the literature differs substantially by country: terms such as 'first line', 'integrated care', 'primary health' 'primary health care', etc. mean different things in different settings. This led us to adopt a wide range of search terms. During the initial phase of the literature review, we refined our initial list of inclusion/exclusion criteria, which we subsequently applied to all country studies. We adopted a data extraction sheet with a standardized set of categories that were used across all reviews.

Results

Overview of PHC purchasing in the European region

We set the scene by presenting the key findings of Saltman et al. (2006), who provide an overview of the benefits, challenges, and contextual conditions of PHC purchasing for EU countries. The authors found that it is difficult to attribute observed outcomes to specific PHC purchasing modalities, other concurrent PHC reforms, or health service organisation and health system factors. The authors

found no evidence of direct and unequivocal relationships between PHC purchasing and outcomes of improved quality of care. Among the problems with the implementation of purchasing of PHC, the authors identified the risk of inadequate implementation due to high management and transaction costs at the level of GP practices, the risk of perverse incentives and negative effects on equity. Context conditions the authors found to be important include organizational capacities (management capacity and clear clinical, financial and managerial frameworks), and professional conditions (incl. professional, managerial or regulatory control of PHC practice).

Busse et al., (2007) present an overview of the most important characteristics of 14 Performance for Quality (P4Q) programmes for Primary Health Care carried out in 13 European countries. An important finding of this study was the limited attention that was paid during the design and evaluation of these programmes to the outcomes, thereby limiting the usefulness of such studies.

A summary of country experience of purchasing primary care is presented here.

The Philippines

The coverage and benefits package for primary healthcare services offered under the Philhealth programme has been gradually expanded over the last years. A number of issues underlying Philhealth impede the provision of primary care. Dayrit (2018) found that as Philhealth accounts for a small share of total health expenditure, "*PhilHealth cannot yet be considered a strategic purchaser of services.*"

The minimal primary care benefit design and its slow expansion limited the impact of Philhealth on primary care provision. Picazo et al. (2015) pointed to the inadequacy of funding sources to purchase more comprehensive outpatient and inpatient services. Barriers to access for the poor groups of the population remain as perennial problems (Obermann et al., 2018). Also, regarding quality of care, issues persist. Important disparities in financial capacity, workforce and health infrastructure across municipalities and cities have led to variations in the quality of care and contributed to inequities in health status (Dayrit et al., 2018). Honda et al. (2016) identified the weak IT infrastructure and a weak health technology assessment capacity as hindering effective monitoring of Philhealth's operations.

Indonesia

Indonesia made major progress in providing PHC through the *puskesmas* system. However, problems with access and coverage, and financing of PHC remain. The social health insurance scheme called *Jaminan Kesehatan Nasional (JKN)* has greatly expanded its coverage during the last decade, except for people within the middle quintile of the population. Service provision under JKN is, however, variable. As a result of variation in supply-side conditions, infrastructure, implementation of the decentralization policy and the fiscal capacity of the region, the social security system cannot guarantee universal and coverage access, leading to inequities. The fact that there is poor or no evaluation of facilities or penalties for poor service or over-referral contributes to overspending. There are also no clear links between the capitation system and performance. The JKN scheme also remains underfunded. Honda and colleagues found that JKN is underfunded for the current levels of expenditure, which are due to the absence of capped hospital budget ceilings. Agustina et al. (2019) noted problems with the fees. "*Although initially accepted and in use by primary care providers, capitation and claim payments are considered too low given the required competency and service standards. Payments are based solely on members covered and resource availability without considering total facility burden and performance.*" (Agustina et al., 2019). The resulting budgetary deficits lead to delays in reimbursements of accredited providers. Finally, it struck us that our literature search identified relatively few papers on PHC in Indonesia. More research is required.

Thailand

Thailand's expansion of UHC through systematically developing its social security system is widely acknowledged as a success story. The UCS particularly demonstrated effective strategic purchasing practices for primary care, as well as health care in general, that have increased system efficiency while ensuring quality. Patcharananumol et al. (2018) identify several best practices, including the use of closed-ended provider payment methods, the use of a national list of essential medicines, the systematic application of HTA in defining and updating the benefit package, the exercise of purchasing by the NHSO to reduce prices of key medicines and devices, and instituting the gatekeeping mechanism through the CUP to promote rational use of the health system (Patcharananumol et al., 2018). It should be stressed that these best practices are underpinned by supply-side readiness, which was gradually but systematically developed over decades (Patcharananumol et al., 2018).

Contracting a network of primary and secondary care facilities instead of individual primary or secondary facilities promotes continuity of care through different levels. Additional measures may be needed to ensure that budget allocation for primary care is not shifted to hospital care within the network, such as ring-fencing the allocation for primary care (Intaranongpai et al., 2012). The incorporation of patient and community participation mechanisms into the legal framework of the UCS and the effective utilization of these mechanisms contribute to transparency and trust of the public in the scheme and helps to sustain it (Kantamaturapoj et al., 2020).

China

China has made remarkable progress (2009-2020) in reconfiguring its health system. It has consolidated the social health insurance schemes, integrated health providers from different sectors, restructured the public hospital system and significantly improved financial access and coverage for disadvantaged population groups

However, many challenges of a structural nature not only remain, but are increasing gradually in intensity. Despite relatively low caps on curative services co-payments on medicines, out-of-pocket expenditure remains high for many. Hospital doctors continue to charge excessive and arbitrary fees. They are also open to under-the-table payments. This causes a high level of uncertainty as to the predictability of costs. The current system is not designed to treat expensive chronic diseases, and the poor often cannot afford the co-payment.

There is a need to address the rampant issues of inequity and disparity in access to primary health care that continues to plague the country. This applies to service users as well as providers, especially those involved in primary healthcare. Further consolidating the schemes and their risk pooling levels would reduce the volume of out-of-pocket expenses for the rural populations, as well as for the urban non-employed or informal sector workers.

Spain

Spain's primary care system is considered to be highly cost-effective. The implementation of the PHC model has been made possible through the recognition of family medicine as a speciality, the devolution to the regions with the designation of local health areas, and the institution of basic health zones, PHC structures and PHC teams. A large investment in infrastructures and facilities adapted to the work of multidisciplinary teams created the physical infrastructure for meetings, group work and community activities, and in general helped in the implementation of the policies. An electronic clinical records system, supported by appropriate IT systems, helped not only in the clinical case management, but also contributed to strengthen the integration with the secondary care facilities.

As many European health systems, Spain is facing increasing financial pressure and changing demands of the population (Legido-Quigley et al., 2013). Current challenges include integrated and co-payment long term care, resulting for some population categories in catastrophic health

expenditure. It is also being reported that GPs consider burnout, increased co-payments for patients and the exclusion of migrants from health care as major problems. They expressed their concern that moving from a universal model to an employment-based model could be detrimental for health and well-being of the Spanish population (EC, 2019; Heras-Mosteiro et al., 2016).

Estonia

The Estonian Health Insurance Fund (EHIF) functions as a purchasing healthcare services. However, EHIF has a broader mandate, which also includes purchasing PHC services through the family physician system. The processes of purchasing implemented in EHIF for the family physician system may be adapted to the Indian system. They could inform the mechanisms of purchasing PHC from the Health and Wellness centre clusters operated by the MoHFW or for contracting the private sector physicians operating as a single practitioner or in group practice/nursing homes.

Estonia is a very small country, smaller in population than many Indian cities. The size matters in terms of regulation and governance capacity. Strong leadership provided by the Ministry of Social Affairs (MoSA), the Estonian Health Insurance Fund (EHIF), and family doctors is considered to have been critical to the success of primary health care reforms. Most PHC reforms involved negotiations between the key state agencies and PHC providers.

Turkey

It took ten years for Turkey to demonstrate that political will combined with factors that foster a favourable environment, can lead to positive results in PHC. The Health Transformation Programme has yielded substantial and rapid improvements of most of the major health status indicators. It is considered as one of the most successful of its kind in middle-income countries. Key components of this achievement were the implementation of universal health insurance (General Health Insurance scheme), the harmonization of various insurance funds, the adoption of family medicine as the backbone of the PHC system, and the separation of diverse functions pertaining to purchasing of services, care provision, regulation, administration and stewardship (Atun et al., 2013; Yardim et al., 2014).

However, these achievements face challenges and command some level of concern, in terms of maintenance, strengthening, and sustainability (Aktan et al., 2014). More emphasis needs to be put on the regular assessment of the quality of services provided (Bener et al., 2019). Ocek et al. (2014) suggest that more emphasis should be put on neglected public health aspects, rather than only MCH. There is also a need to closely monitor the impact of the economic burden of out-of-pocket expenditure for the poorest households. The financial sustainability of the social insurance scheme is yet to be guaranteed, owing to contextual issues, such as rampant levels of unemployment, increasing demand for healthcare, and an aging population. Ökem and Çakar (2015) argue that strengthening the strategic purchasing function of the Social Security Institution should be a priority, as it will bring more transparency and efficiency to the multiple arrangements made with the providers.

Ghana

The different policies, strategies and programmes Ghana has undertaken have been relatively successful in restructuring institutional arrangements in the health sector. It is argued that a separation of diverse functions previously held by the Ministry of health through the creation of relatively autonomous agencies has enabled the emergence of a favourable environment for innovation, testing of models and more profound organizational changes in health service delivery systems (Nsiah-Boateng et al., 2016; Saleh, 2013).

The state has increasingly supported the financing of health services and further entitlements of beneficiaries through the extension of health insurance coverage. The health sector is currently in a transition from an input-based health financing system limited to public health care providers to a performance-based system open to public, private not-for-profit or even for-profit health care

providers. The system has also shifted to the demand-side, thus the increased utilization of services (Dalinjong and Laar, 2012). The district level has been recognized as the principal location of primary health care delivery. Yet, the CHPS strategy and PHC have not yet succeeded in bringing about more integrated and inclusive health care in the remote areas.

Despite all the encouraging achievements, there remain many challenges on Ghana's journey toward universal health coverage. Sustainability of NHIS should be addressed urgently. The VAT as a major source of funding could collapse in the event of major economic downfall. The premium exemptions for large groups of the population may slow down the efforts by the government to keep subsidizing the more vulnerable populations. Enrolment in the scheme, although mandatory by definition, is still being carried out on a voluntary basis, as with the community-based health insurance schemes that were in effect prior to the launching of the NHIS in 2003.

Agyepong et al. (2016) concluded that to attain universal population coverage with an affordable package of essential care, one should ensure that enrolment in national health insurance is compulsory. They also suggest that Ghana continue to pay careful attention to responsiveness and incentives to potential stakeholders at the implementation levels. One area that may need to be revisited is that of provider payment mechanisms (the short-lived capitation model).

Brazil

The creation and implementation of the Brazilian Unified Health System (SUS) and its core Family Health Strategy (FHS) have been a great step towards UHC in Brazil. It has expanded coverage of health service use and brought health care closer to families and to vulnerable communities all over the country. It has contributed to a decrease of child mortality and better mother care (Bastos et al., 2017), and to a reduced number of potentially avoidable hospitalizations (Greve and Schattan Ruas Pereira Coelho, 2017). The 2019 National Health Survey findings confirmed that Brazil's Family Health Strategy continues to be an equitable policy (Giovanella et al., 2021).

Besides these more intangible aspects, SUS faces serious threats, particularly with respect to service provision, and its relationship with the private sector (Reis et al., 2016; Viacava et al., 2018). Integration and coordination of health services and care remain precarious, resulting in fragmentation, redundancy, and major gaps in health care. This contributes to persistent regional inequalities, indicating unmet health needs among residents of the less developed municipalities (Massuda, 2020; Szwarcwald et al., 2021).

The fundamental principles of universality, equity and comprehensiveness that shaped the SUS and were incorporated into the 1988 Brazilian Constitution, have produced changes in health practices, particularly PHC, but current changes in the national policy guidance may weaken the community approach and the priority given to the Family Health Strategy.

Colombia

The Colombian health system has made big efforts to fulfil the goal of UHC giving priority to PHC. Since its inception in 1993, the General System of Social Security in Health (SGSSS) has been providing universal public and private health coverage reaching almost 100% of its population at present. The system pools all resources into a common fund that is distributed on a risk-adjusted capitation basis to a range of public and private health insurance organisations. People are allowed to choose their health insurance organisation, which in turn are able to choose the providers with which they contract. In an equality concern, the health revenue collection is progressive, meaning that higher-income individuals contribute relatively more towards the health system (Guerrero et al., 2015; Torres and Acevedo, 2013).

Nevertheless, there are still equity challenges in the delivery of healthcare, especially for preventive and outpatient care. These inequalities are driven by individual characteristics such as wealth, urban residence, type of health insurance carried, and presence of multimorbidity (Agudelo-Calderón et al., 2011). For instance, the use of reproductive health services was found to be lower among

indigenous and African-descendant Colombian women (Noreña-Herrera et al., 2015). There is also a marked difference in access and quality of health care, including infrastructure, equipment and technology between urban and rural/remote areas. While out-of-pocket expenditure is moderate to low and catastrophic health expenditure is uncommon, it affects primarily households in the lowest socioeconomic quintiles. The incidence is higher in households in the Pacífica and Atlántica regions, extended and nuclear families, households with children or elderly adults, located in rural or remote areas, and not insured under the healthcare system (Londono Agudelo et al., 2020).

Conclusions

This report presents a summary of the results of a scoping review of the literature on purchasing primary health care in the Philippines, Indonesia, Thailand, China, Spain, Estonia, Turkey, Ghana, Brazil and Colombia.

In 2018, Klasa et al. (2018) found little evidence of good implementation of such strategies in Europe and even less evidence of their effectiveness in terms of improving access and quality of primary health care. Our review shows that the assessment of Klasa and colleagues holds also true for a selection of other countries, in Asia, Latin America and Africa. While a number of countries where PHC reforms were introduced saw major improvements in health utilisation and coverage, and health status (for instance China or Turkey), it remains difficult to attribute these changes to the policies that were introduced. Our review showed that there is no uniform body of knowledge, which may be due to differences in terms of policy formulation and implementation, and sketchy documentation and evaluation of such policies.

Also methodological issues may explain the scarcity of systematic learning about strategic purchasing of PHC services. First, definitions of health care differ across countries, which hampers comparison of country policies. Second, much of the published papers focus on descriptions of policies, with less attention paid to assessing actual implementation, leave alone assessments of effectiveness, cost and efficiency. Finally, there is the challenge of collecting and interpreting evidence of good practices related to components of purchasing that are scattered among reports and publications. The latter are meant to serve different purposes for different actors and thus rarely, if ever, present a picture that can easily be compared across countries. Finally, the historical context and specifically the evolution of the political system, the (political) economy and the health system play an important role in explaining the pathways that countries have chosen. To our knowledge, systematic studies of such factors and their interplay are non-existent.

We thus echo the conclusion of Klasa and al., who wrote that *“Policymakers considering adopting strategic purchasing policies should be aware of this systemic implementation problem. Policymakers in systems with strategic purchasing built into policy should not assume that a purchasing system is strategic or that it is delivering any expected objectives.”* (Klasa et al. 2018).

We would like to believe that this report may guide policymakers and researchers by providing a succinct overview of primary health care policies and strategies developed and implemented in a number of countries. It may whet their appetite to study in more detail these policies in order to adapt and innovate ways to further improve the delivery of PHC.

Introduction

Purchasing refers to the organized pooling of resources for the providers to deliver the services to certain group of people or entire population. Purchasing of health services can be more strategic and it is critical for countries to progress towards Universal health Coverage. Purchasing is considered strategic when the resource allocations are linked, at least in part, to information on provider performance and the health needs of the population they serve, with the aim of realizing efficiency gains, increasing equitable distribution of resources and managing expenditure growth. Strategic purchasing is about defining:

- What to buy? – Which services will respond to the needs of the target population; how will they be defined?
- From whom to buy? – Which providers, public and/or private, will be able to deliver effectively those services?
- How to buy? – How will providers be paid, at what rates, what are contracting terms and how will compliance be monitored?

There exist five definitions for strategic purchasing, the synthesized definition of (Klasa et al., 2018) is found, comprehensive and covering all elements of strategic purchasing of health services. *“An evidence-based process that sculpts health care systems by prioritizing the financing of certain goods and services over others through collaborative planning across various healthcare stakeholders while incorporating the needs and priorities of citizens in the distribution of health care and promoting equity, quality of care, efficiency, and responsiveness in the provision of health services”*. Klasa et al., 2018)

Strategic purchasing of health services has been introduced in different forms in many countries since two decades. In the wake of the World Health Report 2000 and especially after the publication of the World Health Report 2010, increased attention has given to the financing and specifically the purchasing function within health systems (RESYST, 2014). In 2018, the systematic review of strategic purchasing in European countries by Klasa et al. found that *“There is little evidence of purchasing being strategic according to any of the established definitions. There is little or no literature suggesting that existing purchasing mechanisms in Europe deliver improved population health, citizen empowerment, stronger governance and stewardship, or develop purchaser organization and capacity. Strategic purchasing has not generally been implemented.”* (Klasa et al., 2018)

Yet, Primary Health Care remains an important strategy to improve the health status of people (WHO, 2008), and many countries have introduced primary care reforms.

In order to inform policy discussions in India, this study was commissioned by the Health Systems Transformation Platform (New Delhi). It aims at obtaining answers to the following questions:

- What is provided in primary health care in the countries? What are the services provided under personal care, population services and addressing the determinants of health?
- Who provides primary health care?
- How is it provided? Is it different in urban and rural areas?
- To whom do they provide care?
- How is primary health care financed?
- How are the primary health care providers paid?
- How is the performance of the PHC measured? Which are the key process and output indicators used to measure PHC?
- What is the cost of providing primary health care (wherever data is available)?

This report presents the results of the literature review of strategic purchasing of PHC of ten countries: the Philippines, Indonesia, Thailand, China, Spain, Estonia, Turkey, Ghana, Brazil and Colombia. After presenting the methodology we applied, we present the ten country reports. In accordance with HSTP, we kept these chapter short, presenting key findings of a selection of papers and documents we retrieved for each country. The report ends with a general conclusion.

Methodology

Focus countries

Our review includes the following countries: the Philippines, Indonesia, Thailand, China, Spain, Estonia, Turkey, Ghana, Brazil and Colombia. These countries were purposively selected by Health Systems Transformation Platform (HSTP), New Delhi and Institute of Tropical Medicine, Antwerp on the basis of their relevance, interest, and having undergone reforms in PHC experience with PHC (purchasing) policies.

Study design

We adopted the principles of the scoping review methodology developed by (Arksey & O'Malley, 2005) to review the general state of the art of PHC policies and programmes in the study countries.

Search strategy

We searched in both the peer-reviewed and the grey literature, using two search strategies: (1) a database search using of Web of Science, PubMed and Google Scholar and (2) snowballing, and reference and citation tracking strategies (cfr. *Policy landscaping study on innovative ways to provide primary health care - Protocol*). We used the results to draft case studies of each country.

In general, our initial search strategy yielded relatively few publications for most of the study countries. We found that papers and reports have primarily been published in the grey literature and in the form of policy documents of international organisations instead of peer-reviewed publications.

This led us to adopt an iterative search process, similar to the data collection strategy presented by (Kringos, 2015). We opted for broad searches on Google Scholar through different combinations of keywords and by applying the snowballing method. The first exploratory searches showed that many papers have been published as abstracts of conferences, as dissertations or as country-specific or regional academic journal papers. Other articles have been published in journals outside the field of health (public administration, economics, accounting, etc.). Table 1 presents an overview of the search strategy. It also became rapidly clear that the terminology that is used in the literature differs substantially by country: terms such as 'first line', 'integrated care', 'primary health', 'primary health care', etc. mean different things in different settings. This led us to adopt a wide range of search terms.

Table 1 - List of search terms

| Key search domains | Related terms |
|---------------------|--|
| Primary health care | First line health care OR basic health care OR community health care OR first line health services OR community health services OR basic health care package |
| Private sector | Private for profit OR not for profit OR |
| Modes of engagement | Purchasing OR contracting OR financing OR funding |

During the initial phase of the literature review, we refined our initial list of inclusion/exclusion criteria, which we subsequently applied to all country studies:

- We excluded articles reporting the results of a clinical intervention in a private primary health care setting, but included publications where quality of management of diseases and conditions were compared in public and private settings in the same context.
- We excluded reporting on provider prescription behaviour in care settings and cost effectiveness analyses of therapies.
- We excluded population health interventions, such as immunization and voluntary Public-Private Partnerships (PPP) on health promotion
- We included articles on clinics managed by PPPs and private-public collaboration at health system level.
- We included reporting on utilization preferences in mixed systems.
- We included articles on strategic purchasing in general, not specifically limited to PHC.

Table 2 presents the final inclusion and exclusion criteria.

Table 2 - Inclusion and exclusion criteria

| Criteria | Included | Excluded |
|-------------------|---|--|
| Timeline | 1990-2020 | Before 1990; after 2020 |
| Regions/countries | HIC and LMIC | |
| Language | English, other languages if translatable through google translate | Other languages |
| Publication type | Peer reviewed publications: implementation research, empirical (case) studies, primary data analysis (incl. randomized controlled trials, quasi-experimental studies, before/after design, longitudinal studies, qualitative studies, systematic reviews, Grey literature: documents published by international institutions, think tanks, research organisations in domains of health policy and systems research, public health and public administration, monographs and readers from abovementioned domains; comments/views/letters to editor with empirical, practice-based content | NGO meeting reports and advocacy publications, dissertations, conference proceedings, ongoing research/programmes, comments / views without empirical content, abstracts from academic conferences |

We adopted the extraction sheet presented below, which has a standardized set of categories that were used across all reviews (Table 3).

Table 3 - Data extraction categories

| |
|---|
| Country |
| Author |
| Source type |
| Health system organisation |
| Health financing |
| PHC policy |
| PHC financing |
| Contracting arrangements |
| Provider payment mechanism |
| Provider identification |
| Design of benefit package |
| Monitoring provider performance, incentives |
| Population/community registration |
| Other remarks |

Results

To set the scene, we start this chapter with a summary of the key findings of two major studies of PHC purchasing in European countries. We then continue an overview of primary health care and PHC purchasing in the Philippines, Indonesia, Thailand, China, Spain, Estonia, Turkey, Ghana, Brazil and Colombia.

Overview of PHC purchasing in the European region

Saltman et al. (2006) provide an overview of the benefits, challenges and contextual conditions of PHC purchasing for EU countries. The authors found that it is difficult to attribute observed outcomes to specific PHC purchasing modalities, other concurrent PHC reforms, or health service organisation and health system factors. The authors found no evidence of direct and unequivocal relationships between PHC purchasing and outcomes of improved quality of care.

According to their findings, PHC purchasing can:

- lead to organisational improvements, including reducing the fragmentation of providers, improving allocative efficiency of investments, and stimulating service organization with concurrent devolution policies.
- contribute to more flexible service provision and an expanded range of services.
- lead to improved quality of care by stimulating adherence to guidelines for diagnosis, treatment and referral.
- increase cost-effectiveness of care, even if there is rather limited evidence for this
- stimulate general practitioners (GP) to become the patient's agent.
- increase the influence of or leverage for primary care as a policy option.

The authors also present several problems with the implementation of purchasing of PHC.

- Devolution of budgets under such policies increased the risk of inadequate implementation due to high management and transaction costs at the level of GP practices.
- PHC purchasing was found to carry financial risks and perverse incentives.
- It requires good governance arrangements, including effective monitoring and sanctions.
- It may affect equity adversely in that policies often do not have structural safeguards against unequal service provision.
- It was found that some PHC purchasing policies lack a strategic focus and that they are selective or fragmented in the services they stimulate.

Saltman et al. (2006) discuss several contextual conditions for successful primary care purchasing.

- They found indications that effective primary care purchasing requires the presence of certain organizational and professional conditions. The first include a supportive environment that facilitates needs-based purchasing, ongoing responsibility for care, and a clinical, financial and managerial framework within which strategic and operational purchasing decisions may be evaluated. The latter include the recognition of primary care expertise. In settings where adequate professional, managerial or regulatory controls do not exist, PHC purchasing was not or less effective.
- Additional elements required for successful implementation include a supportive policy environment, facilitative management, and leaders with well-developed skills in effecting change.

The report conclude that few countries meet all the preconditions for successful purchasing.

Busse et al., (2007) present an overview of Performance for Quality (P4Q) programmes for Primary Health Care in Europe. The authors present the most important characteristics of 14 P4Q programmes in primary care in 13 European countries (Croatia, the Czech Republic, Estonia, France, Germany, Italy, Latvia, Lithuania, Poland, the Republic of Moldova, Portugal, Sweden and the United Kingdom). The authors describe how the first P4Q programme in primary care was introduced in 2001 in the context of disease management programmes in Germany; the last in their review was introduced in 2016 in Poland. Most P4Q programmes are implemented at the national level, but Germany, Italy and Sweden have regional P4Q programmes.

- About half of all programmes are mandatory, while the other half are voluntary.
- Virtually all programmes focus on quality in chronic and preventive care.
- The indicators mostly focus on improved effectiveness of care, while responsiveness of care (including patient experience or patient satisfaction) is sporadically used.
- The indicators mostly focus on structures and processes and more rarely on intermediate or final outcomes.
- All programmes identified in this study include rewards for providers in the form of a bonus payment in relation to the measured quality of care. Penalties are not used except in Sweden.
- The bonus is usually small (<5% of total income) and is paid in relation to absolute performance.

These two studies provide interesting insights in terms of the existing evidence. The study by Saltman and colleagues indicated that PHC purchasing may have some benefits, but also that it requires specific context conditions to be met in order to be effective. Perhaps more importantly, they also found there was little to no evidence on a direct link between PHC purchasing and improved quality of care.

The study by Busse et al. focused more specifically on Performance for Quality (P4Q) programmes for Primary Health Care, again in Europe. An important finding of this study was the limited attention that was paid during the design and evaluation of these programmes to the outcomes, thereby limiting the usefulness of such studies.

The Philippines

Introduction

The Philippines is a middle-income country in Southeast Asia, with a population of 109 million people living in an archipelago of over 600 inhabited islands. Health care services are highly decentralised and managed by local governments. At the primary level, there were 2.587 rural health units and urban health centres in 2017, on average staffed by one doctor, two nurses and five midwives. The density of government primary care facilities is one per 40.500 inhabitants. The catchment population of these facilities are the residents of the village, municipality or city it is located in. Additionally, private clinics provide primary care services, and these tend to be found more in urban areas.

The rural health unit or health centre offers ambulatory care for common ailments, maternal and newborn care, treatment of TB, non-communicable diseases and animal bites. Consultations are free, as are some medicines and laboratory tests, but others may be paid for out-of-pocket at subsidized rates. Private clinics usually charge for out-of-pocket payments, unless covered by private health insurance.

To provide these services, local governments use funds collected through local fees and taxes, the internal revenue allotment from national government, and capitation fees from Philhealth. These funds are used to pay salaries for the staff (including incentives), provide free or subsidized diagnostics and medicines, and maintain or expand the infrastructure of the facility. The performance of the facility is monitored by the local government and Philhealth. However, the capacity of the former is limited and variable.

Country profile

The Philippines is a Southeast Asian archipelago of more than 7.000 islands. Its population is estimated to be about 109 million in 2020, with a population density of 362 people per square kilometre (Philippine Statistics Authority, 2020b). The country's location along the Pacific Ring of Fire exposes it to the hazards of typhoons, earthquakes and volcanic activity.

The Philippines is a unitary state with a presidential form of government. The powers of the three co-equal branches of government - the executive, legislative, and judiciary branch - are enshrined in the 1987 constitution that was adopted after the end of the Marcos dictatorship. The president is both the head of government and head of state and is elected by popular vote in a multi-party system (Dayrit et al., 2018).

The country is divided into 17 administrative regions that are served by regional offices of national agencies but do not have elected governments. The regions are divided into 81 provinces, which are further divided into 146 cities and 1.488 municipalities (Philippine Statistics Authority, 2006). These administrative units each have their own elected local governments. The Local Government Code of 1991 devolved governance from the national government and bestowed considerable autonomy to the local government units, also in health-related matters.

The population is young, with 30% being less than 15 years old, but trends reflect a growing elderly population (Philippine Statistics Authority, 2020b). The total-age-dependency ratio has decreased from 71,6 in 2000 to 58,2 in 2015, while the elderly-dependency ratio increased from 6,5 to 8,8. The annual population growth rate has declined from 2,3% to 1,7% in the same period (Philippine Statistics Authority, 2020b). There is a trend of increasing urbanization, with 51,2% of the population living in urban areas in 2015 compared to 45,3% in 2010 (Philippine Statistics Authority, 2019).

The Philippines' economy is considered to be dynamic, with an average annual growth of 6,4% between 2010-2019, although growth in 2020 contracted due to the COVID-19 pandemic. It is a

lower-middle income country with a GNI per capita of 3.850 USD in 2019. The poverty incidence was estimated at 16,7% in 2018, which presents a decrease from 23,3% in 2015 (The World Bank, 2020b).

The life expectancy at birth was 71,09 years in 2018; the infant mortality rate was 21,6 infant deaths per 1.000 live births in 2019 and the maternal mortality ratio was 1,2 per 1.000 live births in 2017 (The World Bank, 2020b). The general health status of the population has steadily improved in the past decades, but disparities across different population groups persist. Kraft et al.'s (2013) study of indicator trends through four national health surveys showed that the gap in neonatal, infant and under-five mortality rates between the poorest 40% and the richest 60% has not decreased. For both urban and rural residents, the trend for infant and neonatal mortality has been decreasing, but the rate of decrease for rural residents has been much slower. Some regions have shown a fast reduction in child mortality, particularly the National Capital Region and its adjacent regions, but some other regions have shown increasing trends instead (Kraft et al., 2013).

The country is undergoing an epidemiological transition towards chronic diseases, while still confronted with a high burden of infectious diseases, maternal and neonatal health problems. Cardiovascular disease is the leading cause of death, with cancer, diabetes and chronic respiratory diseases also in the top five. Tuberculosis and respiratory infections remain major causes of death, ranking second (Institute of Health Metrics and Evaluation, 2019).

Health service organisation

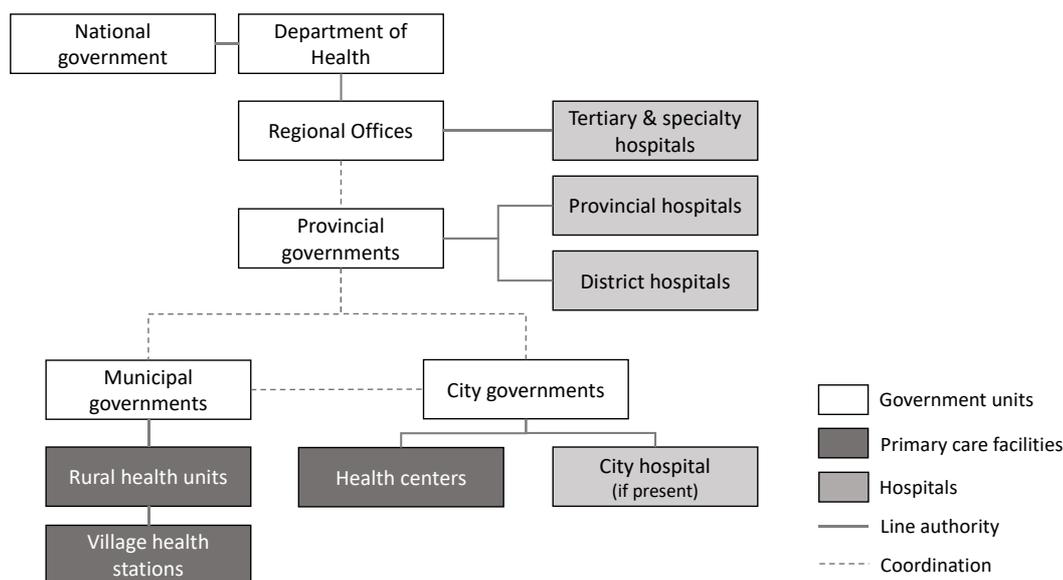
The Philippines has a mixed health care delivery system with both public and private service providers. In the public sector, health service delivery was devolved to local governments in 1991, giving them the responsibility for resource generation, planning and management of health facilities under their jurisdiction. Municipalities and cities have authority over public primary care facilities, whereas provinces manage district and provincial hospitals. The national government's Department of Health (DOH; equivalent to the Ministry of Health in other countries) retained the responsibility over regional and highly specialized hospitals (Congress of the Philippines, 2019).

Pre-devolution, the line of authority ran from the Department of Health down to the primary care facilities. With devolution, local governments and their health facilities are no longer under the direct authority of the DOH. In the relationship with the local governments, the responsibility of the DOH shifted to a role of coordinating relatively autonomous entities instead of direct supervision (Figure 1). Some of the issues arising after devolution have been described as fragmentation of health service delivery, duplication, increased inefficiency, disconnected budget planning, uncoordinated referral and gaps in services.

Private sector providers are largely market-oriented and are providing a significant part of the health service delivery in the country, especially in urban areas. In 2016, 64% of the 1.224 hospitals in the country were privately owned (Dayrit et al., 2018). In 2009, 73% of drug retailers were commercial drug stores (Reyes et al., 2011).

The distribution of health infrastructure and workforce shows a wide variation across provinces and municipalities. There is also a wide variation in use of health services, with poor households using health services least (Obermann et al., 2018).

Figure 1 - Organizational structure of health service delivery in the public sector of the Philippines



Health care financing

Health expenditure as a percentage of GDP was 4,46% in 2019, which is comparable with neighbouring countries. The country's total health expenditure in 2019 was 906 billion PHP (~17 billion USD), reflecting a growth of 7,9% from the previous year. Per capita health spending was at 6.662 PHP (~127 USD), up by 74 % from 2018 (Philippine Statistics Authority, 2020a).

Out-of-pocket spending has persistently been the dominant source of health expenditure. The out-of-pocket share has been above 50% in the past 15 years, only dipping below the 50% mark in 2019 (47,9%). This is higher than in Indonesia, Thailand and Vietnam. The national health insurance scheme accounted for 17,3% of total health expenditure, a slight increase from 15,8% five years prior. National government schemes and local government schemes were at 16,3% and 8,4% respectively, and voluntary schemes, including private insurance, accounted for 10,1% (Philippine Statistics Authority, 2020a).

Expenditure for ambulatory and preventive care providers specifically shows a large out-of-pocket share, making up 58% in 2014. Local governments had the next highest share in expenditure at 20%. Foreign assistance-based central government schemes accounted for 9%, whereas domestic revenue-based central government schemes accounted for 5%. Voluntary health care schemes, which include private health insurance represent 5%, whereas Philhealth accounted for only 3% (Racelis et al., 2014).

Social health insurance system

The Philippines' national social health insurance scheme is administered by the Philippine Health Insurance Corporation, also known as Philhealth. It is a government-owned and -controlled corporation established in 1995. It took over the administration of existing health insurance schemes lodged in different agencies for government employees, private sector employees and overseas Filipino workers. It is responsible for premium collection, management of a single, pooled fund, purchasing of health services, and designing benefit packages. It contracts with both public and private health care providers and does not provide health care directly (Congress of the Philippines, 2019).

Philhealth members classified as *direct contributors* include formal sector employees, informal workers (including self-employed professionals) and overseas Filipino workers. These members must pay 3% of their monthly income as their premium contribution, with a floor of 300 PHP (6 USD) and ceiling of 1.800 PHP (36 USD) per month. Under the Universal Health Care Law enacted in 2019, the income percentage and floor/ceiling amounts are set to increase annually until the year 2025.

Indirect contributors are members who belong to the poorest two quintiles of the population, senior citizens (65 years and older), and others who are financially incapable of direct contribution (Philippine Health Insurance Corporation, 2020). Their premiums are fully subsidized by the government, mainly through “sin taxes” collected on tobacco and alcohol.

In 2017, Philhealth reported that 93% of Filipinos were registered in its database and thus counted as members. However, in the National Demographic and Health Survey from the same year, only 66% of respondents reported having Philhealth insurance. Among those surveyed belonging to the poorest two quintiles, who are supposed to be fully subsidized Philhealth members, only 60% reported having Philhealth insurance. Members who were not aware they were covered thus would not have been able to claim their benefits (Dayrit et al., 2018). The UHC Law now mandates that all Filipinos are considered Philhealth members by virtue of citizenship, but the mechanisms for ensuring payment of premiums, especially for informal workers, are not well-defined.

Aside from premium collection, sin tax, and national government appropriations, the UHC Law also increased Philhealth’s sources of revenue by mandating the state gaming and sweepstakes corporations to give a specified part of their income to Philhealth (Congress of the Philippines, 2019).

Primary health care delivery

Facilities

Primary care is delivered in the public sector by at least one municipal rural health unit per municipality and several *barangay* (village) health stations. In cities, the *barangay* health centre is comparable to the rural health unit, but it serves one or more villages that may have populations equal in size to whole municipalities. In 2017, there were 2.587 rural health units and health centres, giving a ratio of one such facility per 40.500 population. Clients of these government primary care facilities come from an administrative catchment area, which is the village or municipality/city of residence (Dayrit et al., 2018).

Rural health units and *barangay* health centres are usually staffed by one doctor, two nurses, and five midwives; in 60% of cases, there is a medical technologist. A small proportion of these facilities - in the range of 5-13% in function of the region - do not have any doctor (Dayrit et al., 2018). Any medical graduate with a valid medical license may provide care as a primary care physician, whether or not they have received specialty training in a residency or fellowship programme.

Other types of health workers may be found in urban health centres rather than rural health units; these include dentists, nutritionists, pharmacists, physical therapists and radiologists. Village health stations are usually staffed by a midwife and several volunteer “village health workers” (Dayrit et al., 2018).

In the private sector, primary care is delivered by private clinics and outpatient departments of private hospitals. Some clinics are mall-based, operated by large private hospitals and health care companies (Dayrit et al., 2018). In recent years, some pharmacy retail chains and laboratory companies have started offering primary care clinic services in their facilities as well. More specific data on the number and distribution of private primary care clinics is lacking, but they tend to be located in urban areas.

The 2017 National Health and Demographic Survey reports that among those who visited a health facility in the past thirty days, 40% first went to a government primary care facility, whereas 23% visited a private primary care facility; the remaining mostly visited hospitals. The rates vary between urban and rural residents, with urban residents reporting similar rates (31% public vs. 28% private) and more rural residents going to public facilities rather than private (47,6% vs 20,3%). The rates per economic quintile show differences, with people within the richest two quintiles going first to private providers (average of 36% vs 18%) and people in the three lower quintiles visiting a public facility first (average of 54.1% vs 15.9%) (Philippine Statistics Authority, 2019). This may partly reflect the uneven distribution of facilities that favour urban areas, as well as higher expenses that tend to be incurred at private facilities and which deter poorer patients from accessing them.

Services

The services offered at government primary care facilities focus on outpatient consultations and the major national programmes for immunization, maternal health and TB. Basic laboratory and pharmacy services are offered as well, usually aligned with the major programmes. Other services, such as for other infectious diseases, non-communicable diseases, mental health, HIV and sexually transmitted infections, and dental services may also be offered depending on the available personnel and resources of the local government. Some primary care facilities provide birthing services. The Department of Health sets standards and guidelines for the different health programmes to be carried out at the primary care level, although these are implemented variably by the municipalities and cities (Dayrit et al., 2018).

Rural health units and city health centres participate in public health surveillance, which is coordinated by the city or municipal health office. The health staff also participate in disaster preparedness and relief operations.

Government primary care facilities refer patients requiring specialist or in-patient care to local government hospitals and other facilities, if these are present. For services not available within the city/municipal government-operated facilities, local governments may arrange formal referral agreements with other public or private facilities. However, such arrangements are not uniformly utilized by local governments. For example, in a project-based assessment of referral networks for maternal health in 2015, only four out of 21 provinces had formal referral arrangements (RTI International, 2018).

While there is no national gatekeeping policy, local governments may set financial incentives as a way of gatekeeping, such as waiving specialist consultation fees at the hospital outpatient department if a patient was first seen and referred by a primary care facility.

Governance

Because of the devolution, municipal and city governments have authority over public primary care facilities, as well as public health functions within their jurisdiction. The local health board, consisting of the mayor, the municipal or city health officer, the councillor for health, a private sector or NGO representative and a DOH representative, is responsible for proposing budgetary allocations for health service and public health operations to the local legislative body (Local Government Code, 1991). Local governments also set fees for certain health services that their facilities provide, such as laboratory tests, some drugs and specialist consultations.

While employed health workers, who are civil servants, receive salaries based on a national salary scale as per government position standards, local governments may set their own compensation rates for health care workers who are hired through a contractual arrangement. Local governments resort to such arrangements in response to a rule in the Local Government Code that the budget for personnel salaries shall not exceed a certain percentage of the total local government budget; contractual arrangements are not classified as personnel salaries and thus allow for leeway.

Private sector providers are independent entities. They are obliged to comply with local business and licensing permits, but the government has no oversight regarding fees that they charge to patients.

Financing

Out-of-pocket spending is the dominant mechanism for primary care financing, and a major component of this is payment for medicines at retail drugstores (Racelis, 2016). While government primary care facilities do not charge consultation fees, patients may be charged a subsidized fee for certain diagnostic tests, some drugs, and other commodities in public facilities. The low availability of medicines at primary care facilities induces patients to buy them at commercial outlets. Out-of-pocket payment is also the norm at private providers, unless the patient is covered by private health insurance (Dayrit et al., 2018).

The revenue sources for local governments that may be spent on primary care provision include the internal revenue allotment from national government, local fees and taxes, and capitation fees from Philhealth. Local governments are obliged to create a separate trust fund for Philhealth payments to their facilities so that the funds are earmarked for health services instead of merging with the general fund of the local government (Philippine Health Insurance Corporation, 2019). Local government expenditure includes personnel salaries, infrastructure, drugs and commodities, and other operating costs.

The Department of Health augments primary care staff through its health professional deployment programmes. It also procures vaccines, drugs and commodities for major programmes and distributes these to primary care facilities. Philhealth covers some primary care services as part of its general outpatient benefit package, maternity care, TB-DOTS, and animal bite packages (Dayrit et al., 2018).

Purchasing PHC

Purchaser

The following discussion focuses on Philhealth as the purchaser of primary care. While historically it has had a small share in expenditure for primary care, it is envisioned to play a bigger role under the UHC Law.

Beneficiaries

Starting in 2000, the earlier versions of the general outpatient package and other programme-specific primary care packages covered only specific types of Philhealth members, namely indigents under the Sponsored Programme and overseas Filipino workers. Only in 2018 was the general outpatient package coverage extended to employed members, senior citizens and retirees. Since 2020, Philhealth covers also informal workers, thus covering all membership types.

Providers

The identification of providers is largely a passive process. Both public and private primary care providers can initiate the application process. They need to comply with requirements in order to be accredited. Initially, only government facilities could provide the general outpatient packages; in 2015, private providers were allowed to be accredited providers as well. As of 2019, there were 2,405 accredited public primary care providers and 118 private providers (Philippine Health Insurance Corporation, 2019).

Package of services

In 2000, Philhealth introduced a general Outpatient Consultation and Diagnostic Package, which covered outpatient consultations and five basic laboratory tests. It further introduced programme-specific packages starting with the maternity care package and tuberculosis package in 2003, and benefit packages for malaria, animal bite treatment and outpatient HIV care in subsequent years. Providers must apply to be accredited separately for each package; hence a facility may be Philhealth-accredited for the general outpatient package, but not for the tuberculosis or maternity care packages if it did not meet the requirements or did not apply for the latter two.

The Outpatient Consultation and Diagnostic Package underwent several revisions, incrementally expanding the covered services, types of membership, and the household fee. In later versions, drugs for specific diseases were also covered and provided for free to the patient. The latest version offers more benefits and shifts to a per-individual fee with a higher rate, but this is yet to be piloted in selected provinces in 2021. Table 4 below summarises the evolution of the general outpatient benefit package.

Table 4 - Evolution of the Philhealth outpatient benefit package

| Year | Title | Member type | Providers | Services |
|------|---|---|--|---|
| 2000 | Outpatient Consultation and Diagnostic Package | indigent members of selected localities | Government health centres and RHUs | Primary care consultations Five laboratory tests |
| 2007 | Outpatient Benefit Package for Overseas Workers Program Members | Overseas Filipino Workers (OFW) | Selected tertiary and secondary hospitals | Consultation Treatment for 3 diseases 16 lab tests Seven preventive services |
| 2012 | Primary Care Benefit Package 1 (PCB1) | Sponsored OFW | Government primary care facilities, outpatient departments of government hospitals | Nine preventive services Seven lab tests Drugs for 4 conditions |
| 2015 | Expanded Primary Care Benefit Package – “Tsekap” | Sponsored only | Same public providers; private providers eligible | Nine primary preventive services 12 lab tests Drugs for 10 diseases |
| 2018 | Expansion of the Primary Care Benefit | Adds employed, lifetime, and senior | Same | Same |
| 2020 | Philhealth Konsulta Package | All types (including informal workers) | Same | Merges previous iterations of PCB 13 laboratory tests 21 drugs |

Obermann et al. (2018) state that PhilHealth lacks a clear process of defining and expanding (or reducing) its benefits. *“So far, there has been no process for systematic updating of the benefit package, and additional benefits have been included incrementally and on an ad hoc basis with political influences or lobbying from particular stakeholders being important drivers in the development of the benefit package.”* Such revisions were noted to be insufficiently geared towards strategically improving quality of care, access and equity (Reyes et al. 2016). In 2015, Picazo et al. (2015) described the benefit design process as being done in reverse, *“fitting the benefits within the given resource envelop, rather than determining the needed benefits, costing them out, and arguing for a needed premium increase”*.

Contracting and payment mechanisms

Philhealth contracts with and directly pays public and private providers who apply for accreditation and enters into standard contracts with them. The "Performance Commitment Contract" is Philhealth's main contracting tool, which providers must sign to be accredited. Through the Commitment, providers pledge to provide quality health services and to comply with policies on benefits payment, information technology, data management and reporting, and referral. Honda et al. (2016) note that this tool is relatively vaguely defined. Under the PCB1 programme, additional provisions for providers were defined, including the requirement for local government units to set up a trust account to ensure that the capitation fees are used for health facility improvement (Honda et al., 2016).

The outpatient benefit package has been paid at a per household rate instead of per individual. In 2000, it was paid at a rate of 300 PHP (roughly 7 USD) per family or household. The per-family fee was not meant to cover the cost of personnel time, which was paid for by local governments in public facilities. This rate was revised more than a decade later to 500 PHP (~11 USD) per family in 2012, and to 800 PHP (~18 USD) in 2015. In 2010, a costing study commissioned by the EU estimated the per capita cost of a proposed essential health package in the public sector to be PHP 1.120 (~\$25) for primary care per year. This included personnel costs (Modol, 2010). Programme-specific packages have their own per capita rates, such as for maternity care, TB-DOTS, and HIV.

In the latest outpatient benefit package called *Konsulta* (consultation), the capitation fee will be set at 600 PHP (12 USD) per person in public facilities, and 750 PHP (15 USD) with a co-payment cap of 500 PHP (10 USD) per person for private providers. Providers will receive 40% of the fees based on the number of registered members' first consultation of the year, and the remaining 60% will be based on a computation linked to the achievement of four performance targets, which involve the number of unique patients who consulted a primary care doctor, unique laboratory services done, unique patients who received prescribed antibiotics, and unique patients who received prescribed NCD medication. While previous versions of the package specified the percentage allocation of the capitation funds to health staff, services, and drugs and commodities, the latest version will allow facilities greater freedom to allocate their capitation funds for service support and improvement as they see fit (Philippine Health Insurance Corporation, 2020).

Monitoring PHC performance

In 2014, Philhealth initiated the Health Care Provider Performance Assessment System, which established procedures for monitoring access to Philhealth's benefits, provision of quality health care, and assurance of financial risk protection to its members. The tools included chart review, facility inspection, claims profiling or utilisation review, domiciliary visits, patient exit surveys and relevant reports from internal and external stakeholders (Philippine Health Insurance Corporation, 2015). Due to the lack of personnel to carry out for these activities, Philhealth tapped other programmes, particularly the CARES programme, for these tasks. The CARES programme consists of nurses hired as patient navigators in hospitals to guide Sponsored Programme members in utilising their benefits (Honda et al., 2016).

Philhealth has also pushed for electronic medical records in primary care facilities to facilitate claims submission as well as monitoring. In 2012, Philhealth incentivised submission of outpatient benefit claims electronically by adding a bonus amount to the capitation fee for each electronic claim. In the package's 2015 revision, electronic claims became part of the requirements for providers, but it is unclear how widely providers were able to comply with this, given the general underdevelopment of health information systems in the country (Dayrit et al., 2018).

Honda and colleagues (2016) noted several issues with Philhealth's monitoring systems: "*Quality standards are mostly imposed ex-ante through accreditation. Concurrent quality monitoring is not*

yet in place. De-accreditation of erring providers is rarely resorted to, as it penalizes members just as it does the providers. PhilHealth outpatient benefit packages evolved in a fragmented fashion, requiring repetitive accreditation and monitoring.” (Honda et al., 2016).

Discussion

The Philippines has a long-standing experience with devolution of its public administration, which has been introduced in the health sector, too. Due to the devolved structure of the health system, there are persisting challenges, for instance in ensuring continuity of care across different levels and in reducing health inequalities across provinces and municipalities, as local governments largely plan for and operate facilities independently.

The coverage and benefits package offered under the Philhealth programme has been gradually expanded over the last years. However, a number of issues underlying Philhealth impede the provision of primary care. First, Honda et al. and Obermann et al. agree with Dayrit (2018), who states that as Philhealth accounts for a small share of total health expenditure, *“PhilHealth cannot yet be considered a strategic purchaser of services.”* (Honda et al., 2016) (Obermann et al., 2018).

The minimal primary care benefit design and its slow expansion limited the impact of Philhealth on primary care provision. Picazo et al. (2015) pointed to the inadequacy of funding sources to purchase more comprehensive outpatient and inpatient services and argued for an increase in premiums, although the authors recognised that it is a politically sensitive move. The UHC Law has now added funding to Philhealth’s revenue sources as well as enabled the incremental increase in premiums. Philhealth will be in a more favourable position to expand primary care benefits, as members can be expected to demand more services for higher contributions.

However, barriers to access for the poor groups of the population remain as perennial problems (Obermann et al., 2018, Honda et al., 2016). Also regarding quality of care, issues persist. Important disparities in financial capacity, workforce and health infrastructure across municipalities and cities have led to variations in the quality of care and contributed to inequities in health status (Dayrit et al., 2018).

Furthermore, gatekeeping and referral systems often remain ineffective because many cities do not have city hospitals or filter clinics, referral bypass fees are not imposed and patients tend to go to the nearest health facility (Honda et al., 2016). These authors also identified the weak IT infrastructure and a weak health technology assessment capacity as hindering effective monitoring of Philhealth’s operations.

Indonesia

Introduction

Indonesia is an upper-middle income country with a population of 267 million scattered over 1.000 islands. While historically, the health system was highly centralised, in 1999 Government introduced a decentralisation policy that provided extensive administrative and fiscal power to the districts and municipalities.

Primary health care is provided by government sub-district health centres called *puskesmas*, which serve a catchment population of about 30.000 people, as well as by private facilities. Both types of providers are regulated by the district health office. Provision of services include comprehensive primary health care as well as a referral system. This is provided to all citizens who have subscribed to the *Jaminan Kesehatan Nasional* (JKN) social security scheme (formal employees, informal workers and the indigent). People have the freedom to choose the *puskesmas* in function on their satisfaction with the provider.

Primary health care is financed by a mix of funders, including the Ministry of Health, local governments and the *Badan Pelaksana Jaminan Sosial Kesehatan* (BPJS), the administrative agency for JKN. The government finances the salaries of personnel of the public facilities through annual budgets, while the BPJS reimburses both government and private facilities using a capitation method.

Country profile

Indonesia is the fourth largest country in the world by population: more than 267 million people live on more than 1.000 islands spread over an archipelago of more than 17.000 islands in Southeast Asia. It is a country in full demographic and economic transition, and where an important decentralization has been instituted since 1999.

Before 1997, the Indonesian political system was authoritarian in nature, with a strong influence of the state throughout all levels of society. In 1998, the Suharto regime came to an end and a process of democratisation started. Political democratisation went hand in hand with administrative decentralisation to municipal authorities (Usman, 2001), which gave substantial decision-making power to the elected political authorities at district and municipal level. The devolution brought major changes to the roles of the Ministry of Health and district health teams and in the process, it changed the Indonesian health system substantially.

Before 1998, the health sector did not differ from other sectors in that policymaking, programme design and implementation were highly centralised (Lieberman, 2002). Between 1960 and the late 1990s, large investments were made in education and health care, which resulted in improvements in health indicators (Simms and Rowson, 2003). However, on the political front, accountability was low and input from civil society in both politics and health policymaking was limited (Usman, 2001). From 1986 onwards, small steps were taken in the direction of the decentralisation of the health system.

More important changes came in the wake of the financial crisis that swept through Asia in 1997 and that hit Indonesia particularly hard. Unemployment increased while incomes fell and prices for rice and imported goods, including pharmaceuticals, rose steeply. This led to increased poverty as, faced with economic collapse, the government cut social expenditure (Simms and Rowson, 2003). However, this crisis was also a catalyst for political and institutional reform. Democratisation of the political process and an increased role of the parliament were quickly followed by two significant pieces of regional autonomy legislation in 1999: the devolution of governmental authority to municipal authorities and the concomitant fiscal decentralisation (Usman, 2001). While primarily a political and administrative reform, this has changed the decision-making process in the health

sector substantially by severing the previously hierarchical chain of command within the health sector and by allocating new responsibilities to actors within the health system and outside.

Life expectancy at birth was 69,1 years in 2015. Child mortality indicators have shown improvement, with under-five mortality decreasing from 52 per one thousand livebirths in 2000 compared to 31 in 2012. Infant mortality decreased from 41 to 26 per one thousand livebirths in the same period. Indonesia has a growing elderly population, with the proportion of those aged 65+ years increasing from 4,7% in 2000 to 5,1% in 2015. The dependency ratio decreased from 54,8% to 49,2% in the same period.

With the demographic transition came the epidemiological transition and an important rise in non-communicable diseases. Stroke and cancer were the first and second top causes of mortality in 2010, with tuberculosis coming in third. Indonesia continues to have one of the highest TB disease burdens in the world (Mahendradhata et al., 2017).

Health service organisation

The decentralisation in Indonesia was a 'big bang' policy change that was introduced at a relatively fast pace, much in contrast to the more gradual introduction in the Philippines.

- The Ministry of Health became the steward of the health sector. The central level was designated to be responsible for policy direction, standard setting, regulation and guidance and support to the provinces, districts and municipalities. The Ministry also operates some tertiary and specialist hospitals, regulates the employment conditions of the health workforce (including of municipal and district level workers) and runs vertical programmes.
- Provincial governments have provincial health offices, which manage provincial hospitals, provide support to the districts and coordinate cross-district health issues.
- Local political authorities at district and municipality level are responsible for a large range of operational tasks in the health sector, as well as in the domains of public works, education and culture, agriculture, communications, industry, land matters, transport and trade (GTZ-SfDM, 2003). District and city governments manage primary care facilities at community level (called *puskesmas*) and district hospitals if present through their District or Municipal Health Offices (Figure 2).

Private providers play an important role. The private sector includes facilities owned by organisations with religious affiliations, companies, groups of practitioners or individual practitioners (Mahendradhata et al., 2017).

Over the years, it became clear that the distribution of roles and functions were not always well defined, with gaps and overlaps in the mandates of central government, provincial government and district/municipality governments. In 2004, some recentralisation took place, assigning responsibilities back to the national and provincial level.

Health care financing

In 2019, Indonesia had a GDP of 1.119 trillion USD. Annual growth of GDP has been steady at around 5% during the last 20 years. Since 1995, health expenditure showed an upward trend. In 2017, health expenditure as proportion of the GDP was 2.989% and health expenditure per capita was 114.9 USD (World Bank, 2020). This is below the average of low- and middle-income countries. It should be noted that in 2020, Indonesia was newly categorized as an upper-middle class country by income, with a GNI per capita of 4.050 USD (World Bank, 2020).

previously existing insurance schemes for civil servants, military personnel, formally employed citizens, and subsidized schemes for the poor and near-poor (Mahendradhata et al., 2017). By 2016, JKN also absorbed the schemes of some local governments (Honda et al., 2016).

JKN's coverage has grown from 46% to 83% in 2019, as reported by BPJS (Prabhakaran et al., 2019). However, there are discrepancies with national household surveys, which showed a lower self-reported rate of having insurance under JKN. Theoretically, adherence to JKN is mandatory, but enrolling informal sector workers and collecting their premiums has been challenging. The lowest enrolment rates are among the middle quintiles, dubbed "the missing middle." (Agustina et al., 2019). A study has indicated that "*a limited understanding of health insurance and the poor availability of services*" may be a bigger factor in the low enrolment rate than the insurance premium (Dartanto et al., 2016).

JKN has incurred large deficits every year since its launch, causing delayed payments to providers. In 2018, its deficit was about 590 million USD (Erniaty and Harun, 2020). The government is mandated by law to finance JKN's deficits, leading to partial bailouts that allowed services to go on in some capacity. One of the main causes cited for these deficits are inadequately set contribution levels. In 2016, the average total contribution was only about \$30 per capita per year, much lower than the average total health expenditure per capita of \$129 per capita in 2014 (Agustina et al., 2019).

Primary health care delivery

Facilities

In the public sector, the *puskesmas* is the sub-district primary health centre, which serves a population of about 30,000 people. The catchment population tends to be smaller in rural areas. The *puskesmas* supervises and supports a network of primary care providers extending to the village level, including auxiliary *puskesmas* that serve a population of about 3,000 people. Mobile *puskesmas* use motorcycles, cars or boats to serve remote areas. Village maternity clinics and village health posts serve one or more villages (Mahendradhata et al., 2017).

In 2015, there were about 9,754 *puskesmas*. Some areas are not adequately covered by these facilities, such as in Papua where only 64% of sub-districts have a *puskesmas* (Agustina et al., 2019). A *puskesmas* providing only outpatient services must have at least one general practitioner, five nurses, four midwives, and one dentist. The required staff complement is higher if the *puskesmas* provides also inpatient services. In 2015, the proportion of health centres with an adequate number of general practitioners was 74,6%; the staffing rates other health staff were on average 53,3% for dentists, 62,5% for midwives, and 57,8% for nurses.

In the private sector, primary care providers include clinics operated by general practitioners, private hospital clinics, and midwives providing MCH services. A large proportion of government general practitioners also have private practices; in 2008 this was estimated at 80% (Mahendradhata et al., 2017).

Services

The six essential public health services provided at the level of *puskesmas* consist of: health promotion; disease control, including immunization and surveillance; ambulatory care; MCH and family planning; community nutrition; and environmental health, including water and sanitation.

Purchasing PHC

Purchasers

Currently, there are two purchasers of health care: (1) central and local government and (2) the BPJS, which is the only social security service purchasing agency. As explained above, PHC services are mainly paid by BPJS through the JKN scheme.

Providers

Primary care providers working in first line health facilities (including governmental community health centres), solo medical or dental practices, and private clinics and hospitals are eligible to be funded through JKN. *"By August, 2017, more than 20,000 public primary care providers, 907 public hospitals, and 1106 private hospitals were contracted."* (Agustina et al., 2019).

Puskesmas - the public primary care centres at community level - make up half of the providers funded by JKN and they cover the majority of JKN members (81 percent of all members). In Java, *puskesmas* cover on average 20.062 people (Prabhakaran et al., 2019). All public primary care facilities must be included in the JKN. The participation of private primary care providers is optional. *"Despite the increase of enrolled PCPs, only 42% of private clinics and 14% of private practitioners have joined the NHIS."* (Agustina et al., 2019).

All healthcare providers are required to be registered. Doctors and dentists are registered by the Indonesian Medical Council, pharmacists by the National Pharmacist Committee and other health professions are registered by the Indonesian Health Personnel Assembly. Providers also require a licence to practice that is issued by the local health office on condition of the provider having acquired the right professional credit units.

Package of services

JKN's benefits package is set and updated by the MoH. For JKN, ambulatory care capitation payments include the costs of pharmaceuticals according to the list of essential medicines. After obtaining health care in hospitals, patients can be referred back to primary health care setting to obtain the drugs. Primary health care providers can then propose claims to BPJS Health for the drugs provided. There are no co-payments allowed and no upper ceilings (Mahendradhata et al., 2017).

Payment mechanisms

BPJS Health pays contracted providers by capitation for outpatient services. Only obstetric and neonatal services, such as antenatal care, normal delivery and services for family planning are not paid by capitation but by reimbursement (Mahendradhata et al., 2017). The capitation fee includes consultation, simple laboratory tests and drugs for acute illnesses. Drugs for chronic diseases are covered separately (Agustina et al., 2019).

Capitation rates differ according to the type of facility where a member is registered. For most *puskesmas*, the rate is IDR 3.000 - 6.000 per member per month. For general practitioners and private clinics, the rates are higher at IDR 8.000 and IDR 10.000 respectively. The lower rate for *puskesmas* takes into consideration the fact that they also receive general budget support from the government (Prabhakaran et al., 2019).

Monitoring PHC performance

JKN uses an accreditation programme to determine the selection and retention of health facilities. In some cases, facilities have been contracted despite not complying with standards, usually in places with a lack of alternative providers (Ulandari and Indrayathi, 2016).

Agustina *et al.* (2019) point to the "*absence of integrated clinical and frontline health worker data, and the suboptimal health information system*" that hinders JKN from effectively monitoring the efficiency of service delivery as well as detecting medical misconduct and claim fraud (Agustina *et al.*, 2019).

Discussion

Since the devolution of the health system, which started more than 20 years ago, Indonesia made major progress in providing PHC through the *puskesmas* system. However, problems with access and coverage, and financing of PHC remain.

The social health insurance scheme called *Jaminan Kesehatan Nasional* (JKN) has greatly expanded its coverage during the last decade, except for people within the middle quintile of the population. Service provision under JKN is, however, variable. Honda and colleagues note that as a result of variation in supply-side conditions, infrastructure, implementation of the decentralization policy and the fiscal capacity of the region, the social security system cannot guarantee universal and coverage access, leading to inequities. The fact that there is poor or no evaluation of facilities or penalties for poor service or over-referral contributes to overspending. There are also no clear links between the capitation system and performance (Honda *et al.*, 2016).

The JKN scheme also remains underfunded. Honda and colleagues found that JKN is underfunded for the current levels of expenditure, which are due to the absence of capped hospital budget ceilings. Agustina *et al.* (2019) noted problems with the fees. "*Although initially accepted and in use by primary care providers, capitation and claim payments are considered too low given the required competency and service standards. Payments are based solely on members covered and resource availability without considering total facility burden and performance.*" (Agustina *et al.*, 2019). The resulting budgetary deficits lead to delays in reimbursements of accredited providers.

Finally, it struck us that our literature search identified relatively few papers on PHC in Indonesia. More research is required.

Thailand

Introduction

Thailand is a high-middle income country in the Indochina peninsula with a population of about 69 million people. It successfully expanded the coverage of its social health insurance system during the last two decades. Currently, over 99% of the country's population is covered by three public financing schemes: 1) a contributory Social Health Insurance scheme (SHI) for employees in the private sector covering 17% of the population; 2) a tax-based Civil Servant Medical Benefit Scheme (CSMBS) for government employees (7%); and 3) a tax-based Universal Coverage Scheme (UCS) covering all of those not covered by the other two schemes (76%).

The Ministry of Public Health (MOPH) owns most hospitals and primary care facilities, which form the backbone of a well-integrated health system. The basic primary care facility is the sub-district health centre, called *Tambon* Health Promoting Hospital (THPH). It provides prevention, health promotion and basic outpatient clinical services for a population of about 5.000 people. A network of 10-15 THPH plus a district hospital forms a contracting unit for primary care (CUP), which is contracted under the UCS to provide comprehensive primary care and basic inpatient, emergency and specialist care for a catchment population of about 50.000 people. Private facilities that meet the staffing and service requirements can be CUPs as well, particularly in urban areas. Services are free at the point of care if proper referral flows within the CUP are followed by the patient. The two other schemes have their own network of contracted public and private providers.

A complete purchaser-provider split exists between the MOPH as a provider and the financing schemes. The UCS has monitoring system to ensure quality of services, as well as a complaints-handling system and annual public hearings with members, providers and other stakeholders. The SHI and CSMBS have less public participation mechanisms in place.

Country profile

Thailand has a population of about 69 million people and a population density of about 136 inhabitants per square kilometre. The country is divided into 76 provinces with two specially governed districts, Bangkok and Pattaya. The provinces are grouped into 13 regions for health administration purposes. The provinces are further divided into 878 districts, which are further divided into 7.255 sub-districts called *tambon* (Department of Provincial Administration Thailand, 2018).

Thailand is a unitary state, with a constitutional monarchy and a parliamentary system. The prime minister is the head of government and the monarch is the head of state. The past two decades have been marked by political instability, but the health system has continued to develop despite this.

Thailand is a high-middle income country with a GNI capita of 7.260 USD (The World Bank, 2019). After periods of strong economic growth between the 1960s and the 1990s, the country suffered from the 1997 financial crisis. It took Thailand more than ten years to recover and eventually achieve high-middle income country status in 2011. More recently, slowing economic growth with household incomes and consumption growth stalling nationwide has impacted on poverty. The poverty incidence decreased from 65,2% in 1988 to 7,2% in 2015 and then increased to 9.8% in 2018 (The World Bank, 2020a).

The population of Thailand has been ageing rapidly over the last decades. The percentage of the population aged 0–14 years decreased from 45,1% in 1970 to 19,6% in 2010, while the percentage of people aged 65 years and over more than tripled from 11% in 1970 to 31% in 2016. The decrease of the population growth rate, from 3% in 1970 to 0,4% in 2015, is attributed to effective family planning programmes, which have been implemented since the 1970s (Jongudomsuk et al., 2015).

There has been a noticeable trend towards urbanization, with the proportion of those living in urban areas increasing from 43,4% in 2010 to 50,4% in 2015 (World Health Organization, 2017).

In the period 2001–2011, life expectancy at birth rose from 71,8 to 74,2 years, while infant deaths declined from more than 100 per 1000 live births before 1970 to 9,5 per 1000 live births in 2017. In 2018, life expectancy at birth was 76,7 years, the under-five mortality rate was 9,1 per 1000 live births and the skilled birth attendance rate was 99,8% (The World Bank, 2020a).

Non-communicable diseases have become the main cause of mortality (Jongudomsuk et al., 2015). Mortality from infectious diseases decreased five-fold between 1958 and 1997, but increased between 1998 to 2003. This was associated with an increase in mortality due to AIDS, tuberculosis and pneumonia. Universal antiretroviral therapy led to a decrease in AIDS mortality from 2004 to 2009. Tuberculosis remains a major public health problem, with Thailand counted among the 20 countries with the highest burden of tuberculosis in terms of absolute number of incident cases (Tangcharoensathien et al., 2018).

Health service organisation

The health service provision is dominated by the public sector. Of the country's 161.000 hospital beds in 2014, 67% were in Ministry of Public Health (MOPH) facilities, 14% were in other non-MOPH government facilities, and only 19% were in private hospitals. In 2015, the private sector provided only 14% of total outpatient consultations and 11,3% of total admissions (Tangcharoensathien et al., 2018).

In 2006, a provider-purchaser split was introduced, whereby the National Health Security Office (NHSO) took on the role of managing the UCS budget and fully financing its contracted providers (Intaranongpai *et al.*, 2012). MOPH facilities no longer received supply-side financing through the MOPH's annual budget allocation. The MOPH retained its regulatory function, consumer protection role and implementation of related public health laws (Jongudomsuk et al., 2015).

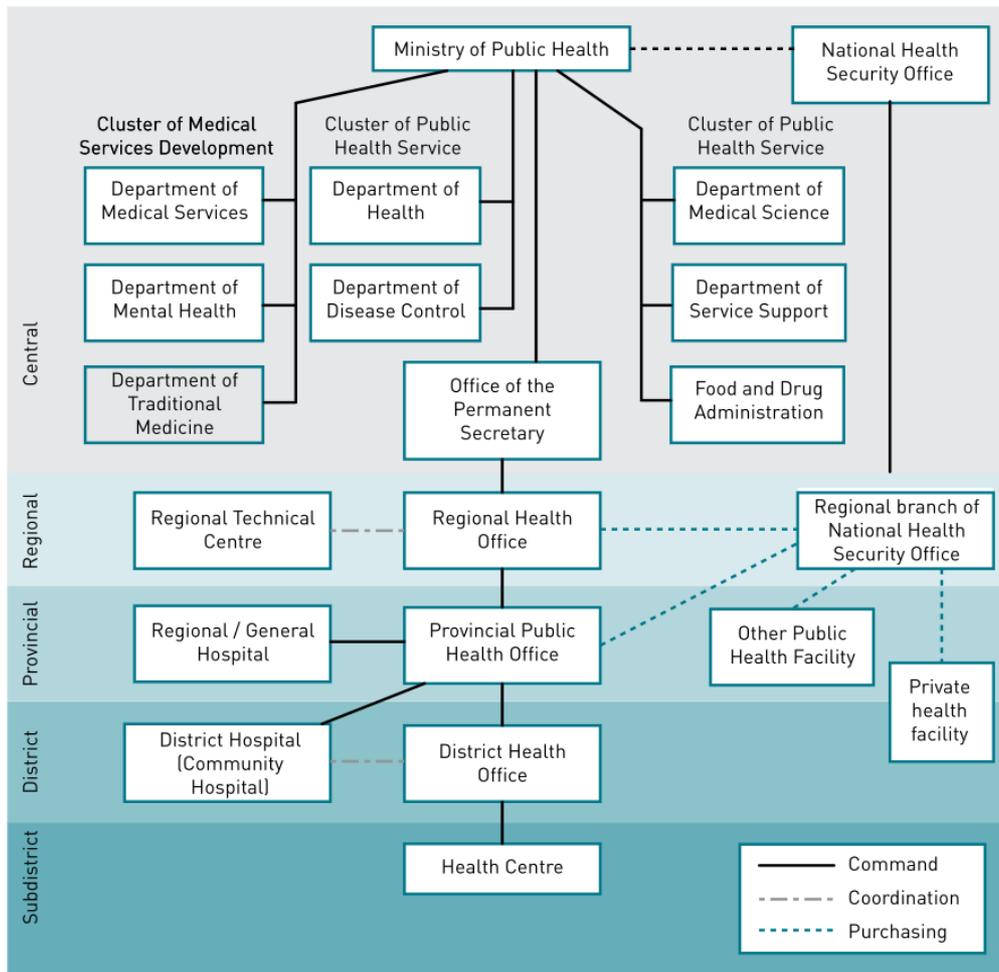
Under this system, the UCS capitation budget was directly allocated to the district hospital as the focal point of the contracting unit, and the role of the Provincial Health Office (PHO) also shifted. The National Health Security Office in the regions worked with PHOs to develop tools including strategic plans, targets and key performance indicators to redefine the role of PHOs as performance managers of local health care systems under the new financing arrangement (Intaranongpai et al., 2012). Figure 3 presents the health system structure.

Health care financing

In 2017, health expenditure as proportion of the GDP was 3,746% (The World Bank, 2020a). In 2018, Thailand's total health expenditure per capita was 276 USD (723 PPP), which is higher than ASEAN neighbours Indonesia, the Philippines and Viet Nam (World Health Organization, 2020).

Government schemes take up the bulk of current health expenditure at 79% in 2018, with 68% from government schemes (including non-contributory tax-based schemes), and 11% from contributory schemes. Out of pocket spending was at 11%, which is among the lowest rates in the region; it has been below 20% since 2006. Voluntary health schemes, including private insurance, accounted for 10% (World Health Organization, 2020).

Figure 3 - Organisational structure of the Ministry of Public Health OPH and relation with the National Health Security Office (Source: Jongudomsuk et al., 2015)



The population of Thailand is currently covered by three main government schemes:

- The Civil Servant Medical Benefit Scheme (CSMBS) is a tax-based non-contributory scheme established in 1980 to cover civil servants and their dependents. The scheme is managed by the Ministry of Finance - Comptroller General Department (Jongudomsuk et al., 2015). Outpatient services are paid using a fee-for-service mechanism whereas inpatient services are paid by Diagnosis-related Groups (DRG) without a global budget (Patcharanarumol et al., 2018).
- The Social Health Insurance (SHI) scheme is a contributory scheme established in 1990 to cover private sector employees. The tripartite contribution is equally divided among the employer, the employee and government. It is managed by the Social Security Office (SSO) under the Ministry of Labour. It utilises a capitation payment mechanism that covers both outpatient and inpatient services (Jongudomsuk et al., 2015).
- The Universal Coverage Scheme (UCS) was established in 2002 to cover all Thai citizens not covered by the other two schemes. It combined the previous Medical Welfare Scheme for low-income and vulnerable groups and the Voluntary scheme for non-poor households, as well as the remaining 30% of the population who were not included under any of the existing public schemes. It is managed by the National Health Security Office (NHSO) (Tangcharoensathien et al., 2020). It uses capitation payment for primary care networks, usually the district hospital system, and a DRG-based system with a national global budget

for hospitals. High-cost interventions such as dialysis, chemotherapy and antiretroviral treatment are paid on a fee schedule. UCS also covers health promotion and prevention for all Thais, as the two other schemes do not cover these, paid on a capitation basis with fee schedules (Patcharanarumol et al., 2018).

In 2017, the UCS covered 75,7% of the population, whereas SHI covered 17,2% and CSMBS 7,1%, for a reported total coverage of over 99% (Tangcharoensathien et al., 2020). In all three schemes, the purchaser-provider split is fully implemented, and supply-side financing was completely replaced by demand-side financing. The three schemes each have their separate pool for health care services for their own members. In all three schemes, there are no co-payments for covered health care services (Jongudomsuk et al., 2015).

Primary health care delivery

Facilities

The sub-district (*tambon*) health centre is the basic primary care facility in the public sector. In 2009, there were 10.347 public health centres in Thailand. A sub-district health centre caters to a catchment population of about 5.000 residents. It is mainly staffed by 3-5 public health officers, who are non-clinical personnel with degree-level qualifications in health promotion and disease prevention. The district health system consists of 10-15 of these health centres with a district hospital and serves a population of about 50.000 people (Jongudomsuk et al., 2015).

Since the 1970s, Thailand has heavily invested in building its public health infrastructure. By 1990, all districts had a district hospital, and by the early 2000s, all sub-districts had a health centre. This infrastructure investment was accompanied by initiatives to expand and develop the workforce, including mandatory rural service for all medical, nursing, dental and pharmacy graduates. A special track in medical and nursing education for students from rural and underserved areas was developed, with entry conditioned on working in their home district upon graduation. Clinical training centres were established in regional hospitals and public health schools were set up to train other paramedical personnel (Tangcharoensathien et al., 2018). Kitreerawutiwong et al. (2017) note, however, that these extensive initiatives have "*reduced but not eliminated the problem of uneven workforce distribution*". Indeed, doctors and nurses are over-concentrated in urban areas while some rural areas experience shortages in professional clinical staff (Kitreerawutiwong et al., 2017).

Services

The district health system is a network of 10-15 sub-district health centres and a district hospital, with a catchment population of about 50,000 residents. The network provides comprehensive primary care and basic inpatient, emergency and specialist services.

The sub-district health centre delivers health promotion and prevention services and treatment for minor trauma and basic illnesses. Some essential medicines, including those for common non-communicable diseases, are available at these facilities. In 2009, an initiative was started to transform the sub-district health centres into "*tambon* health promotion hospitals" (THPH) with the aim of improving quality of care. They remained operating as outpatient facilities with the addition of rotating medical and nursing staff from district hospitals to provide diagnostic and curative services. The facilities were also refurbished, upgraded with equipment, and provided with ambulances (Kitreerawutiwong et al., 2017).

Purchasing PHC

Providers

The UCS contracts with a contracting unit of primary care (CUP) to provide preventive and health promotion, ambulatory, inpatient, emergency and rehabilitation services. The staffing requirements for a CUP is as follows: one physician, two registered nurses and eight paramedical staff for a catchment population of 10.000 people, and one full-time pharmacist and dentist per 20.000 people (or a half-time pharmacist and dentist per 10.000 people). Health services must be available at least 56 hours per week, with laboratory and transport services.

In rural areas, a CUP is usually the district health system. In urban areas, where there is a greater number of facilities and workforce, a CUP may be a network of several health centres and one hospital, or a network of health centres or private clinics, or even a single private facility fulfilling the workforce and service criteria. In 2010, there were 937 CUPs in the public sector and 218 CUPs in the private sector. CUPs use a gatekeeping mechanism, with patients having to consult first at a primary care facility (unless for emergencies) before being referred to other facilities. Only then are patients exempted from co-payments (Jongudomsuk et al., 2015).

SHI has its own network of public and private facilities, which compete for SHI members; private contractors have higher share (65%) of total SHI members. SHI uses a gatekeeping mechanism similar to UCS. The CSMBS purchases ambulatory care from public hospitals and does not use gatekeeping; members can seek care at any public hospital or specialist (Patcharanarumol et al., 2018).

UCS members must register with their preferred UCS provider, which should be near their residence. Urban residents tend to have more options as more providers are present in the cities. In rural areas, the choice is often more limited, especially where the district health system is the sole provider. Members can choose to change their registered provider for a set number of times per year. Similarly, SHI members must register with a SHI-contracted provider of their choice and may change their registered provider for a set number of times per year. CSMBS members may go to any public health service provider for outpatient care (Jongudomsuk et al., 2015).

Package of services

The benefit packages of the three public schemes are similar in that they offer comprehensive primary care for all their members (Jongudomsuk et al., 2015). For medicines, the schemes utilize the National List of Essential Medicines (NLEM) as a positive list; medicines not on this list may be used if proven to be clinically indicated (Tangcharoensathien et al., 2020). In all three schemes, there are no co-payments for services included in the benefit package. For UCS and SHI, referral flows must be followed as well. Under UCS, the CUP pays for referred outpatient specialist care outside its network, when these services are not available within it (Jongudomsuk et al., 2015).

At the start, the UCS pragmatically adapted the comprehensive benefit package of previous schemes. Later on, it developed the capacity to carry out health technology assessments (HTA) and used rigorous assessments of cost effectiveness for new services, medicines and technologies in the benefit package. Currently, the Sub-committee on Benefit Package, which reports to the National Health Security Board, is responsible for reviewing and updating, including and excluding health interventions in the benefit package. Health technology assessment is used to generate evidence through several institutions, including the Health Intervention and Technology Assessment Program (HITAP), which is a research arm of the Bureau of Health Policy and Strategy of the MOPH; the Subcommittee on Essential Drug (ED) List, which reports to the National Committee on Drug Systems Development chaired by the Prime Minister; and the International Health Policy Program (IHPP) of the MOPH. The SHI and CSMBS also refer to the Essential Drug List for drugs in their benefit

packages, but HTA capacity for other aspects of care is not institutionalized as in the UCS (Jongudomsuk et al., 2015).

Payment mechanisms

Both the SHI and the UCS use a capitation contract model to purchase primary care. The UCS uses age-adjusted capitation for outpatient services based on the total number of members registered with the CUP and a global budget with DRG payment for inpatient care. The capitation rate is computed on the basis of the utilization rate and unit cost of services in the previous year and is annually negotiated between NHSO and the Budget Bureau. The UCS budget per capita increased from 35 USD in 2003 to 73 USD in 2010 (Jongudomsuk et al., 2015). Early in the scheme's implementation, the district hospital director, as the focal point of the district health system-based CUPs, had considerable control over the allocation of the received UCS budget. This led in some instances to prioritization of hospital services instead of prevention and health promotion. Provincial health offices took measures to reduce the discretion of the district hospital in the allocation of the capitation budget (Hughes et al., 2010).

SHI uses capitation to pay for outpatient and inpatient services to contracted networks, based on the number of members registered with the contractor (Jongudomsuk et al., 2015). The SHI capitation model, after having shown to provide a "decent quality of service" with optimal utilization rates, became the precursor of the UCS contract model with some improvements. UCS used a global budget with DRG for inpatient care - instead of including it in the capitation rate as in SHI - to prevent under-provision of admission services. It was feared the latter would occur by relegating expensive but indicated admission cases to ambulatory care to the detriment of patients (Tangcharoensathien et al., 2010).

Under the CSMBS, outpatient services are paid for on a fee-for-service basis. Originally, patients paid the fees first and were reimbursed later; this was changed to a direct payment by CSMBS to providers since 2003, as not all members could pay costs up front (Patcharanarumol et al., 2018). Due to its payment mechanism, the CSMBS generates the highest overall cost per patient among the three schemes: this is about 4-5 times the cost per patient under SHI or UCS (Jongudomsuk et al., 2015). Efforts to reform the payment model for CSMBS have been resisted by providers and patients, who enjoy certain benefits in the current system, such as being able to seek care at any public facility without gatekeeping (Tangcharoensathien et al., 2019).

Monitoring PHC performance

The NHSO has a monitoring system for the UCS, which includes regular audits of electronic records and online reports. Facilities may be visited by an inspector at any time, and any corrective measures ordered must be complied with within a certain time frame. However, there have been limitations of the number of visits conducted due to the limited available personnel for inspections. The NSHO has the right to terminate contracts with providers who do not meet the standard of care (Hanvoravongchai, 2013). The Provincial Health Offices also have a role as performance managers of the local health systems and monitor these using targets, key performance indicators, and benchmarks developed with the NHSO (Intaranongpai et al., 2012).

The UCS also has a well-established complaints-handling mechanism, which includes a call centre with a 24-hour hotline number and dedicated contact points for email, letter, fax or office visits. The NHSO also hires an independent polling agency to conduct an annual satisfaction survey of health care providers and beneficiaries. Member satisfaction with received services was consistently high at around 90% from 2003 to 2010. Provider satisfaction with the UCS was rated lower at around 60% in the same period, but an improving trend was noted (Jongudomsuk et al., 2015).

Legally mandated annual public hearings are an important mechanism for the NHSO to gather the views and recommendations of members, providers and other stakeholders, as well as to foster a

sense of ownership and support from stakeholders. The topics discussed in these hearings include the type and scope of health services, standards, fund management and public participation. Hearing for providers and members are conducted separately. Their participation, through representatives selected in coordination with provincial health offices and civil society organizations respectively, is mandatory (Kantamaturapoj et al., 2020).

Public participation is institutionalized through having representatives of civil society groups on both the National Health Security Committee and Regional Health Security Committees overseeing UCS implementation. There is also a specific national subcommittee within the NHSO to support public participation (Jongudomsuk et al., 2015).

For SHI, five trade union representatives represent the employee members in the Social Security Committee governing the scheme, alongside five employer representatives and five government representatives from the Ministry of Labour, Ministry of Finance, MOPH, Budget Bureau and the secretary general of the Social Security Office. The Social Security Office also has a complaints-handling system for SHI members, albeit without a clear legal framework, through a call centre hotline and website.

The Comptroller General Department (CGD) of the Ministry of Finance, which administers the CSMBS, directly reports to the director-general and has no governing body. It has an advisory board with government and member representatives, but health care providers are not represented (Jongudomsuk et al., 2015).

Discussion

Thailand's expansion of UHC through systematically developing its social security system is widely acknowledged as a success story. The UCS particularly demonstrated effective strategic purchasing practices for primary care, as well as health care in general, that have increased system efficiency while ensuring quality.

Patcharanumol et al. (2018) identify several best practices, including the use of closed-ended provider payment methods, the use of a national list of essential medicines, the systematic application of HTA in defining and updating the benefit package, the exercise of purchasing by the NHSO to reduce prices of key medicines and devices, and instituting the gatekeeping mechanism through the CUP to promote rational use of the health system (Patcharanumol et al., 2018). It should be stressed that these best practices are underpinned by supply-side readiness, which was gradually but systematically developed through sustained policies over decades (Patcharanumol et al., 2018, Tangcharoensathien et al., 2018).

Tangcharoensathien et al., (2010) also identified the use of global budgets with DRG payments for inpatient care, separately computed from the outpatient capitation rate, to avoid under-provision of care by "dumping" necessary admissions to outpatient care, while still controlling costs.

Contracting a network of primary and secondary care facilities instead of individual primary or secondary facilities also promotes continuity of care through different levels. Additional measures may be needed to ensure that budget allocation for primary care is not shifted to hospital care within the network, such as ring-fencing the allocation for primary care, as described by (Intaranongpai et al., 2012).

The incorporation of patient and community participation mechanisms into the legal framework of the UCS and the effective utilization of these mechanisms contribute to transparency and trust of the public in the scheme and helps to sustain it (Kantamaturapoj et al., 2020).

China

Introduction

China is home to over 1,4 billion people living on a land area of approximately 9,6 million km², making it the most populous and the largest country in the world. Its population has been ageing for some time, with 5,1% of the population being above 65 years old in 1980, 8,7% in 2012, and 11,3% in 2020. The dependency ratio in 2019 reached 42,2. Alongside this ageing population, rapid urbanization, environmental pollution, large-scale internal migration, emerging diseases, new risk factors linked to lifestyle, regional disparities (Gini index of 38,6 in 2016), and a lack of equity and efficiency in the health care systems have become serious issues of concern.

Since early 2009, a new round of health system reforms is being implemented in China, with the aim of attaining universal coverage by the year 2020. Financial protection mechanisms have been expanded across the population, aiming at making essential public health programs accessible to all residents of the country. The working conditions of health providers have been improved, and less dissatisfaction is expressed. However, the challenges of increasing costs, fragmentation of the care delivery system, and inequity, remain.

Country profile¹

Since the mid-1980s, China has witnessed rapid urbanization and massive internal migration: 61,4% of Chinese people were city dwellers in 2020, up from 51,8% in 2012. This phenomenon is due to the size of the migrating population leaving the rural areas for urban centres. It reached 236 million in 2012. The unevenly distributed population density is 140 people per km². The rate of urbanization in 2020 was 2,15%. The total fertility rate (TFR) remains low at 1,69 births per woman, whereas contraceptive prevalence was estimated at 84,5% in 2019.

China's male-to-female ratio at birth is 1,12 and indicates a preference of Chinese parents for their first born to be male. Many parents use prenatal diagnostics to determine the sex of their child, sometimes aborting female foetuses. Literacy rates for women aged 15 to 25 are quite similar to those of men (99,7%). Enrolment rates in primary, secondary and tertiary education tend to be higher for females than for males. However, this does not translate into better access to employment or good salaries.

Under the leadership of the Communist Party of China (CPC), the political system includes multi-party cooperation and political consultation, some degree of regional autonomy of ethnic minorities, and self-governance at the community level. The administrative system is composed of the State Council and local governments at provincial, municipal, county and township levels. In 2012, China had 34 provincial-level administrative regions, comprising four municipalities (Beijing, Shanghai, Tianjin, and Chongqing) directly under central government jurisdiction, 22 provinces (without Taiwan), 5 autonomous regions, and 2 Special Administrative Regions (Hong Kong and Macau), 333 municipal-level regional administrative units, 2852 county-level regional administrative units, and 40. 446 township-level regional administrative units (National Bureau of Statistics, 2014). Local governments oversee and lead activities taking place at their specific health departments. Local health departments also function under the technical guidance of health departments at a higher level.

In 1978, China undertook a vast reform of its economic system, transforming the planned economy, that lasted almost thirty years (1949-1978), into a socialist market economy. Following that reform and opening-up, China has achieved sustained economic growth for three decades and remains the

¹ Demographic, socioeconomic and health indicators presented in this section have been taken from the World Bank Development indicators databank (<https://data.worldbank.org/indicator/>) and/or the CIA world factbook (<https://www.cia.gov/the-world-factbook/countries/ghana/>), unless otherwise specified.

world's second largest economy since 2010. However, wealth distribution in China is characterized by utter inequality. According to a report by Beijing University, a third of China's wealth is under the ownership of just 1% of the population. Between 1995 and 2012, the Gini index rose from 0,45 to 0,73. The GDP growth rate has seen a constant decline in recent years. It was only 2,3% in 2019, dropping from 6,75 in 2015, and 5,95 in 2019.

The health status of Chinese people has seen considerable improvement since the late 1940s, when life expectancy at birth was only 35 years. It has steadily increased to 67 years in 1980 to reach 77 years in 2019. However, wide gaps persist between urban and rural areas, and among different regions and groups of people. In Shanghai, one of the most economically advanced cities, the life expectancy at birth in 2010 was 80,3 years, while it was just 69,5 years in Yunnan, a province with a much lower economic development level.

Child mortality in China has been steadily declining. The infant mortality rate dropped from 47,2 per 1.000 live births in 1980 to just 6,8 in 2019, and the under-5 mortality rate from 62,2 per 1.000 live births in 1980 declined progressively to reach 7,9 in 2019 (World Bank indicator databank). The urban-rural gap in child mortality is slowly narrowing, but still far from completely disappearing. Large variations in infant mortality exist between regions. In 2010, the infant mortality rate was 5,05 per 1.000 live births in the economically developed province of Shanghai whereas, it was as high as 16,06 and 27,0 per 1000 live births in Qinghai and Guizhou, less developed provinces.

The maternal mortality ratio in China declined from 120 per 100.000 live births in 1990 to 29 in 2019. The urban-rural gap is narrowing quickly. In 2012, the maternal mortality ratio was higher in rural areas (16,4 per 100.000 live births) than in urban cities (10,9 per 100.000 live births) and was higher in poor provinces than in wealthy provinces. The total fertility rate is only 1,69 births per woman of childbearing age (2020), but this low figure is clearly attributable to decades of one-child policy.

Since the 1990s, the most significant changes to the Chinese disease burden are attributable to the epidemiological transition. Non-communicable diseases (NCDs) have become the bulk of China's burden of disease. Of the approximately 10,3 million deaths that occur annually, 85% are caused by chronic diseases, accounting for 70% of the total burden of disease in China.² The majority of the NCD burden comes from cerebrovascular disease, diabetes, chronic obstructive pulmonary disease and lung cancer. The World Bank predicts that the number of NCD cases among Chinese people over the age of 40 may grow as far as three-fold by the year 2030. Over 50% of the growing NCD burden is preventable through management behavioural risks and adoption of healthy lifestyle (World Bank, 2011). Smoking, alcoholism, improper diets, and lack of physical exercise are the major factors leading to chronic disease in China. The prevalence of obesity (BMI >30) in 2016 was 10,9% of the adult population.

Emerging communicable diseases, such as severe acute respiratory syndrome (SARS), avian influenza, hand-foot-and-mouth disease, imported polio, and human infection with avian influenza A (H7N9) virus, are still looming in the background. In addition to these emerging acute infectious diseases, chronic infections such as viral hepatitis, tuberculosis and AIDS are heavy burdens. Since the end of 2019, there is the COVID-19 pandemic.

Health service organisation

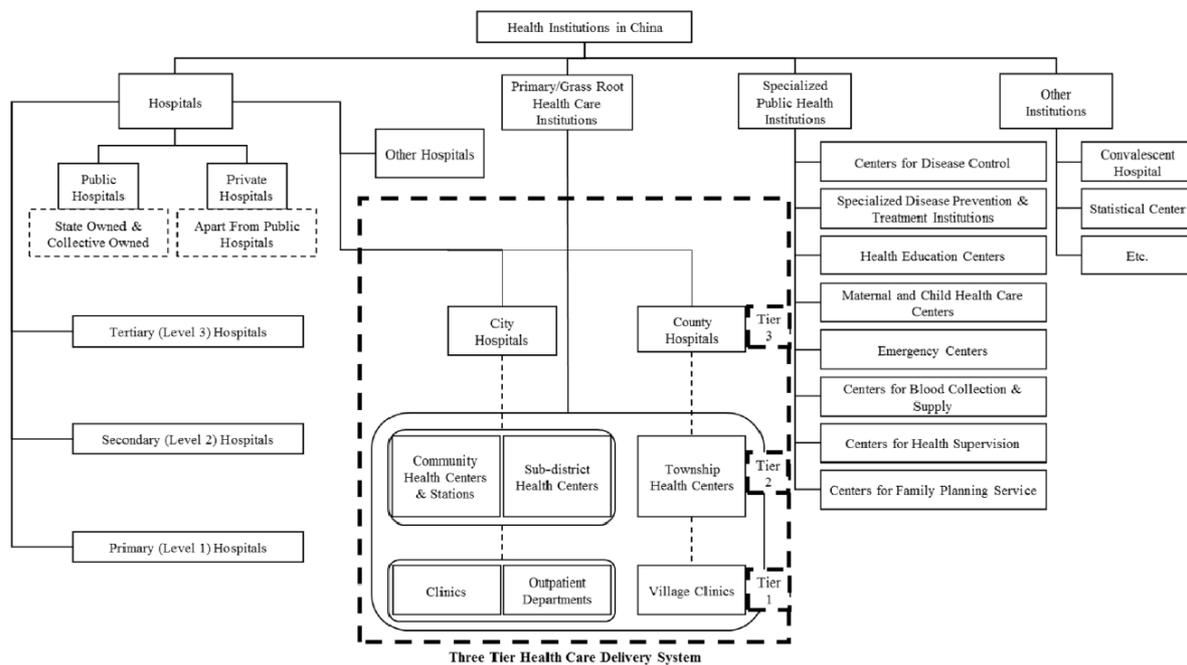
China has a three-tiered system for healthcare delivery: health organizations operate at county, township and village levels in rural areas, and at municipal, district and community levels in urban areas. The public health sector remains the main health care provider, with public hospitals handling 82% of inpatient care in 2017.

² Ministry of Health, National Development and Reform Commission and Ministry of Finance, (2012).

Public hospitals and clinics are situated in all Chinese cities. All major cities have hospitals specializing in different fields. Dental care, aesthetic surgery, and other health-related services are widely available at varying costs. Alongside medical facilities providing modern care, traditional Chinese medicine is widely used, and there are Chinese medicine hospitals and treatment facilities located all over the country.

Historically, most of the health care in rural areas was provided by clinics offering rudimentary care, with poorly trained medical personnel and little medical equipment or medicines. The quality of rural health services has improved dramatically since 2009. In an increasing trend, health care for residents of rural areas is provided by family doctors who conduct home visits. Such visits are reimbursed by social insurance (Wang et al., 2019). Figure 4 provides a schematic depiction of the Chinese health care system.

Figure 4 - China's health care delivery system (Source: Wang et al., 2018)



The thin dashed line explains the distinction between public/social hospitals. The thick dashed line indicates the Three Tier Health Care Delivery System in Urban and Rural areas in China.

Like most other countries, China has currently a mixed health system model that combines aspects of market and welfare state health systems. The reforms undertaken since the economic opening up of the early 1980s have yielded variable results.

Contrary to popular belief, the structure of the Chinese health system is decentralized. If the main orientations and guidelines are decided upon centrally, decisions on budget allocation as well as the methods of implementation are decentralised. Financial resources of the health system come from local taxes. Thus, the provinces have a budget commensurate with their wealth and the provision of care is often proportional to budget. The various reforms of the health system have so far never questioned the equity issues related to this type of decentralization.

Government subsidies to public hospitals had been dwindling since the 1980s. The hospitals found themselves in dire financial duress, prompting the Government to introduce the mark-up policy, whereby hospitals were allowed to capitalize on a 15% markup for western drugs and a 20-25% markup for traditional Chinese medicines (TCM). This induced an overconsumption of pharmaceuticals and in particular antibiotics, infusions, and injections, which is still observed today

(Wenhui and Wen, 2015; Xiang X. et al., 2012). About 70% of prescriptions contain antibiotics. One of the consequences of this inappropriate drug use is increased morbidity and mortality. The Government acknowledged that the mark-up policy, although financially favourable for providers, proved to elicit many adverse effects (Mao et al., 2013). In 2010, a national essential medicines policy (NEMP) was introduced for the sole purpose of rationalizing prescription practices and discouraging unethical behaviour.

The most recent major reforms, which were introduced in 2009, were preceded by periods of hesitancy and lack of consensus between a pro-market policy and a pro-state policy for the management of Chinese hospitals. The reforms aimed at promoting universal access to basic health care. Main tenets were adequate extension of public health coverage, strengthening of primary care and the definition of an equalized basket of basic care that is accessible to all citizens. All these measures go in the direction of a pro-welfare state policy.

In 2013, the Central Committee of the Chinese Communist Party decided to introduce reforms promoting private investment in hospitals and privatization of public institutions. These reforms appear to favour a policy with a pro-market ideology for hospitals. The orientations of the 13th Five Year Plan (2016-2020) related to both the health insurance policy with the target of universal coverage by 2020 and the development of private health services, including digital health, the development of private health insurance as well as greater standardization of medical information systems for better transmission between the parties concerned.

Nowadays, for treatment, the majority of Chinese patients goes to public hospitals, which cover 90% of hospital care. Large public hospitals continue to treat 50% of the medical consultations that could be managed at the primary health care level. As a result, in these health establishments, a doctor may consult between 60 and 80 patients per day. Very little time is spent on the consultation, whereas waiting times are prolonged for the patients.

A second specificity of the Chinese health system is the way in which public hospitals are administered and managed. These are public structures whose salary scale for hospital staff and career management is managed by the Ministry of Social Security and Human Resources. At the same time, they benefit from a great deal of management autonomy. The large public hospital structures are in fact only very marginally financed by the central government and the provincial states (approximately 7%). Indeed, Chinese public hospitals have been required to act like private enterprises to generate the resources necessary for their operations and for investment. The establishment of public health insurance (NCMS, URBMI, UEBMI – see below) during the first two decades of the 2000s, can be viewed as an instrument of a pro-welfare state policy, aimed at alleviating the problems of accessibility to care raised by fixing health prices within the health provision market.

To diminish the presence of patients waiting for care inside health establishments, a computerized online registration system linking the appointment booking to the patient's identity number is now mandatory in some provinces. In addition, internet platforms between practitioners or between patients and doctors are rapidly developing. Systems known as Electronic Health Record (EHR) or Electronic Medical Records (EMR) are being introduced in hospitals (and more slowly in health centres).

Health care financing

In 2018, China spent approximately 6.6% of its GDP on health care, which amounts to 1,665 billion USD. Twenty-eight percent was financed by the central and local governments, 44% was financed by

publicly funded health insurance, private health insurance, or social health donations, and 28% was paid out-of-pocket.³

The 2009 health system reforms proposed a universal health insurance system that consisted of three main social health schemes. The Urban Employee Basic Medical Insurance (UEBMI), introduced in 1998, was to provide healthcare access to urban working and retired employees in public and private sectors. The UEBMI is administered at municipal level. The UEBMI is funded by 8% deductions from employees' wages; of which 6% are paid by employers and 2% by employees. However, these rates can vary by municipality. It differs from other types of insurance schemes in that UEBMI is mandatory.

The New Rural Co-operative Medical Care Scheme (NRCMS) was established to overhaul the healthcare system, particularly intended to make it more affordable for the rural poor. The NRCMS was initially discussed in 2002 by the Central Committee, the highest decision-making authority in China. Pilots began in 2003, followed by rapid scaling up. By 2008, more than 90% of the total population was enrolled in NRCMS. NRCMS is a voluntary insurance scheme subsidized by local and central government. For this particular scheme, administration and risk-pooling are set at county level, much higher than NRCMS's village level. Funds of NRCMS are provided by local and central government (for poorer regions) together and extended universally across all parts of China. The NRCMS covers expenses in all levels of public healthcare facilities, though the rate varies by regions and by type of facilities. However, there are some difficulties that undermine the scheme's effectiveness in reducing out-of-pocket medical costs. To begin with, the benefit package of NRCMS is mostly limited to catastrophic and inpatient care. While these costs are covered, most outpatient visits require substantial individual payment. Secondly, the reimbursement rate varies across level of healthcare facilities, increasing the cost of high-level hospital visit. The details of the NRCMS show that patients benefit most from the NRCMS at a local level. If patients go to a small hospital or clinic in their local town, the scheme will cover from 70–80% of their bill, but if they go to a county one, the percentage of the cost being covered falls to about 60%, and if they need specialist help in a large modern city hospital, they have to bear most of the cost themselves, as the scheme would cover only about 30% of the bill. Furthermore, a fee-for-service model in the healthcare system provides incentives for healthcare providers to prescribe medicine or perform treatment in excess than is necessary to treat the patient.

In 2007, the Urban Residents Basic Medical Insurance (URBMI) scheme started to provide healthcare access to urban residents that are not covered by UEBMI: young children, students and other non-working city dwellers. URBMI is a government-subsidized, household-level voluntary medical insurance, administered at municipal level. The URBMI is funded mainly on individual contributions and partly government contributions. Additional government contributions are given to undeveloped central and western regions, and poor or disabled individuals.

Although funds for the two urban programs are pooled at the municipality level, those for NCMS are pooled at the county level. The NCMS and URBMI were successfully merged in 2016 to form a universal basic health scheme known as the urban-rural resident basic medical insurance (URRBMI), to not only improve administrative efficiency but also to do away with the discriminatory practices against the rural poor.

Insurance policies, including reimbursement rates, deductibles and annual caps, vary across regions. Deductibles are the amount paid out-of-pocket for covered health care services before the insurer (e.g., specific government agencies for these programs) starts to reimburse expenses. Annual caps are the maximum amount that the insurer can reimburse per insured individual (or household) each year. Reimbursement rates are the proportion of expenditures the insurer reimburses until the cap is reached.

³ Source World Bank Data - <https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?locations=CN>

To provide added protection to patients with critical illnesses, Catastrophic Medical Insurance (also called critical illness insurance) was initially launched in 2012 and implemented nationally in 2015. It covers critically ill patients, whose out-of-pocket expenses exceed the average disposable income per capita in the local area, providing extra reimbursement and removing the benefit cap.

The Medical Aid Program (also called medical financial assistance), which was launched in 2003 in rural areas and expanded in 2003 to the cities, provides an additional safety net. It was designed to provide medical aid to the poorest people by paying their medical insurance premiums and reducing out-of-pocket expenses following reception of reimbursement from the basic social health insurance schemes and catastrophic medical insurance. Funding for medical aid is mainly from governments, welfare lotteries, and social donations.

These investments into the public health system increased the number of health workers from 3,48/1.000 population in 2003, to 6,47/1.000 by 2017 and the number of hospital beds from 2,34/1.000 in 2003 to 5,72/1.000 in 2017, among other effects. Government investments also helped keep the prices of healthcare services low. Table 5 gives a summary of the main features of the three prevailing schemes before 2016 when the NRCMS and the URBMI were merged, mainly for administrative efficiency, but also to remove discrimination of those with rural registration.

Table 5 - Major characteristics of the three main insurance schemes (Source: Fang et al., 2019)

| Scheme | Launch year | Population covered | Coverage rate in 2015 | Pooling level | Premium contribution |
|---|-------------|--------------------------------------|-----------------------|---------------|-------------------------------------|
| Urban employee basic medical insurance | 1998 | Urban employees and retirees | 95% | City | Employer and employee |
| Urban resident basic medical insurance* | 2007 | Urban non-employed and self-employed | 95% | City | Government subsidies and individual |
| New rural cooperative medical scheme* | 2002 | Rural dwellers | 99% | County | Government subsidies and individual |

*URBMI and NRCMS were merged in 2016 to form the urban-rural resident basic medical insurance (URRBMI)

Research showed that these schemes helped improve healthcare utilization and residents' health conditions, especially for low-income residents (Pan et al., 2013) (Liu and Zhao, 2014). It also suggests that they represented a step forward on the road to effective universal healthcare coverage (Bernardi and Greenwood, 2014).

Public social security schemes covering general health care, emergencies, maternal care, unemployment, and pensions have been slowly extended to the rural from the urban population in China. Nowadays, social benefits can be claimed by the poor living in the previously neglected rural areas. However, unemployment benefits are only received by employees in the cities, since farmers are not considered employed. Moreover, one needs to bear in mind that entitlements are dependent to a large degree, on the amount an individual contributed to the system. Therefore, people with low income receive very limited services.

Another problem concerns social security benefits for migrant workers, as many employers fail to pay the required premiums, even though social security law obliges them to do so. This is also the case for Chinese citizens who work in the informal sector. China's urbanization regulations, which were introduced in 2014, emphasize the enforcement of social integration and the rights of migrant workers. That led to the merger of urban and rural social security systems, with the ultimate aim of abolishing discrimination against those with rural household registrations.

Primary health care delivery

China's primary healthcare system provides essential medical care as well as public health services. The two are meant to be closely linked in the areas of disease control and health promotion, and their integration is increasingly important. Since the launch of a new round of health care reforms in 2009, China has made impressive progress in developing primary health care, including strengthening the infrastructure of primary health care facilities, and it is acknowledged that many accomplishments have already been achieved (Blumenthal and Hsiao, 2015).

In recent decades, primary health care was gradually neglected in Chinese health reform (Cheng et al., 2017), although it is still considered a robust strategy. Under the 'Barefoot doctor' model, first introduced in the 1950s, farmers received between three and six months of medical and paramedical training and worked in their rural villages to offer primary medical services, applying a mix of allopathic care and traditional Chinese remedies. The barefoot doctors contributed greatly to the campaigns to fight against malaria and schistosomiasis. They also helped to sharply reduce the child mortality rate. At the time of its implementation, it was lauded by many (including the WHO) for its results, mainly in terms of public health. The contributions of the barefoot doctors remarkably indeed improved the health status among China's rural residents through the provision of low-cost and locally suitable services (Blumenthal and Hsiao, 2015). The barefoot doctor system was dismantled in the late 1980s. The policy then shifted away from primary health care to hospital-centered care (Wang et al., 2019).

In recent statements of official health policy, the government has reiterated its will to strengthen PHC, adopt the tiered service delivery system, and base the entire system on primary health care services. However, decision-makers still appear to overlook primary health care institutions, and opportunities for promoting primary health care policies have been scarce. That explains the inappropriately low level of investment between primary health care institutions when compared to secondary hospitals.

Purchasing PHC

Basic *public health* services are funded by financial provision per capita, while basic *medical* services are funded by basic medical insurance through mixed payment methods such as fee-for-service, case payment (Diagnosis-Related Groups for hospitals), and global budgets. Patients also pay their required co-payments out-of-pocket on a fee-for-service basis.

The provider payment system for primary health care in China can be divided into two components: payments to the facilities, as primary health care institutions, and internal remuneration of the individual providers. At the organizational level, facilities have three main sources of financing: 1) direct government subsidies, 2) user fees paid from out-of-pocket and health insurance, and 3) the mark-ups from the sale of prescribed drugs (Yip et al., 2012).

With the exception of Chinese traditional medicines, the income from drug mark-ups was lost after China's new National Essential Medicines Program (NEMP) was initiated in 2010. Its purpose was to eliminate economic incentives to primary care providers by overprescribing drugs or prescribing unnecessary drugs. Consequently, drug expenses as a percentage of service users' (outpatient and inpatient) expenses, dropped significantly (Wenhui and Wen, 2015). In order to compensate for the lost revenues owing to the zero-mark-up policy, primary health care institutions were given a government subsidy to support operational costs, including maintenance of physical infrastructure, equipment procurement, and public health services like the National Essential Public Health Services Package (NEPHSP) (Yip et al., 2012; Barber et al., 2013). It is noteworthy that the difference between revenue and expenditure will only be subsidized by the government after a performance assessment within the framework of the new provider payment system (Mao et al., 2013). The financial subsidy as a percentage of total income increased from 19.30% in 2009 to 41.56% in 2015.

At the individual level, providers receive a salary that is controlled by two factors. The first is whether the PCP is a member of a Public Service Unit (PSU). Most PSUs in China have a special human resources management arrangement, referred to as the headcount quota system, which defines the maximum number of staff approved by the government. The headcount quota system is an essential element in budgeting, as it helps define funding allocations.

The second factor that comes to play in determining an individual provider's remuneration is the amount of annual funding available per quota position. The wage is generally divided into two parts: Basic Performance Pay and Encouraging Performance Pay. The Basic Performance Pay is often fixed and generally accounts for 70% of the wage. However, it varies from person to person because it is linked to each individual provider's grade, professional title, seniority, and the local price index, depending on the state of the local economy. Encouraging Performance Pay is flexible and logically depends on each provider's workload and performance, but that's not often the case. A recent national survey showed the bonuses for PCP's that represent 30% of their income could have played a part in incentivizing quality of care (Li et al., 2017). However, these bonuses were most often determined by the quantity of care delivered rather than the quality (Li et al., 2017). Moreover, performance management in local governments is more process-oriented rather than results-oriented, with supervision sometimes being weak and penalties for poor performance being exceptional (Yang and Dai, 2013; Zhao et al., 2013).

Monitoring PHC performance

There exists a functioning monitoring and evaluation system that is built in that of the performance-based salary system. However, primary care managers consider the volume of services provided rather than their quality. The bonus salary is in practice equally distributed among the staff of a given institution. This practice is due to the fact that managers appear to be concerned about matters of fairness. This may be a strong disincentive for primary health care professionals to individually deliver a higher quality of care. Adding a component that combines both volume and quality performance indicators, should be considered seriously. This would generate a certain level of variation in the individual performance bonus (Ma et al., 2019).

Discussion

Since its last round of health sector reforms (2009-2020), China has made remarkable progress in reconfiguring its health system. It has consolidated the social health insurance schemes, integrated health providers from different sectors, restructured the public hospital system and significantly improved financial access and coverage for disadvantaged population groups. The reforms have also improved health outcomes overall. The Chinese government has largely met its goal of achieving universal health coverage by 2020, despite the fact that the basic benefit packages of medical insurance are quite small.

However, many challenges of a structural nature, not only remain, but are increasing gradually in intensity. The annual growth rate of the GDP continues to decline, while the average age of the population is increasing, adding pressure on the relatively fragile health insurance system.

Currently, the insurance schemes cover the vast majority of the population, and discrimination against the rural poor has been drastically mitigated by merging the NRCMS and the URBMI. However, despite relatively low caps on curative services co-payments on medicines, out-of-pocket expenditure remains high for many.

Hospital doctors continue to charge excessive and arbitrary fees. They are also open to under-the-table payments. This causes a high level of uncertainty as to the predictability of costs. For example, the system is not designed to treat expensive chronic diseases, and the poor often cannot afford the co-payment.

The government has abandoned the one-child policy and now encourages young families to have up to three children. However, this has so far had little impact on the birth rate.

There is a need to address the rampant issues of inequity and disparity in access to primary health care that continues to plague the country. This applies to service users as well as providers, especially those involved in primary healthcare. Further consolidating the schemes and their risk pooling levels would reduce the volume of out-of-pocket expenses for the rural populations, as well as for the urban non-employed or informal sector workers.

Considering the size of China, its massive and ageing population, the threat of emerging communicable diseases as well non-communicable diseases, one can only acknowledge that great progress has been achieved in the last two decades, especially since the reforms of 2009. However, the challenges are manifold and require sustained attention and continued political commitment (Tang et al., 2014). China will likely pursue its reforms and implement new policies and programs to respond to the health needs of its citizens.

Spain

Introduction

Spain is a south-European country, which in 1978 returned to democracy after almost 40 years of the Franco dictatorship (Borkan et al., 2010). A new constitution was adopted and Spain gradually evolved from a highly centralised to a quasi-federal state, with 17 Autonomous Regions (*Comunidades Autonomas*) which enjoy legislative, executive and judicial authority. Spain decentralised its health system in the wake of the democratisation and is known for its strong PHC policies.

Country profile

Located in the south of Europe, Spain has a population about 47 million inhabitants.

From 2008 onwards, the health system of Spain has been seriously affected global by the financial crisis of 2008 (Gené-Badia et al., 2007). Austerity measures were introduced, government expenditure was cut - including on health -, unemployment increased and household incomes dropped substantially. Yet, Spain's citizens still enjoy the highest life expectancy at birth in Europe (Bernal-Delgado et al., 2018); life expectancy is 85 years for women and 79 years for men. Its ageing population contributes to the relative high burden of chronic diseases.

Health service organisation

Spain's health system is characterised by its strong Primary Health Care policies and its decentralized structure.

In line with the reforms towards a quasi-federal state structure, Spain decentralized its health system during the period 1976-1996. The health service delivery was devolved and integrated into the mandate of the Regions. The responsibilities and competences related to health were gradually transferred to the Autonomous Regions, where Regional Departments of Health are in charge of health. The latter report to the regional parliament (Giovanella and Stegmuller, 2014). The national Ministry of Health is responsible for overall stewardship over the health system. The Interterritorial Council of the National Health System consists of the 17 Regional Ministers of Health and the National Minister of Health and is responsible for national strategy setting, the overall coordination of the health system, and the monitoring of health system performance. It works closely with the national Ministry of Health.

The Spanish health system is composed of three statutory subsystems:

- the universal national health system (Sistema Nacional de Salud, SNS), consisting of the 17 Autonomous Regions
- the Mutual Funds, catering for civil servants (MUFACE), the Armed Forces (MUGEJU) and the judiciary (ISFAS)
- the Mutualities focused on assistance for Accidents and Occupational Diseases, known as "Collaborating Mutualities with the Social Security"

Spain simultaneously reformed the financing of the health system, from a social insurance and hospital-focused system to a tax-based universal coverage system. This was intended to further strengthen primary health care. The political and administrative decentralization allowed for regional experimentation with financing arrangements, which were subsequently, cascade-like, adopted by other regions.

Health care is provided mainly through public health services and free of charge at the point of service except for drugs and some orthopaedic services. Coverage is quasi-universal, reaching 99,1%. (EC, 2019) Today, 15% of the population has supplementary private health insurance.

Health care financing

Spain has currently a population of almost 47 million, a GDP of 1,394 trillion USD and a GDP per capita of 29.613 USD. Health care financing increased annually since World War 2 until the financial crisis of 2008, which led to austerity measures and a reduction of health budgets.

The country spends 9,3% of the GDP on health. Per capita expenditure in Spain was 2.506 USD (current dollar) in 2017. Public expenditure currently contributes to 71,1% of total health expenditure. This decreased from 1995 to 2005 (from 72,2% to 70,6%), increased between 2005 and 2010 (up to 74,4%) and dropped again until 2015 (71.1%). Private health expenditure (as a percentage of total health expenditure) decreased over the same period until 2010, when it started increasing to 28,9% in 2015. Within the private health expenditure, voluntary health insurance grew from 1995 to 2005 (12,1% to 18,9%), decreasing thereafter and reaching 14,9% in 2015. Out-of-pocket (OOP) spending as a percentage of total health expenditure decreased until 2010 (from 23,5% to 22,1%), increasing again thereafter (to 23.9% in 2015). After 2015, the trend was reversed and government spending on health increased again (Bernal-Delgado et al., 2018).

Some papers comment on the effects of austerity measures introduced after the 2008 financial crisis and its effect on the health budget. Spain has a relatively well-functioning health system in relation to % GDP compared to other European countries and it has the highest life expectancy in the EU, despite the impact of the financial crisis (EC, 2019). There remains, however, a south-north divide. (Lopez-Casasnovas et al., 2005). Studies on intra-regional disparities are scarce.

Primary health care delivery

In 1979, the speciality of family medicine was instituted in Spain, which prepared for future reforms towards a primary care-based health system. The decentralisation of health responsibilities towards the Autonomous Regions in 1984 led to innovative primary care schemes in some regions. In 1986, Spain introduced the General Health Act, which restructured the Spanish health system on the basis of an National Health Service model. The act specified the core activities to be provided within primary care and its geographical organization. It emphasized principles such as gatekeeping by family medicine doctors, free access to health care and the central role of multidisciplinary teams. Within the new structure, the Interterritorial Council of the National Health System the meta-governor and steering the Autonomous Regions. In practice, it is sometimes superseded by the national Ministry of Health, which can intervene through executive regulation.

The latest reform, the Strategic Framework for Primary and Community Care, was initiated in 2019. Its objectives are: (1) to strengthen the governance role of the Interterritorial Council over primary care, (2) to consolidate a new financial and human resources policy, (3) to improve quality and coordination of care, (4) to reinforce the community's orientation of primary care and (5) to improve information and communication technologies. (EC, 2019) (Bernal-Delgado et al., 2018)

Spain has been introducing innovations in the primary care system. There are experiments in some regions with the integrated management model, where integration of services at any level is coordinated by a single manager, while in other Regions, privatization of primary care services is organised through public private partnerships (known as *Entidades de Base Asociativa*, and based in Catalonia).

PHC provision

The main actors at the level of the Autonomous Regions (AR) are the Departments of Health, playing the role of a local Health Authority. They are responsible for regional regulation, planning, budgeting, the third-payer role and for implementing national health policies. They set the standards for quality of care, infrastructure planning and facility management within the region.

The AR contracts health care providers, enjoying quite some freedom over the nature, length and content of these contracts. The AR reimburses pharmacies for drugs dispensation according to national price lists and co-payment mechanisms. Specialized agencies support the Departments and cover health services provision management and public health action (epidemiological surveillance, health protection and health promotion). Some ARs have a health technology assessment agency, often part of a national network.

In order to ensure equal access of the population to primary health care, the General Health Act defines health areas (*areas de salud*) which are further split in Basic Health Zones. These are managed by primary care management structures: within the basic health zones, primary care is provided by primary care teams, consisting of specialised doctors and nurses. The Health Areas typically have a hospital to which the PHC teams refer their patients (Borkan et al., 2010).

Private sector providers offer voluntary health insurance schemes to individuals and are the alternative network for 80% of the civil servants (who have the choice to remain within the public NHS or to seek care in the private sector). Private providers also provide dental care and optical care not covered by the national health system.

PHC providers

With a few exceptions, most primary health care professionals work within primary care teams and are salaried civil servants. Already in 1980, Spain has chosen for multidisciplinary teams in primary care. This concept of a multidisciplinary team, working in the same centre with common goals, contributed to the rapid improvement in the health outcomes of the Spanish population.

The primary care teams consist of family medicine doctors, nurses, midwives but also paediatricians, who care for children below 15 years old. In most regions, the role of nurses has been expanding, moving towards nurse-practitioner roles. Prevention, promotion, home care and community activities are carried out in coordination between doctors, nurses, dentists and social workers. Such coordination is ensured by organising joint meetings and activities.

Health professionals are required to be licensed by a professional body, such as medical colleges or nursing colleges among others, which are decentralized to the AR level. (Kringos et al., 2015) Each health care provider develops their clinical guidelines, protocols and mechanisms of continuing medical education (CME). Scientific societies and professional associations of primary care are the main actors contributing to both CME and the development of clinical guidelines.

PHC services

Until 2012, the coverage of the National Health System was almost universal (99.5%) and it covered a comprehensive package of benefits to all citizens, who were entitled independently of their labour status and personal wealth. Spanish primary health centres provide a wide range of services, from health promotion activities and prevention to diagnosis, care and follow-up for acute and chronic conditions. Screening for particular diseases, cancers or cardiovascular risk factors is carried out by the multidisciplinary teams, as well as home care and community care (Kringos et al., 2015).

From 2012 onwards, new legislation regulates coverage conditions, the benefit package and the participation of patients in the NHS funding. (EC, 2019) The benefits package was redefined:

- (1) a basic package for all insured and their dependents, which includes essential activities, including health care prevention, diagnosis, treatment and rehabilitation services, as well as emergency medical transportation medical visits and hospitalizations. It also includes specialized health care benefits (e.g. diagnostic and therapeutic procedures provided as out-patient specialized care, inpatient acute or long-term care, day-care care, palliative care, all mental health care, home care, organ transplants, and emergency care.
- (2) a complementary package, to which cost-sharing applies and which includes outpatient pharmaceutical prescriptions and specific orthopaedic care
- (3) an accessory package, which includes non-essential activities. This third package has not yet been well-defined.

Purchasing PHC

As discussed above, the Autonomous Regions are the purchaser of care at the level of the regions. Their health departments purchase health services from another public entity called the regional health service, which in turn contracts service providers on an annual basis, and where needed private providers. Exceptions are Valencia, where the AR contracts private providers who it pays through a capitation system, and Catalonia, where a not-for-profit hospital network is contracted.

In general, primary care, hospital care, preventive activities and long-term care services are contracted by the regional health service to primary care management structures of the health care areas. The regional health service monitors the performance of the providers.

In turn, the primary care management structures contract each primary care team in the area (that is, the group of specialized doctors and nurses in charge of the primary care in each basic health zone) through a negotiated process. Primary health care centres are usually bound by contracts that include acute, chronic and preventive care services. These are funded through block grants or global budgets (*contratos-programa, contratos de gestión or contratos clínicos*), which are adapted in function of the demographics of the local areas. The contracts define priority areas and often include some incentives for reaching specific targets within prescription of drugs. These agreements indeed prescribe the volume of services and the overall cost, but also quality-oriented measures to stimulate providers to contribute to the regional strategic objectives on quality and safety. They often include waiting list reduction programmes, extensions of day-case surgery, and reductions of unsafe events. (Lopez-Casasnovas et al., 2005) The allocated budgets are based on capitation criteria (corrected for demographic structure and population distribution).

Since 2010, some health departments contracted integrated services – services that were usually separately provided by primary care or hospital providers with a weak coordination among levels. For instance, in the Basque country, Integrated Health Care Organizations have been contracted. In Catalonia provider are contracted to provide all services for a defined population (hospital care, primary care, mental health, long-term care). In both cases, the compensation mechanism follows a population-based payment model.

Payment modalities

Most primary care providers are civil servants. Their salary consists of

- on-duty payments, including the salary and a bonus based on length of service. The salary of family practitioners also has a capitation component related to the size of the population they cover and which reaches to 10-15% of the total salary. In some Regions, the incentives cover all the health care workers of a primary health care team to reinforce teamwork and to strengthen the multidisciplinary approach. The same occurs with nurses and other health care professionals and personnel.

- additional stipends: these are defined by personal performance and personal achievements.

Discussion

Taking into account Spain's health expenditure, with figures around 6% of GDP, and compared with health outcomes, the primary care system is considered to be highly cost-effective.

The implementation of the PHC model has been made possible through the recognition of family medicine as a speciality, the devolution to the regions with the designation of local health areas, and the institution of basic health zones, PHC structures and PHC teams. A large investment in infrastructures and facilities adapted to the work of multidisciplinary teams created the physical infrastructure for meetings, group work and community activities, and in general helped in the implementation of the policies. An electronic clinical records system, supported by appropriate IT systems, helped not only in the clinical case management, but also contributed to strengthen the integration with the secondary care facilities.

As many European health systems, Spain is facing increasing financial pressure and changing demands of the population (Legido-Quigley et al., 2013). Current challenges include integrated and co-payment long term care, resulting for some population categories in catastrophic health expenditure.

It is also being reported that GPs consider burnout, increased co-payments for patients and the exclusion of migrants from health care as major problems. They expressed their concern that moving from a universal model to an employment-based model could be detrimental for health and well-being of the Spanish population (EC, 2019; Heras-Mosteiro et al., 2016).

Estonia

Introduction

Estonia is a small country on the Baltic Sea in Northern Europe with a population of 1.3 million people living in an area of 45.000 km². The Republic of Estonia became independent from the ex-Soviet Union in 1991. It is currently divided in 15 counties and is part of the European Union.

Country profile

Estonia is a high-income country, with a GDP of 31,387 billion USD (current \$) in 2019 and a GDP/capita of 38,811 (World Bank 2020). It ranks on the 30th place in the Human Development Index and has a GINI index of 30. In the late 1990s, Estonia introduced several reforms after the collapse of the Soviet Union. Besides the market-based economic reforms, there were important reforms in the social and health sectors. From 66,4 years in 1994, life expectancy increased to 77,8 years in 2016.

Similar to other Eastern European countries, Estonia experienced a worsening of health outcomes in the early half of the 1990s, with the transition to a market economy (Kringos et al., 2015). In the period 1995–2007, the GDP per capita increased more than three times (from 6.278 USD in 1995 to 20.350 USD in 2007) (OECD, 2009). Since the mid-1990s, the positive changes in the Estonian economy led to the creation of jobs and increases in wages and pensions. Unemployment rates and the percentage of people living below the poverty line decreased. However, in the wake of the global financial crisis in 2008, the Estonian labour market changed remarkably, and unemployment almost doubled in six months. In 2009, the unemployment rate was 13,8%. Catastrophic health expenditure increased, and especially poor elderly who require multiple medicines were at risk. Partially to blame are public health spending cuts introduced to address the 2008 financial crisis. (Polluste et al., 2019). Today, the main challenge regarding Estonia's future health financing system is similar to other European countries: an ageing population (Kringos et al., 2015).

Health service organisation

The health system reforms which were introduced from 1999 onwards moved the Soviet-era social medicine system (centrally funded and managed) to a health system centred on family medicine and funded through a compulsory social insurance system. In the process, the reliance on hospitals was reduced, universal access to family medicine was promoted and an essential drug list was instituted, along with a decentralisation of the public health system.

Mimicking the administrative structure of the country, the health system has only two levels: the central state and the municipal level. Since 2008, local municipalities have the right to establish or (partly) own family practices, which was hoped to counter the shortage of family doctors by attracting more local funding. Yet, this right has not been widely used (HIT, 2018). Municipalities have currently a relatively small role in the financing of health care.

The Ministry of Social Affairs is responsible for covering the costs of ambulant care and emergency care for uninsured people and is also the largest contributor to public health programmes. Three subordinate health agencies operate under the Ministry of Social Affairs: the Health Board, the State Agency for Medicines and the National Institute for Health Development, although each agency is directly responsible only to the Minister of Health and Labour. Also the Centre of Health and Welfare Information Systems operates under the Ministry of Social Affairs aggregating the e-functions of health, labour and social policy areas (Habicht et al., 2018).

The Health Board is assigned three broad functions: health care, health protection and enforcement.

- Health care: the Health Board functions include licensing health care providers and registering health professionals, organizing primary health care, ambulance services and occupational health care, ensuring the safety of medical devices, health sector preparedness for emergencies and managing poison information.
- Health protection: this covers communicable disease surveillance, national and local epidemiological services, implementation of the national immunization scheme, chemical safety and environmental protection.
- Enforcement: This includes ensuring compliance with the health protection legislation and surveillance of health care quality.

The Estonia Health Insurance Fund (EHIF) is an independent public body that is responsible for pooling the earmarked payroll tax (see below) and it is the single purchaser of care. It balances regional disparities in income. It contracts service providers, reimburses health services and pharmaceuticals plus coverage for sick leave and maternity benefits (Habicht et al., 2018).

Four categories of health care have been defined in Estonia: primary care, which is provided by family doctors, nursing care, emergency medical care and specialized secondary and tertiary medical care.

Health care financing

At 5% of GDP, Estonia's health expenditure is one of the lowest in Europe. The Estonian health care system is mainly publicly financed. The largest share (65%) is funded through social health insurance contributions in the form of an earmarked social payroll tax. Other public sources of health care financing include the state and municipal budgets, accounting for 10,7% of total health care expenditure in 2016. Private expenditure makes up about quarter of all health expenditure, mostly in the form of co-payments (statutory cost sharing) for EHIF benefits, direct payments to noncontracted providers or for services and products not part of the insurance package (Habicht et al., 2018).

In 2006, expenditure on outpatient care (including primary care and specialized outpatient care) was 22.6% of total expenditure on health (Pölluste and Lember, 2015). Of the EHIF's total budget for health services, the budget for primary care is about 13%.

As of January 2009, altogether 1.28 million insured persons, or 95,6% of all Estonian residents (1,34 million) were registered by the EHIF. All insured persons are fully covered for primary care costs (except the costs of medicines prescribed by GPs; there is a contribution by patients, depending on the diagnosis) (Saltman et al., 2006). For a more detailed overview of the governance of the Estonian Health Insurance Fund, we refer to (Jesse, 2008).

Primary health care delivery

The reorganization of the primary care system started in the early 1990s together with the introduction of the decentralization policy. One of the purposes of the PHC reform was to introduce and strengthen family medicine as the cornerstone of health service delivery and to change the remuneration of primary health care doctors. General practice was recognised as a speciality and GPs became independent contractors. The responsibility of health care planning remained at the central level (after experimenting with devolution, including decentralization of the Estonian Health Insurance Fund) (Habicht et al., 2018).

In 1997, the goals of the primary care reform and the basic tasks of the reform were formulated as follows: (1) to create a list system so that the population could register with a primary care doctor; (2) to introduce a partial gatekeeping system; (3) to introduce a combined payment system for GPs; and (4) to give the GPs the status of independent contractors (Lember, 2002).

By the early 2000s, when the reforms were completed, the Ministry of Social Affairs started drafting the new Primary Care Development Plan, together with representatives of stakeholders and academic organizations. This plan was approved by government in 2009. The core of this Plan is the understanding that primary care is to provide to all people the first contact with the health care system.

- The primary care doctor is responsible for provision of necessary health services to his/her patients and for the continuity of care.
- Most of the services needed will be provided in primary care, including health promotion and disease prevention. If necessary, the patient will be referred to specialist care (including nursing care).
- The most frequently required primary care services provided by the primary care team and other specialists of the primary care network will be accessible for all people near their home or workplace.

In 2012, a recentralization of primary health care administrative functions took place. Since the start of 2013, the administrative functions related to primary health care (assigning patient lists, temporary substitution of family physicians, supervision) have been transferred from county governors to the Health Board. Also, the collection of health statistics, accounting and HR management were re-centralized.

The National Health Plan is the main health policy document; in 2014, the strategic paper *Health Care Development Directions until 2020*, which complements the NHP, was adopted, with one PHC sub-objective: strengthening patient-centred care by investing in primary health care centres and thereby motivating single GP practices to merge and offer a wider range of services (Habicht et al., 2018).

PHC providers

In Estonia, PHC is being provided by general practitioners (physicians), nurses and midwives. As a result of the reforms, all health service providers have been legally mandated to operate under private law, even though in most cases institutions continue to be publicly owned by the state or municipalities. Most FDs are self-employed contractors to the EHIF, less than tenth of FDs are salaried employees of private companies owned by FDs or local municipalities. Salaried FDs are mostly paid a flat salary. The geographical distribution of practices per county is planned according to population numbers.

In 2015, the total number of family medicine practices was 467 of which 26% were group practices and 74% solo practices. About 5% of GPs are salaried by other physicians and are paid a flat salary. The practice list is expected not to exceed 2.000 persons or be less than 1.200 persons. In mid-2017, the average practice list contained approximately 1.673 individuals and 14% of all lists had more than 2.000 enrolees. Once the 2.000 persons limit is reached, an assistant doctor has to be hired to provide services to all enrolees on the practice list (Habicht et al., 2018).

A shift in responsibility from family doctors to nurses has taken place, for example, in managing chronically ill patients, pregnant women and healthy neonates. Consequently, the demand for qualified family nurses has increased. Since 2013 there has been a strong financial incentive to have a second nurse per patient list. By end of 2016, there were 360 patient lists with a second nurse.

Providers are contracted to provide services. These contracts include agreements on service quality and access and more specifically the conditions for access to care, quality of care, reimbursement conditions, reporting requirements and the liabilities of the parties in case of a violation of the conditions. The provider is obliged to ensure access to services for the whole contracting period. For primary care, waiting times are set by a Decree (Habicht et al., 2018). The Health Insurance Act determines the basic content of the contracts, and the EHIF's supervisory board endorses the basic

principles for contracting. The EHIF negotiates the standard contract conditions with provider associations such as the Estonian Family Physicians Association. This ensures that the contract terms are universal and apply to all providers. In addition to the standard contract conditions, there are financial appendices that are agreed by each provider individually for one year.

To practise in primary care, physicians should have completed postgraduate specialization in the field of family medicine and, like all medical staff (physicians, nurses, midwives), they have to be registered with the National Health Board. The requirements for facilities and equipment for primary care practices are approved by the Minister of Social Affairs. There are requirements for rooms (list of required rooms, required area of rooms, requirements for physical environment, etc.) and for equipment (list of required medical and other equipment). A voluntary certification system for GPs has been introduced as well. A voluntary peer-review mechanism for primary care practices has been introduced by the Estonian Association of Family Doctors. There are also a number of clinical guidelines for GPs and nurses. The clinical guidelines are produced by GPs and family nurses, as well as by other medical specialists, and financed by the EHIF.

PHC services

The scope of services and functions of each category of primary health care personnel is specified by the regulations of the Ministry of Social Affairs. The EHIF is responsible for defining the benefits package, in collaboration with other stakeholders. The benefits include in-kind benefits (73%) and cash benefits (26% of EHIF expenditure in 2015).

- In-kind benefits: include preventive and curative services, pharmaceuticals, medical devices. These benefits cover a wide range of health care services, excluding cosmetic surgery, alternative therapies and optician services. the in-kind benefit package means that users do not pay any charge in primary care.
- Cash benefits include a compensation for temporary incapacity for work, maternity benefits, an adoption allowance, and an allowance of care for sick or disabled children. The dental care cash benefits have been subject to frequent change over the years and are now available only for targeted groups.

In practice, the EHIF makes a proposal on the benefits package, after which the government makes the final decision by endorsing the list of services and by giving each item a reimbursement price. The EHIF conducts an extensive evaluation process for including, or excluding, any services to, or from, the benefits package. The 2002 Health Insurance Act sets out four criteria for changing the benefits package: (1) medical efficacy, (2) cost-effectiveness, (3) appropriateness and compliance with national health policy, and (4) the availability of financial resources.

Regulations specify in detail which services and investigations should be provided by the family physician within the scope of their contract with the EHIF. The scope of services provided by family doctors has been increasing over time and has been encouraged by financial incentives. The responsibilities of nurses and other mid-level health professionals have been also expanded in recent years. In 2014, the previously used term “long-term care” was replaced by “nursing care” and all related regulation was revised to set clear nursing care standards and to increase the scope of care nurses can provide independently in inpatient as well as in outpatient settings. Additionally, in 2016, after several years of stakeholder discussions, family nurses received the right to prescribe a limited number of medicines, mainly for chronic conditions. These changes were accompanied by revisions of nursing care payment and contracting conditions (Habicht et al., 2018).

Visits to a GP are free, but there is a fee for GPs’ home visits. Patients also pay a fee for each visit to a specialist, except for children up to 2 years and pregnant women from the twelfth week of pregnancy. There is also co-payment for the costs of medicines prescribed by GPs or by specialists. In 2007, 6% of patients rated general practice care as not affordable, but 89% found it is easy to reach and gain access to GPs (European Commission, 2007).

Patients are free to choose the GP they want to register with, but this choice is limited in rural areas where the population density is low and there may be only one GP for the region. However, satisfaction with GPs is high, as more than 90% of the patients are satisfied with their GP and explanations given by GPs, and patients also reported to trust their GPs.

The contracts specify the working modalities. Family doctors must have at least 20 hours of visit time and one evening clinic per week. GP practices must provide services for a minimum of eight hours per working day. Patients with acute conditions must be able to have an appointment on the same day and patients with chronic diseases must be able to see the physician within three days.

Patient information is managed through a unique national record that documents medical history, test results, diagnostic imaging, and prescription history. This links all service providers, patients, and the Estonian Health Insurance Fund across the country.

In Estonia, secondary and tertiary care is provided in hospitals, which include about 65 public and private hospitals in Estonia, including 35 nursing and rehabilitation hospitals. The EHIF has contracts with the 19 public hospitals that are included in the Hospital Network Development Plan (HNDP). HNDP hospitals are divided into regional, central, general, and local hospitals. Regional hospitals deliver the full range of services, central hospitals deliver most services with the exception of a few procedures, general hospitals provide 24/7 emergency care, intensive care and some surgical and medical specialties, while local hospitals deliver 24/7 emergency and some general surgery procedures. The EHIF also has contracts with other non-HNDP hospitals, including hospitals specialized in nursing or rehabilitation care.

Purchasing PHC

As mentioned above, the result of the Health Services Organization Act and the Health Insurance Act in 2001 and 2002, respectively, the Estonian Health Insurance Fund (EHIF) obtained its present status as a public independent legal body, after merging the Central Sickness Fund and the 17 regional sickness funds. The EHIF is the main purchasing agency and its responsibilities include contracting with health care providers, paying for health services, reimbursing pharmaceutical expenditure and paying for temporary sick leave and maternity benefits. The EHIF currently covers approximately 95% of the population (EHIF, 2019).

The EHIF is governed by a 15-member supervisory board consisting of representatives from state, employer, and insured individuals' organizations. To ensure consistency between the Ministry of Social Affairs and the EHIF, as well as political accountability, the supervisory board is chaired by the Minister of Health and Labour.

The EHIF covers about 94% of the population. The system is based on employment contributions (social payroll tax). However, non-employed are more than half of the insured and the EHIF has been in deficit since 2013. This resulted in the state injection of a contribution on behalf of the retired citizens. EHIF is being reformed to cover for the whole population. Its financial sustainability has been a long-term cause for concern, ultimately leading to a decision to broaden the public revenue base (Habicht et al., 2018).

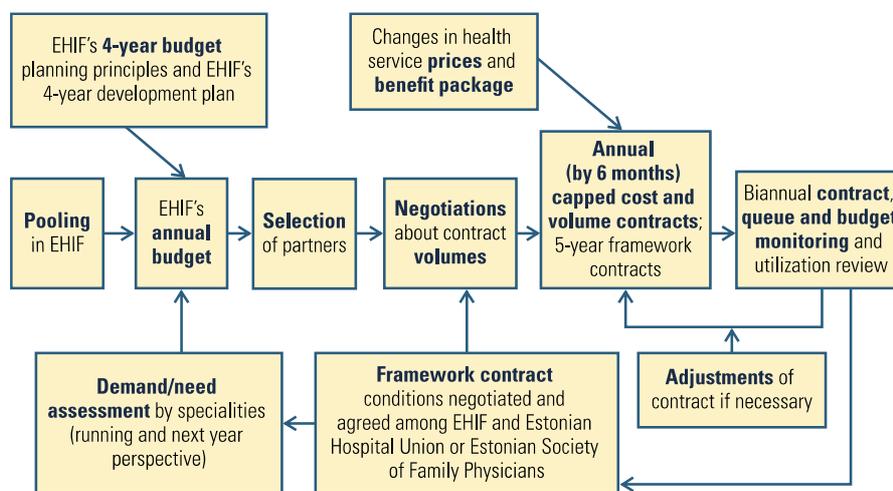
The Ministry of Social Affairs funds emergency care for the uninsured, as well as ambulance services and public health programs. Both the Ministry of Social Affairs and local governments finance social care.

The EHIF has three reserves to ensure solvency (Figure 5).

- The cash reserve (liquidity portfolio) ensures daily cash flows are managed smoothly. Administered by the State Treasury, it consists of instruments such as local deposits and commercial paper.

- The second reserve, the mandatory reserve, decreases risk from macroeconomic changes. Set at 5.4% of the EHIF's yearly budget, the mandatory reserve is created by transferring at least 2% of the budget to the reserve every year since the EHIF's inception. The Minister of Finance ensures the preservation, liquidity and returns of the funds.
- The third reserve, the risk reserve, minimizes risks arising from health insurance obligations. Set at 2% of the EHIF health care budget, the risk reserve can be used upon the decision of the supervisory board. In addition to these reserves, the EHIF retains earnings if annual revenues are higher than expenditures. However, as stated above, the EHIF has a yearly deficit since 2013 (EHIF, 2013).

Figure 5 - The budgeting and contracting processes of EHIF (Source: Habicht et al., 2018)



Payment modalities

Most general practitioners are independent contractors with the EHIF and are paid via a combination of different modalities (EHIF, 2010). The current payment system includes four components:

1. *Capitation fee*: this is an amount paid in advance according to the list of patients. On average, two thirds of the budget for family physicians comes from capitation. There are five capitation payment groups: under the age of 3 years, aged 3-7 years, 7-50 years, 50-70 years and over 70 years old.
2. *Fee-for-service payment*: this includes the investigation fund, which is used for investigations requested by the GP from a laboratory or a medical institution (e.g. gastroscopy). The therapeutic fund and the activity fund cover physiotherapy, speech therapy, etc. and minor surgical procedures respectively. These fees are transferred to the family doctor once a month upon receiving bills for services rendered and contributes on average to 20,3% of the income in 2011 compared with 14,5% in 2005.
3. *Basic practice payment*: covers the costs of equipment, information technology, transportation (home visits), and continuous medical education courses for the doctor and the practice nurse. This covers on average 11% of a GP practice income.
4. *Quality bonus system*: Initially, bonuses were granted on completing postgraduate specialist training, and when long (20±40 km and more than 40 km) distances from the centre where

specialist consultations are available have to be covered. In 2006, the quality bonus system (QBS) was introduced aiming at increasing the quality and effectiveness of preventive services, and the monitoring of chronic diseases. Family physicians can receive separate additional fee-for-service payments up to a maximum of 41% of their total capitation payment if they perform well according to the quality bonus system standards. The quality bonus scheme, which comprises 45 indicators, includes three domains: disease prevention, chronic disease management and additional activities. Family physicians are eligible for bonus payments if they achieve at least 80 percent of possible points. Practices also receive a basic monthly allowance to cover the costs of facilities and transport for doctors or nurses. Additional payments are made to compensate family physicians in remote areas. Starting from 2014, family physicians may also receive an allowance for overtime work, and nurses for appointments outside of working hours.

The average size of the family doctors list is about 1.600 persons, but the average income of practice varies widely according to the structure of the people in the list and the different allowances the family doctors can apply for (Habicht et al., 2018). Furthermore, a family doctor's income depends not only on practice list size but also on performance, so that any money spent on unnecessary analyses and procedures will reduce payments.

In 2016, a GP's practice monthly income was on average 10.700 euro (HIT, 2018), which was lower than the income of specialists, but much higher than that of nursing staff, midwives, physiotherapists and other therapists (Kringos et al., 2015).

Furthermore, in 2017 a new basic allowance has been introduced for primary health care centres that should motivate individual primary health care providers to form groups and provide a wider scope of services. The primary health care centre basic allowance includes additional funds for management, information technology (IT) developments and more spacious rooms. The primary health care centres are eligible for this allowance when at least three family doctors with at least 4 500 individuals on their list work together in one location; they also provide physiotherapy and midwife services (providing home nursing will be compulsory starting from mid-2018) and have extended opening hours (from the compulsory 8 hours to 10 hours per day) (Habicht et al., 2018).

Monitoring PHC performance

The HIT report 2018 states that there are in Estonia currently no strategies in place to define the policy priorities, targets and reforms, despite documented growing inequalities in health outcomes and a gap of 6% of the population that was without coverage in 2015. Yet, access to PHC has improved over the years, even among the poorest income quintile of the population.

The adoption of the Law of Obligations Act in 2001 established a new relationship between patients and providers based on legally binding contractual agreements (Habicht et al., 2018). Patient satisfaction at a national level is expressed by annual health care (including primary care) satisfaction surveys. Community influence can also be seen incidentally at local level as municipalities may act as owners of primary care facilities. Patients' rights are mainly covered by the Law of Obligations Act (2001): informed consent, patient access to own medical files, confidential use of medical records, and availability of a procedure to process patient complaints. (Kringos et al., 2015) While some authors stress the satisfaction of patients with PHC reform, others point to a continuing tendency of (older) patients to wish to be referred to specialist care (and hospitals, as in communist times) due to a lack of trust in PHC (Dan and Savi, 2015).

Discussion

Estonia's case may be relevant important for India because the Estonian Health Insurance Fund (EHIF) functions in a similar fashion as the Indian National Health Authority (NHA) in terms of purchasing healthcare services. However, EHIF has a broader mandate, which also includes purchasing PHC services through the family physician system. The processes of purchasing implemented in EHIF for the family physician system may be adapted to the Indian system. They could inform the mechanisms of purchasing PHC from the Health and Wellness centre clusters operated by the MoHFW or for contracting the private sector physicians operating as a single practitioner or in group practice/nursing homes. Both in Estonia and India, private sector doctors are self-employed or independent contractors. The list system concept used in Estonia mimics the insured provider (IP concept) under the employee state insurance scheme ESIS in India.

Estonia is a very small country, smaller in population than many Indian cities. The size matters in terms of regulation and governance capacity. Strong leadership provided by the Ministry of Social Affairs (MoSA), the Estonian Health Insurance Fund (EHIF), and family doctors is considered to have been critical to the success of primary health care reforms. Most PHC reforms involved negotiations between the key state agencies and PHC providers.

Turkey

Introduction

With a GDP of 717 billion USD in 2020, Turkey is the 19th world economic power. The development of the Turkish economy has been very dynamic over the past two decades, with an average annual GDP growth of 5% since 2002. This growth was abruptly interrupted in 2019, owing to the COVID-19 pandemic, but the country was able to demonstrate resilience and record a GDP growth rate of 1,8% in 2020, despite many adverse predictions. It is in that particular economic context that the country was able in a relatively short time, to put in place a successful and performing health system. A thorough understanding of the current state of affairs within the Turkish health sector requires that one delve into the history spanning the last two decades.

Prior to 2002, The Turkish health care system was considered to be insufficiently responsive to the dire needs of its population. It was marred by inefficiencies and public dissatisfaction, resulting in unequal access to healthcare among different population groups and stagnating health outcomes (Kringos et al., 2011; Tatar et al., 2011; Ökem and Çakar, 2015). In response to this situation, the government, aided by the World Bank, launched in 2003 the Health Transformation Program (HTP), which entailed sweeping reforms in the country's health sector, aiming at universal coverage (Baris et al., 2011). This programme went on for ten years, contributing to much-improved health outcomes, broader and more robust financial protection, increased user satisfaction, and enhanced overall equity. By 2013, near-universal health coverage was achieved for all residents of the country. In 2013, healthcare access for the population was 98%. Infant mortality rates were halved, from 26 to 12 per 1.000 births, and life expectancy grew to 74 years. The utilization of PHC per capita grew more than two-fold during the HTP implementation period (from 3,1 visits per year in 2002 to 8, 2 visits in 2013) (Atun et al., 2013).

Country profile⁴

Turkey is a middle-income developing country, which has been officially accepted as a candidate for EU Membership since 1999. Its current total population is estimated at 84.339.067 inhabitants living on a land area of 785.350 km². Straddling Europe and Asia, Turkey borders several countries and has coasts on two seas. Its capital city is Ankara.

Following a referendum in 2017, Turkey's constitution underwent a major overhaul that changed its political landscape. Decades of a parliamentary regime came to an end when the country was transformed into a presidential republic, whereby the president occupies simultaneously the functions of head of state and head of government. The reforms dissolved the position of Prime Minister. This political system is based on a clear separation of powers. The president appoints the Council of Ministers, which exercises the executive power, whereas the legislature is vested in the Grand National Assembly. The judiciary acts independently from the two other powers, but in practice this is not totally the case, owing to the fact that the president appoints judges to serve in the supreme courts.

Administratively, Turkey is divided into 81 provinces headed by provincial governors appointed by the central government. The state is highly centralized, although there have been attempts to adopt a more decentralized system of public management (Tatar et al., 2003).

The office of the provincial governor coordinates all ministerial functions within a province. Provinces are divided into districts, 973 in total, and villages according to their population and geographical location. District administrators are also appointed by the central government but

⁴ Demographic, socioeconomic and health indicators have been taken from the World Bank Development indicators databank (<https://data.worldbank.org/indicator/>) and/or the CIA world factbook (<https://www.cia.gov/the-world-factbook/countries/ghana/>), unless otherwise specified

report to the provincial governor of the geographical area in which they operate. Each district has a municipality, and city mayors and council members, together with provincial council members and heads of village, are voted in through local elections. Municipalities are in charge of a variety of tasks ranging from the environment, sanitation to health care. They have been given the ability to levy their own revenues from economic activities and to collect certain taxes. However, there subsists a heavy reliance of a great number of municipalities on funds from the central government. This has a certain impact on their relative level of independence.

Huge disparities exist between regions, hence a Gini index of 41,95 in 2019. Most people in Turkey are city-dwellers. In 2019, 64% of the population resided in urban areas, with an annual urbanization rate that has dropped in recent years, going from 6,2% in 1982 to 1,7 in 2020. Women currently represent 50,6% of the total population, while indicators, such as contraceptive prevalence and skilled attendance at birth, were reported respectively at 73,5% (2014) and 98% (2018).

As of 31 December 2019, Turkey's total population is 84.339.067 of which 24,3% are between 0-14, 67% are between 15-64 and 8,9% are older than 65 years old. Life expectancy at birth was 78 years in 2019. The country's maternal mortality ratio has decreased from 23 to 17 deaths per 100,000 live births between the years 2010 to 2020. According to World Bank data from 2019, under-five mortality and infant mortality rates per 1000 live births are 8,0 and 6,8.

Non-communicable diseases (NCD) accounted for approximately 90% of all deaths⁶ in Turkey in 2019. The probability of a person residing in Turkey dying from a major NCD, before the age of 70 years, was estimated at 16,8% in 2015. Mortality reported from coronary heart disease (CHD) in Turkish women is the highest in Europe (10,8% in 2019). Despite public health programmes operating in Turkey, risk factors for non-communicable diseases (NCD) are at a relatively high level (WHO, 2018⁷). Hypertension is prevalent in at least one-third of the adult Turkish population. According to the WHO, about 42% of men are tobacco smokers. One in 5 adults is obese (BMI of over 30), under a quarter of adults have hypertension (TurkStat, 2019).

The 'Multisectoral action plan of Turkey for non-communicable diseases 2017–2025' is being implemented by the Turkish Ministry of Health in order to mitigate and manage the NCDs in the country. According to a 2014 WHO publication⁸, the probability of dying between ages 30 and 70 years from the 4 main NCDs is 18%, with 47% of all deaths occurring from cardiovascular diseases, such as myocardial infarction and strokes. Cancers are responsible for 22% of all deaths. Communicable diseases and injuries account respectively for approximately 6% and 4% of Turkey's mortality in 2016.

Health service organization

Under the Health Transformation Programme (HTP), the family practitioner scheme was introduced, one of the main initiatives in the current Turkish primary health care delivery system. By the end of 2010, the family practitioner scheme had been extended to the entire country. Secondary and tertiary care services are predominantly provided by hospitals falling under the responsibility of the Ministry of Health (MOH). In 2010, the MOH had ownership of 58,6% of hospitals and 59,9% of hospital beds. The MOH is responsible for general hospitals (secondary care), as well as teaching hospitals (tertiary care). Teaching hospitals provide specialist training in all medical branches.

⁵ World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. For more information (iresearch.worldbank.org/PovcalNet/index.htm).

⁶ Based on the data from Global Health Estimates 2020: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2019. Geneva, World Health Organization; 2020. Link: who.int/data/gho/data/themes/mortality-and-global-health-estimates/ghe-leading-causes-of-death

⁷ Prevention and Control of communicable diseases in Turkey-The case for investment. 2018. WHO Europe regional office. Link: https://www.euro.who.int/data/assets/pdf_file/0009/387162/bizzcase-tur-eng.pdf

⁸ <https://www.euro.who.int/en/countries/turkey/data-and-statistics/ncd-country-profile-2014-turkey>

Universities owned 4.3% of hospitals and 17.5% of hospital beds in 2010. These are highly specialized facilities that not only provide diagnostic and curative services but also conduct complex medical research. However, even tertiary-level hospitals are used by patients as first points of contact with the healthcare system, due to a lack of appropriate gate-keeping (Tatar et al., 2003).

Until the initiation of the Health Transformation Programme in 2003, the share of the private sector was quite limited, comprising only 7,8 % of total hospital beds in 2004, and the number of private clinics and offices providing outpatient services was progressively increasing (Tatar et al., 2003). Professional associations and unions participated in central planning initiatives in a limited consultative capacity, but they were given very little responsibility in regulation. Social Health Insurance served merely as a financing instrument (Wendt et al., 2013).

Currently, in the Turkish health system, the state occupies the centre stage when it comes to regulation, financing, and healthcare delivery. The Ministry of Health (MOH) assumes day-to-day operating authority, with the oversight of a highly centralized control apparatus. Provincial health directorates serve as the coordinating agencies, implementing MOH policies and guidelines in cities and rural areas. Professional associations representing physicians, dentists, and nurses or unions for other health workers (e.g. lab technicians, social workers, etc.), have very little or no role at all in the area of policymaking. At times they may take part in a relatively consultative capacity (Yilmaz, 2013). Thus, physicians have a limited role in decision-making with regard to the suitability of the economic efficiency of medical services and diagnostic tools that would be included in the publicly provided benefits package (Wendt et al., 2013; Argatan and Kuhlmann, 2019). In terms of remuneration, as salaried civil servants, they had no mechanism to negotiate their salaries or the fee schedules. Yet, before the recent reforms, they were allowed to work privately after regular office hours and supplement their incomes (Erus and Aktakke, 2012). This was changed when by law, health professionals working in the public sector were given a full-time schedule, as civil servants. Those working in hospitals may, however, operate private clinics, but only during after-hours. This has been an area of contention⁹ and ongoing tension between reformers and professional associations.

Introduced in 2003, the Health Transformation Programme (HTP) succeeded in harmonizing some components of the earlier reform initiatives into a consistent proposal and proceeded to thoroughly implement them. In addition to creating a single-payer system by bundling all social insurance funds under the Social Security Institution, the reforms of 2003 expanded the insurance coverage and introduced a purchaser-provider split by transferring all public hospitals to the MOH. These hospitals now enjoy some level of autonomy, with a more prominent role for professional managers, more suited to the task of running them. For primary health care delivery, the HTP established a system of family physicians.

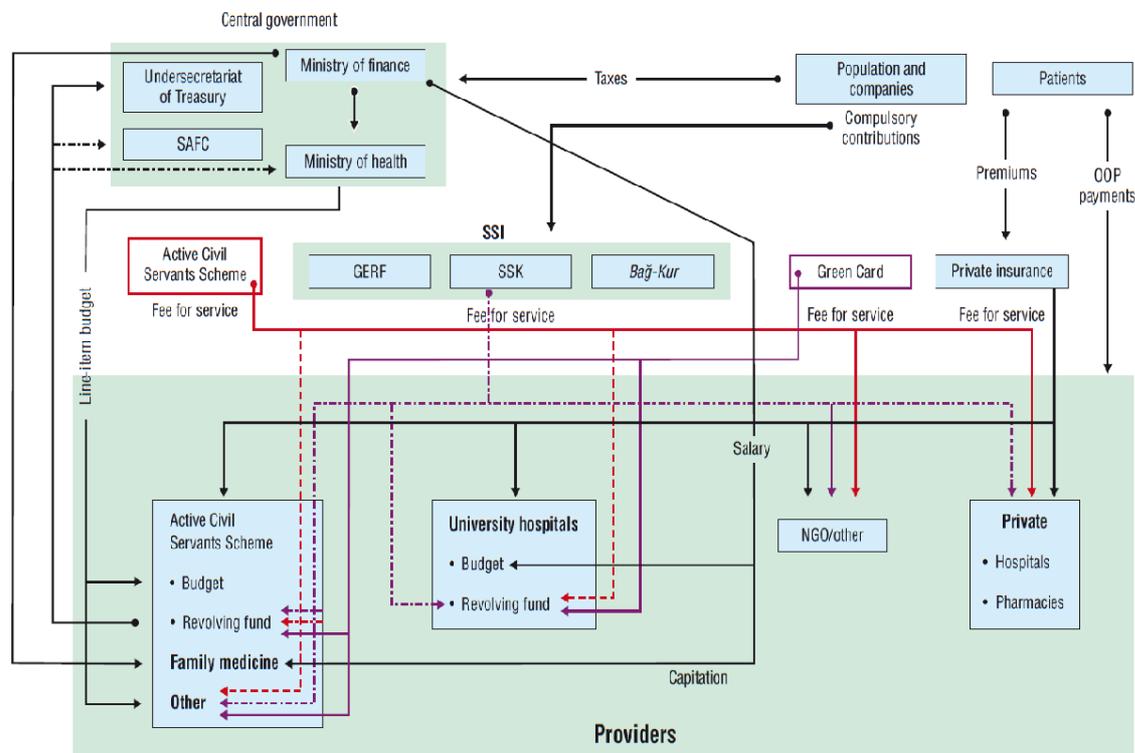
Other more operational responsibilities, such as those pertaining to public health, health service delivery, or technology assessment, are delegated to autonomous quasi-public agencies (Atun et al., 2013). Novel mechanisms were established to enable *“service-users and citizens to directly express their views on the quality, responsiveness, and availability of health services, including the challenges encountered, their degree of satisfaction, and their expectations”* (Atun et al., 2013).

Many actions of the HTP were meant to improve performance and promote more efficient management of health care organizations. Some of these actions, such as granting autonomy to public hospitals, introducing a purchaser-provider split, reconfiguring the MOH as a planning agency, or establishing autonomous agencies (eg. SSI), helped diffuse the centralized grip of the government), by creating new governance mechanisms. With some degree of institutional autonomy, new monitoring instruments, electronic health records, ways of calculating performance-based payments, and even user feedback and complaint mechanisms, the combination of

⁹ Dual employment and under-the-table payments to physicians, were deemed ‘corrupt practices’ and predation by the reformers, hence the ‘historic’ full-time work legislation.

interventions had the potential to improve accountability and transparency in the health care system (Wendt et al., 2013). Figure 6 provides an overview of the complex health system in Turkey.

Figure 6 - Overview of the Turkish Health System (Governance, service delivery & financing structures)
(Source: Tatar et al., 2011)



Solid lines represent managerial links; dotted lines financial relations.

Health care financing

Health expenditures amounted to 165.2 billion Turkish liras in 2018 (TurkStat). This figure as a percentage of the GDP was 4,4 %. Government expenditure was 77,5% of the Total Health Expenditure (THE). Out-of-pocket spending by households for curative services, pharmaceuticals, etc., represented 17,3% of the total health expenditure, an increase from the lowest recorded figure of 14,5% in 2009.

Turkey has recently undergone a major restructuring of its social health insurance framework.¹⁰ In 2008, three of the five main social security funds, which also cover social health insurance, were transferred to the newly created Social Security Institution (SSI). This was followed by the transfer of the Active Civil Servants Scheme in 2010, whereas the Green Card scheme for the poor effectively was transferred in 2012. The benefits packages of the four transferred schemes were harmonized during the process leading to their effective transfer to the SSI.

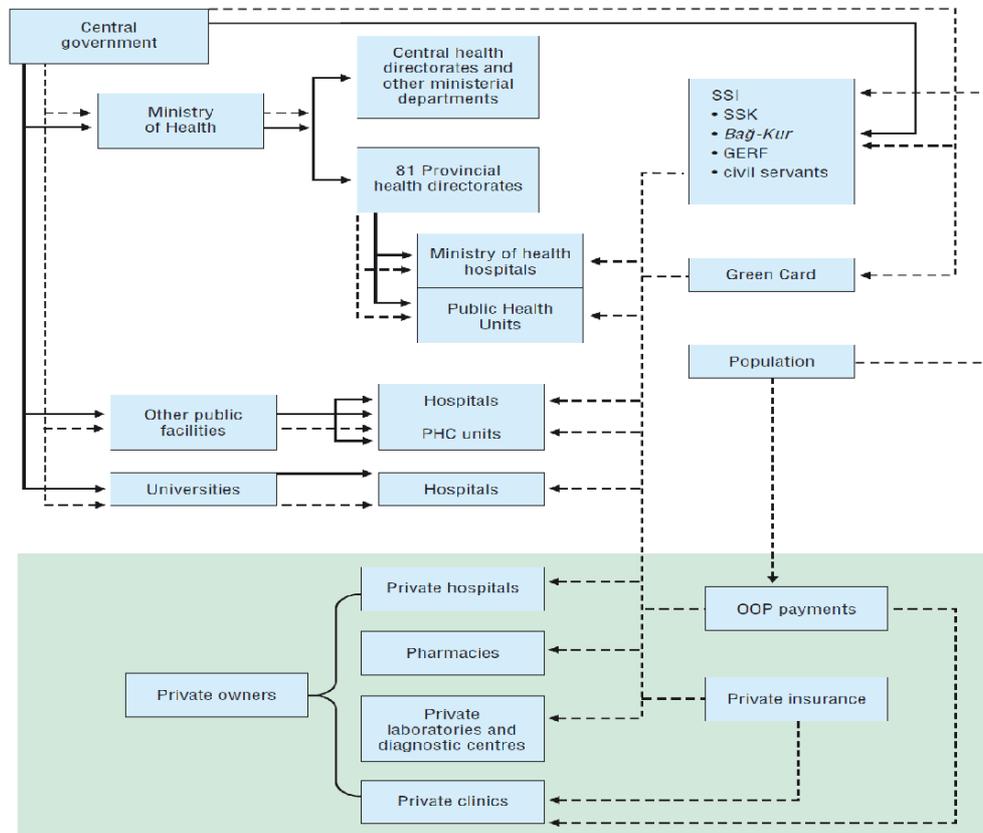
The introduction of the Health Transformation Programme, which lasted ten years (from 2003 to 2013) coincided with a period of sustained economic growth, immediately following a dire national crisis (2000-2002). This allowed the government to increase health expenditures at an average yearly rate of 9,1%. Public-sector funding increased from 63,0% of total health expenditures in 2000 to 75,2% in 2010, the highest in the E7¹¹ group of countries with emerging economies (including

¹⁰ Social insurance funds in Turkey are mixed funds for pensions, health and welfare. There are no stand-alone health insurance funds, but only health branches of the social insurance organizations.

¹¹ Short for "Emerging 7". These are seven countries China, India, Brazil, Mexico, Russia, Indonesia and Turkey, grouped together because of their strong emerging economies. The term was coined by economists at PriceWaterhouseCoopers in 2006.

Brazil (47,0%) and China (53,6%), while health expenditures rose from 4,1% of the gross domestic product in 2002 to 6,1% in 2010 (World Bank, 2012). Figure 7 is a representation of the way funds flow within the Turkish health system. It was published a year before the Green Card scheme was incorporated into the SSI.

Figure 7 - Financial flows in the Turkish Health system (Source: Tatar et al., 2011)



Turkey's General Health Insurance model

Before 2003, there were several insurance schemes and other financial protection mechanisms, each with varying benefits packages both in terms of depth and breadth of coverage. The poor population was covered by the government-financed Green Card scheme, the limited benefits of which were later expanded to cover ambulatory care in addition to hospital-based services. Theoretically, most of the Turkish population should be covered by different insurance schemes, but nearly one-third of the population remained uncovered (Tatar et al., 2011). The unprotected people were usually non-employed in the formal economy and therefore made no contributions to social security. As a consequence, their dependents also did not enjoy health insurance coverage. This resulted in a high level of out-of-pocket and informal payments to health care providers.

Between 2008 and 2012, these various insurance schemes were transferred to the newly established Social Security Institution and merged to establish general health insurance (GHI) with a unified risk pool and a harmonized benefits package covering preventive health care and family medicine services, provided free at the point of delivery (Box 1). Targeted health promotion and prevention programs are also included in the menu. The desired purpose of the GHI is to drastically reduce the fragmentation that prevailed in the health financing system and mitigate its many inefficiencies within the national health care landscape. The GHI scheme merges all pre-existing insurance schemes (including that of the Green Card) under one umbrella. It became and is still the single insurer responsible for purchasing services from various competing public and private health

providers. The premiums for the poor (people below the poverty line) are paid by the government. All covered individuals are now free to obtain services from family practitioners and hospitals (Tatar et al., 2011).

Box 1 - The various health insurance funds transferred to the SSI between 2005 and 2012

| |
|---|
| <p>1. Social Insurance Organization (also known as SSK) The Social Insurance Organization (SIO) had the largest population share (46.9% in 2008) and covered private sector employees and blue collar public sector workers. It covered industrial accidents, occupational diseases, illness, births, disabilities, old age, injuries and deaths. All the facilities operated by the SIO were transferred to the Ministry of Health in 2005. The SIO itself was transferred to SSI in 2008 along with its central and rural organizations, staff, property and assets.</p> <p>2. Bağ-Kur Bağ-Kur was established as a social security scheme for self-employed people, artisans and merchants (and their dependents), but the scheme was later extended to cover the unemployed, housewives, the elderly, foreign residents in Turkey and unemployed spouses of Turkish people working abroad. In 2008, it covered 20.7% of the total population. Bağ-Kur did not own any facilities, but purchased health care services from both the public and the private sectors. It was represented in all of the country's 81 provinces.</p> <p>3. Government Employees Retirement Fund (GERF) GERF covered retired government employees and their dependents, providing pension and health care benefits. Coverage for this group is still financed by the contributions of active civil servants (not the retired beneficiaries themselves) and subsidies from the state. In the past, GERF was the most advantaged scheme in terms of coverage and access to health care services.</p> <p>4. Active Civil Servants Scheme This scheme, covering government civil servants who are currently still working, is paid for out of the general budget. Its administration was transferred to the SSI in January 2010.</p> <p>5. Green Card Scheme The Green Card established in 1992, covered those who can certify that their income is lower than one-third of the base wage rate determined by the state. Until 2004, the coverage of this scheme was limited to inpatient care, with outpatient and pharmaceutical expenditure excluded. Since 2004, the scheme has been extended to all expenditure, although a 20% co-payment for pharmaceuticals and other outpatient co-payments still apply.</p> |
|---|

The benefits package is quite comprehensive in Turkey, covering both inpatient and outpatient care. The GHIS reimburses the following services:

- Personal preventive health care including preventive care for addictive substances.
- Inpatient and outpatient services, including medical examinations, diagnostic tests and procedures; all medical interventions and treatments after diagnosis; follow-up and rehabilitative services; organ, tissue and stem cell transplantation; emergency care and medical care given by paramedical staff under supervision of a physician.
- Inpatient and outpatient maternal health care, including medical examinations, diagnostic tests and procedures, delivery, all medical interventions and treatments after diagnosis, follow-up services, abortion, sterilization, emergency care and medical care by paramedical staff under doctor's orders.
- Inpatient and outpatient oral health care, including oral and dental examinations, diagnostic tests and procedures, all medical interventions and treatments after diagnosis, tooth extraction, conservative dental treatment and endodontic treatment, follow-up services, oral prosthesis, emergency services, and orthodontic treatment for children under 18.
- In-vitro fertilization services, reimbursed up to two attempts; to be able to benefit from this service, the insured (both women and men where the woman is a dependent) should have a medical report proving that this is the last resort solution, the woman should be aged between 23 and 39, the failure of other methods in the last three years should be certified, and the insured should be a member of the GHIS for at least five years, with 900 days of paid contributions.
- Blood and blood products, bone marrow, vaccines, medicines, prosthesis, medical goods and medical equipment, including their installation, maintenance, repair and renewal services.
- Treatment abroad under specific circumstances.

There are co-payments for pharmaceuticals (20% of the prescription for active workers and 10% for retirees) and medical devices such as prostheses.

Primary health care delivery

The current Turkish primary health care delivery system is one of the main initiatives that took place under the HTP: the introduction of the family practitioner scheme (Kringos et al., 2011). By the end of 2010, the family practitioner scheme had been extended to the entire country (Tatar et al., 2011). Compulsory gatekeeping, with family health centres as the first level of contact, is one of the ideas being entertained by policymakers, although the insufficient numbers of human resources have not yet allowed this (Espinosa-Gonzalez and Normand, 2019).

In 2005, Turkey as part of its Health Transformation Programme began implementing the family medicine model, as the core basis of its primary healthcare delivery system. The Family Medicine programme was scaled up nationwide in 2010. Primary care services are currently delivered in state-owned family medicine centres (FMC), staffed by a medical team that consists of a physician¹², nurses, midwives, health technicians, and medical secretaries. The principal aim of these centres is to provide service to the whole population, especially in rural areas where access to medical services is lacking (Gunes and Yaman, 2008; Sparkes et al., 2019).

Health centres are planned so that there is one health centre per 5.000-10.000 people. The FMCs provide basic preventive and curative services and refer patients to higher-level health service providers as needed. They operate on a walk-in basis and are located within neighbourhoods in close proximity to the patients. Each family medicine practitioner/unit is assigned a population that is based in a specific location in the provinces. On average, a unit is responsible for about 3.000 patients in the registration list, but a list of between 1.000 and 4.000 is allowed and the contract is signed by the FMC staff with the Social Security Institution of Turkey. Residents within a particular area are encouraged to visit the relevant family medicine centre to facilitate access to services. However, after six months, patients can change their family practitioner. As of December 2018, there were 26.252 FM units, covering a population of 3.098 per active FM unit.¹³

Recently, as a response to the constantly growing burden of NCDs, a new structure, called the 'Healthy Living Center' (HLC), was introduced to strengthen the FM model (Tuzcu and Muslu, 2020). HLCs have a complementary role within the PHC system and support the FM model. They are responsible for conducting patient follow-up activities when referred by FMCs, and for population screening programmes to identify and stratify the population for specific diseases (especially for NCDs).

There are no standard clinical pathways in Turkey to deal with NCDs. While MCH is a part of the performance-based contracts at the primary care level, NCDs are still not linked with such contracts in the preventive care programmes.

The health workforce in Turkey's primary health care system consists of the following (Gunes and Yaman, 2008):

- Specialists in family medicine: Physicians who have completed a 3-year residency program in family medicine after graduating from medical school.
- Medical practitioners who are physicians having completed a basic medical education of 6 years, but with no further specialization. They are the major providers of PHC services, working in FMC and emergency departments.

¹² Most physicians working in PHC in Turkey have no residency training in family medicine and often little clinical training.

¹³ Ministry of Health Public Health General Directorate, Department of Family Medicine.

- Nurses: Graduates of a 4-year high-school level technical school or may have a 2-year college or 4-year university degree. Nurses working in health centres support the medical doctors and work with midwives, and also have a responsibility in health education and promotion.
- Midwives: Graduates of 3-year technical high schools and work mainly for MCH services.
- Health technicians: Male nurses or public health technicians are graduates of technical high schools. They support medical doctors in preventive and public health services.

Purchasing Primary Health Care

The introduction of performance-based contracts for PHC professionals in the public sector was a key feature of the family medicine scheme. Before the payment reform, all PHC professionals received fixed salaries, which were considered low when compared to those earned by specialists. There were no additional financial incentives for practitioners who were willing to provide care in underdeveloped locations and underserved communities. Moreover, before the entry into force of such contracts, PHC professionals were considered mere civil servants. No limitations were imposed regarding the number of years of service until retirement, and there was no formal mechanism put in place to evaluate their individual performance over time.

Performance-based contracts have drastically changed the manner in which PHC providers are compensated for their work. They have brought substantial enhancement in the quality of care provided to the public at large. A substantial increase in monthly income was observed. It is estimated that from 2003 to 2011, PHC physician salaries had a three-fold augmentation. That brought their base salaries to approximately 70% of the average of specialists working in hospitals (Erus and Hatipoglu, 2017).

In the contracts, about 35 PHC performance indicators were introduced in 2006, and the contracts were extended to all professionals, including midwives, medical assistants and nurses. It is noteworthy that the performance-based contracts also included reimbursements for ambulatory care fees, pharmaceuticals, laboratory tests, consumables, as well as operational costs.

The monthly base payment of each PHC provider is calculated based on a capitation formula in proportion to the number of people registered in the patient list of each PHC team, which gives different weights to different types of patients. The capitation-based payment provides clearly defined financial benefits to the providers when they prioritize mother and child health. It stimulates maternal and child health services, including childhood immunization coverage, at least 4 antenatal care visits in accordance with the pregnancy schedule and follow-up visits for babies and children.

Additionally, the performance-based contracts include 35 performance indicators to ensure provider adherence to their contractual duties (e.g. 10 working hours, confidentiality, patient record-keeping in conformity with predefined guidelines). As an example, in order to combat the adverse practice of absenteeism of health workers, failure to comply with working hours, or absence without leave nor excuse, were met with a possible deduction of up to 20% of their base salaries.

Capitation adjustments linked to the socioeconomic level of the area imply a monthly base salary top-up of around 40% when complemented with additional location bonuses. PHC teams who operate in such environments are entitled to receive additional funds to cover operational costs, like fuel, electricity, and water, as well as expenses for medical equipment, laboratory reagents, consumables, and fees for ambulatory care services. Finally, PHC providers in less developed areas receive additional payments if they make home visits or provide mobile health services, where feasible.

Monitoring of PHC performance

Monitoring and evaluation of the PHC system is conducted systematically since 2005 through a web-based online data reporting platform called the Family Medicine Information System. This platform

enables the tracking of the health-related indicators that are deemed relevant to the family medicine programme. PHC professionals use this platform to provide patient data (e.g. immunization, antenatal care, curative consultations, etc.) to the Provincial Health Directorates. This information is processed and analysed to provide adequate feedback on the target thresholds for staff payments. Auditors from the concerned Provincial Health Directorates carry out regular assessments for compliance with the terms of the performance-based contracts.

Discussion

It took only ten years for Turkey to demonstrate that political will combined with factors that foster a favourable environment, can indeed lead to positive results in PHC. The Health Transformation Programme has yielded substantial and rapid improvements of most of the major health status indicators. It is considered as one of the most successful of its kind in middle-income countries. Key components of this achievement were the implementation of universal health insurance (General Health Insurance scheme), the harmonization of various insurance funds, the adoption of family medicine as the backbone of the PHC system, and the separation of diverse functions pertaining to purchasing of services, care provision, regulation, administration and stewardship (Atun et al., 2013; Yardim et al., 2014). However, these achievements face challenges and command some level of concern, in terms of maintenance, strengthening, and sustainability (Aktan et al., 2014).

Emphasis needs to be put on the regular assessment of the quality of services provided (Bener et al., 2019), especially at the hospital level where a shift from dual practice to the full-time practice of physicians seems to have triggered an increase in utilization. However, the shift in the way these providers are paid (salary to fee-for-service) may favour adverse practices, resulting in reduced consultation times, increase in unethical practices (Aktan et al., 2014). With regard to PHC, Ocek et al. (2014) suggest that more emphasis should be put on some neglected public health aspects, rather than only MCH. Also, services that are not included in the performance-based contracts, may be neglected by PHC providers (Yaman and Gunes, 2016).

There is also a need to closely monitor the impact of the economic burden of out-of-pocket expenditure for the poorest households. Although the data point towards improved financial accessibility, it is the better-off who tend to benefit more from the policies put in place (Manavgat et al., 2020). The financial sustainability of the social insurance scheme is yet to be guaranteed, owing to contextual issues, such as rampant levels of unemployment, increasing demand for healthcare, and an aging population. One needs to bear in mind that the Social Security Institution (SSI) does not only manage health insurance, as premiums for pensions are also part of its pooled fund and used to finance overall social security. A growing number of retirees is very likely to add pressure on the agency's long-term expenditures.

Ökem and Çakar (2015) argue that strengthening the strategic purchasing function of the Social Security Institution (SSI) should be a priority, as it will bring more transparency and efficiency to the multiple arrangements made with the providers. They also plead for emphasis on needed prevention rather than treatment. A robust referral system, along with performing continuous monitoring and evaluation, can contribute to improved outcomes, stronger efficiency, and sustainability, through evidence-informed decision-making.

Despite the overall success, there is room for progress in the Turkish health sector. Loopholes may still be identified and addressed, as many aspects of the system can be accordingly fine-tuned, in order to further sustain the achievements of the Health Transformation Programme.

Ghana

Introduction

In 1957, Ghana became the first Sub-Saharan African nation to gain independence from colonial rule. Following three decades and marred by a series of *coups d'états*, the country adopted multi-party democracy in 1992. With over 31 million inhabitants, it is the second most populous West African country after Nigeria. The country has known an economic boom during the 2000s, fuelled by the production of cocoa, gold, natural gas and crude oil. Since that period, the Ghana has been consistently considered as one of the African continent's most stable and progressive countries in terms of human development, governance, innovation, economic growth and healthcare.

Many reforms have been introduced by the government in order to alleviate the burden caused by the issues of geographical inaccessibility and the "cash and carry" policy¹⁴ that prevailed until the mid-2000s (Nyonator and Kutzin, 1999). In 2005, out-of-pocket (OOP) payments still accounted for 45% of total health care financing in Ghana. One such reform is the introduction in 2003 of the Ghana national health insurance scheme (GNHIS), which aimed to eliminate user fees at the point of care delivery (Kusi et al., 2015). Also, the community-based health planning and services (CHPS) initiative, launched in 2000 as a strategy to deliver health care to the underserved remote areas of Ghana has contributed to the strengthening of primary health care (Nyonator et al., 2005). The country is still striving to attain universal health coverage, but still faces considerable financial, political, structural and human-resource-related challenges in order to effectively reach that goal (Okoroh et al., 2018).

Country profile¹⁵

Ghana is located north of the Guinea coast of West Africa, with Burkina Faso, Togo and Côte D'Ivoire bordering it on the North, East and West, respectively. It has an area of 238.537 km². A former British colony, it attained independence in 1957, and became a republic in 1960. The current political regime is based on a representative democracy, whereby the President of the republic holds the functions of both head of state and head of government. There is a separation of powers, although the legislature is vested in parliament as well as in government. The Judiciary is clearly independent of the two other powers.

The country is divided into 10 administrative regions and a local government system comprising 216 administrative and political districts categorized as metropolitan, municipal and district assemblies (MMDAs) with limited legislative functions. The 2020 projected population was about 31 million, increasing from 24,7 million (2010 population census). The population growth rate of 2,2% in 2019 has been relatively stable since 1960. The total fertility rate, estimated at 4,2 births per woman in 2014, declined to 3,8 in 2019 (GSS, 2015).

The male–female ratio was 0,97 in 2020. Life expectancy at birth has progressively increased from 38 years at independence to 68,2 years in 2020, with a transition towards an ageing population (GoG, 2010). Ghana has a youthful population structure as those below 25 years represent approximately 58.5% of the total population. However, the proportion aged 65 years and above is increasing at a faster rate than in developed countries, as is the case for most African countries (Kwankye, 2013). The total dependency ratio of 67,4 represents therefore a huge burden for the working population, and there is a large population of unskilled and unemployed youths (GoG, 2011). Urbanization is increasing at a very fast pace, with the urban population rising from 51% in 2010 to an estimated 57,3 in 2020. This is driven by an annual urban growth rate of 3,4%.

¹⁴ User fees paid on a fee for service basis at the point of care delivery.

¹⁵ Data from the CIA world fact book (<https://www.cia.gov/the-world-factbook/countries/ghana/>) or the World Bank Development indicators databank (<https://data.worldbank.org/indicator/>), unless otherwise specified

Ghana's economy has grown at a very fast pace during the 2000s, reaching an average of 8,7% per year between 2008 and 2012. During that period, GDP growth outpaced that of the population, and the per capita GDP growth rate peaked at 14,5 % in 2011. That was the second-highest rate in the world that year, which saw Ghana upgraded from low-income to lower-middle-income country. The Ghanaian cedi lost 18% of its value against the US dollar in 2015, and the inflation rate rose from 17,7% in 2015 to 18,5% in 2016. The 1.1% GDP growth in 2020 is a steep fall from the pre-COVID-19 level of 6,5%.

Ghana achieved its Millennium Development Goal of halving the poverty rate. However, a large proportion of its population remains below poverty line. The poverty rate dropped from 52 percent in 1991 to 21 percent in 2012, but 6,4 million Ghanaians continue to live below the poverty line. In 2019, an estimated 3,8% of the population was pushed under the poverty line, owing to catastrophic out-of-pocket health expenditure, despite a relatively well-performing national health insurance scheme. Large social and economic disparities persist between regions (Gini index in 2019 of 42,4 in 2012).

The health status of Ghanaians improved significantly in terms of a reduction of under-5 and maternal mortality, but Ghana did not achieve the related targets for MDG 4 and 5. Infant mortality declined from 155 to 60 deaths per 1000 live births between 1988 and 2015, representing a reduction of about 60%. The maternal mortality ratio declined from 634 to 319 per 100.000 live births between 1990 and 2015, about a 50% reduction, but still short of the MDG target. Great disparity has been observed in the proportion of skilled attendance at birth (Wang et al, 2017). The coverage rate in highest quintile (96,7%) is more than double that of lowest quintile (46,9%).

There are, however, marked differences in health status by geographical area (urban–rural), and socioeconomic status (Wang et al., 2017). The urban and rural rates reported were 64 and 75 per 1.000 live births respectively, while the rates for the lowest and highest wealth quintiles were 92 and 64 deaths per 1.000 live births respectively.

The country is still undergoing an epidemiological transition, with a double burden of both communicable and non-communicable diseases (IHME, 2010). In 1990, the top five causes of death, in order of proportion of deaths, were malaria, lower respiratory infections, diarrheal diseases, measles and neonatal sepsis, all of them communicable diseases. In 2015, cerebrovascular pathologies, ischemic heart disease and diabetes had a much greater proportion of the national disease burden, although malaria and lower respiratory infections remain on the top five list.

Malaria is endemic in the country, with varying levels of endemicity levels in different ecological areas. The Ghana Urban Malaria Study (2013) identified poverty, living in rural areas and peri-urban agricultural areas as factors for increased risk of malaria transmission. Neglected tropical diseases and frequent outbreaks of epidemic-prone diseases, such as yellow fever, cholera, meningococcal disease and haemorrhagic fevers, represent major challenges to the effective delivery of primary health care, as they contribute to resources, while increasing workloads of health professionals.

Malnutrition continues to be a major public health problem (DHS,2014), especially among children and women. The prevalence of anaemia among women and children persistently high (above 60% for both groups). Undernutrition remains a significant public health issue, whereas trends in obesity have become alarming, especially in the middle and southern parts of the country, where the adult prevalence rate of 10,9% in 2016 (about 40% in women). As suggested above, there is a rising burden of noncommunicable diseases, such as cancers, cardiovascular disorders, diabetes, road traffic accidents, and arterial hypertension. The prevalence of hypertension in men and women aged 15 to 49 years is 12.9%. It is higher in urban areas and among the better-off.

Health service organisation

Ghana has a pluralistic health system, comprising allopathic public and private sectors and the traditional medicine sector (Tabi et al., 2006). Each of these sectors plays a part in service delivery and health financing. The Ministry of Health performs the overall stewardship function, thus ensuring coordination and regulation. The health system is a three-tier system, comprising district (primary), regional (secondary) and national (tertiary) levels. District health services, where primary health care is delivered, are further divided into three levels: Community-based Health Planning and Services (CHPS) zone (community), subdistrict (health centres, clinics) and district (district health directorate and district hospital).

There are an estimated 3.500 public, private, and faith-based health care facilities in Ghana (Wang et al., 2017). Fifty-seven percent of these facilities are public, 33% are private, and 7% are operated by the Christian Health Association of Ghana (CHAG). Facilities include health centres, clinics, maternity homes, and different types of hospitals (figure 8). While most health centres and district hospitals are public, most clinics, maternity homes, and uncategorized hospitals are private. CHAG runs one municipal hospital, and one teaching hospital is private. All other municipal, metropolitan, regional, and teaching hospitals are publicly owned. The share of private facilities ranges from 5,4 % in the Northern region to 74,9% in the Greater Accra region.

Human Resources

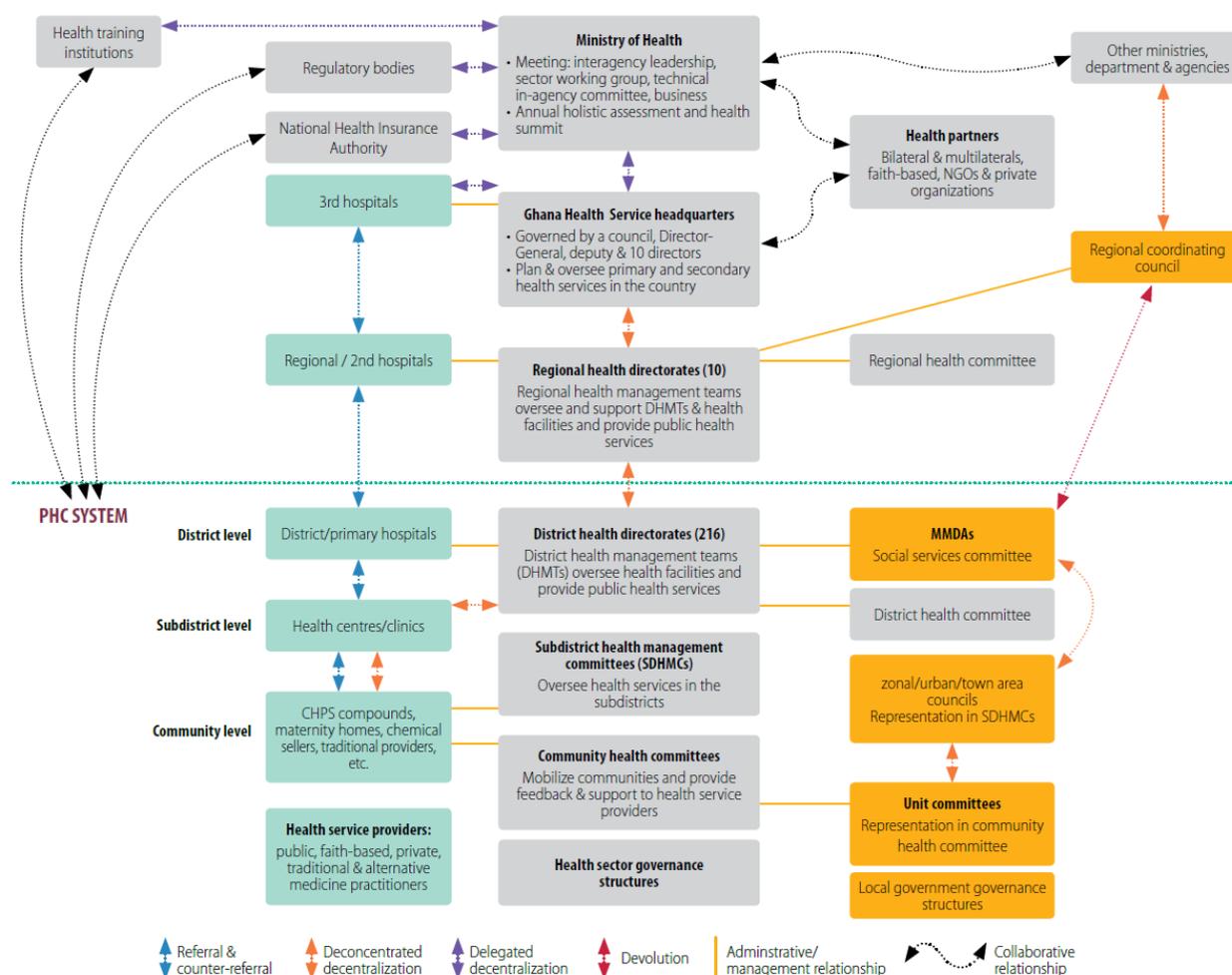
As of February 2016, an estimated 104.652 health care workers were employed by public and CHAG facilities, with nurses representing the majority of the workforce. Eighty-four percent of workers in public and CHAG facilities are health care professionals, 15% are administrative officials, and 1% are other types of support personnel. Most health professionals are nurses (59%), followed by trainees (13%), allied health professionals (13%), physician assistants (4%), and doctors (4%). The distribution of public health workforce is broadly consistent across regions. However, the Greater Accra area has a higher number of health workers per capita due to the concentration of medical doctors in the capital city, while the Upper East and Upper West regions have high numbers of health workers per capita due to their low population density. All other regions have between 2,5 and 2,9 individual health providers working in public facilities per 1.000 people.

Pharmaceuticals play a very important role in Ghana's health system. Its dependence on imported medicines has exposed NHIS to price changes and exchange-rate volatility. Pharmaceutical distribution is dominated by the private sector. Approximately 80% of drugs dispensed in public health facilities are directly procured by regions or facilities from private distributors.

Health care financing

The total health expenditure as a percentage of Ghana's gross domestic product was 3,3% in 2017. The health sector is mainly financed by the government, its development partners, and Ghanaian households. Public resources are allocated to the Ministry of Health (MoH) and health facilities through budget transfers, while the National Health Insurance Authority (NHIA) is funded by a) the national health insurance (NHI) tax levy and b) by deductions from the Social Security and National Insurance Trust (SSNIT). Technical and financial development partners also support the MoH, NHIA, and individual health facilities through grants, technical assistance, and commercial loans. Household contributions include NHIS premium payments and out-of-pocket spending at the point of care (Okoroh et al., 2018). Figure 9 provides a schematic overview of the way in which funds are channelled throughout the system.

Figure 8 - Governance and health care delivery structure in Ghana's health system (Source: WHO, 2017)



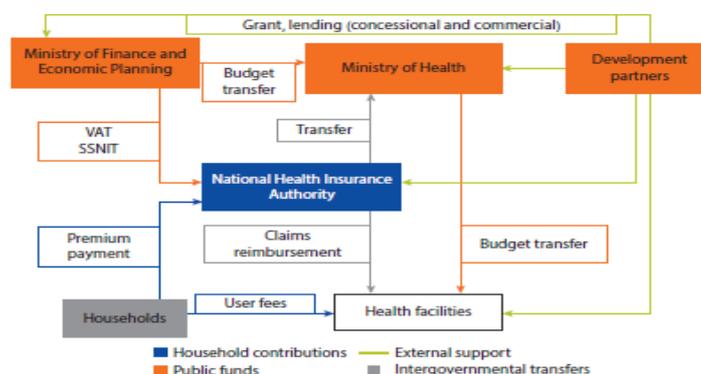
During the last decade, per capita health spending has increased, and the sources of funding have shifted away from donors and towards the government and households. In 2005, Ghana's development partners were financing more than half of the country's total health expenditures. As the NHIS expanded, the government's share increased significantly, and in 2010 public funding accounted for more than two-thirds of health spending. However, from 2010 to 2012, the share of private funds—mostly direct out-of-pocket payments—almost tripled, while both public funds and external assistance declined.¹⁶ In 2018, Government expenditure amounted to 38,89% of THE, whereas out-of-pocket spending from households was 37,69%, and donor contributions 12,44%.

Ghana's National Health Insurance Scheme (GNHIS)

The National Health Insurance Scheme is financed primarily by tax revenue. The majority of its expenditures consists of reimbursements of provider claims. The national health insurance levy (2,5% on sales of goods and services) provides 74% of the scheme's revenue, while Social Security and National Insurance Trust (SSNIT) deductions comprise another 20%. Premium payments from uninsured service users provide approximately 3% of the funds. As of 2014, the NHIS covered 10,5 million people, approximately 40% of Ghana's population that year. The total number patient visits to health facilities by care-seekers, increased from under 0.5 per capita in 2005 to almost 3 per capita in 2014. This rise in utilization has been attributed to the GNHIS (Wang et al., 2017; Witter and Garshong, 2009).

¹⁶ Source: Ghana National Health Account Study 2005, 2010, and 2012

Figure 9 - Flow of funds in the Ghanaian Health Sector (Source: WHO, 2017)



Payment of provider claims account for 77% of NHIS expenditures. NHIS payments now represent over 80% of health facilities' operational expenses. The remaining 20% contributing to operational expenses come from out-of-pocket payments by service users. Ghana is the only country in the world to finance its national health insurance scheme mainly through value-added tax (VAT) revenue. This mechanism theoretically ensures that NHIS funding keeps abreast with the pace of Ghana's economy. This is rendered possible by the relative stability of NHIS revenue as a proportion of total government expenditure. However, using the VAT to finance health care also establishes some sort of implicit subsidy for essential care. It provides a basis for pooling risks and costs at the national level, which can prevent fragmentation of the scheme as seen in other countries. This mechanism has one major disadvantage, in that revenue does not necessarily increase as coverage expands.

Beneficiaries

All residents of Ghana are eligible for NHIS coverage, including resident foreign nationals. However large categories of subscribers are exempted from paying premiums. These include contributors to SSNIT, persons under the age of 18 or older than 70, indigent people, institutionalized people and those who benefit from social protection programmes. Over two-thirds of NHIS members are exempted from premium payments. The indigents group accounts for 14% of all NHIS members. According to Kusi et al. (2015), individuals insured with the NHIS have significantly lower out-of-pocket spending when they fall ill, and their households are less likely to incur catastrophic health care expenditures when compared to the uninsured.

Benefits Package

The GNHIS covers 95% of diagnosed conditions and has no requirements for cost-sharing. A basic insurance policy covers all outpatient, inpatient and emergency care. A list of excluded services is also explicitly defined. These include rehabilitation other than physiotherapy; vision, hearing, orthopaedic and dental aids and prostheses; elective cosmetic procedures except reconstructive surgery; antiretroviral drugs for treating HIV/AIDS; assisted reproduction, including artificial insemination and hormone replacement therapy; echocardiography; medical photography; angiography; orthoptics; dialysis for chronic kidney failure; heart and brain surgery except to repair trauma; cancer treatment other than cervical and breast cancer; organ transplants; medicines not included in the NHIS Medicines List; diagnosis and treatment abroad; medical examinations for purposes of employment, school admissions, visa applications, driving licenses, etc.; VIP ward accommodation; and mortuary services. NHIS beneficiaries do not pay out-of-pocket for services or pharmaceuticals that are mentioned in their policy.

Provider Payments

Under the GNHIS, accredited service providers were initially paid exclusively on a fee-for-service (FFS) basis. As this method of payment posed challenges in claims processing and created adverse incentives for moral hazard, excessive supply, and irrational utilization of services (Wang et al., 2017), sometimes at the detriment of quality of care, the authorities elected to shift to two other payment methods: Ghana diagnosis-related-groups (GDRG) and capitation. These novel methods were introduced respectively in 2008 and 2012, mainly to contain the rapidly rising costs. The GDRG is still being used in hospitals for all inpatient care, and outpatient specialty care in regions where capitation was being implemented at the time (Ashanti). Capitation payments were to be used for outpatient primary care. However, owing to political interference and provider resistance, the initiative was not scaled up (Koduah et al., 2016). In 2017, capitation as a provider payment method was abandoned.

Costs for pharmaceuticals are reimbursed to providers on an FFS basis, in conformity with a preestablished tariffication and according to the quantities of medicines claimed by the providers. A revised NHIS list of essential drugs was introduced to promote rational prescription practices.

Private health care providers receive higher GDRG tariffs (and capitation rates). This is to compensate possible losses due to the fact that they do not receive any funding from the MOH, as do public providers (including CHAG facilities). As a consequence, notable differences may be observed in rates and fees, according to the category and ownership of a given health service.

In order to provide adequate services its members, the GNHIA requires that health facilities obtain formal accreditation (Nsiah-Boateng et al., 2016). Upon reception of an application and requisite fees, the submitted documents are verified for completeness and an accreditation toolkit is sent to the facility. The GNHIA's quality-assurance department undertakes a detailed assessment of the facility and submits a report to management, which makes the final decision. Once approved, the accreditation is valid for a period of five years. According to the NHIA, a total of 3,434 health care providers have been accredited to provide services to the insured since July 2012 (NHIA, 2012).

The NHIS is a major source of operational financing for health facilities. Funds allocated to the MoH cover more than 95% of personnel wages, but only a minute portion of non-salary recurrent expenditures for health care workers. Health facilities rely quite heavily on NHIS reimbursement to recover their operational expenses. Dreaded delays in processing of claims and reimbursements, may cause major inconveniences at facilities that may not be able to generate sufficient internal funds at certain periods. At the end of 2008, such delays due to multiple bottlenecks within the system amounted to a backlog equivalent to four months of total IGF revenue.

Primary health care delivery

Primary health care in Ghana is based on a three-tier District Health System model, comprising three levels of care. The first level represents the community where social mobilization occurs; village health workers and traditional birth attendants are trained to provide basic primary care with the support of village health committees under the supervision of first-line health personnel.

The second level is the subdistrict, with a health centre staffed by a medical assistant, midwife, general and community health nurses, field technicians and other support staff to provide integrated clinical, public health and maternity services, including outreach services, community mobilization and health promotion, and supervision of traditional birth attendants and village health workers.

The third level is the district, comprising a hospital as the first-level referral health facility, responsible for supervising the health centres; and the district health administration, responsible for the overall planning and implementation of health programs in the district. The district health administration is managed by the District Health Management Team (DHMT), comprising the district medical officer as head of the district hospital, a public health nurse, a disease control officer, a

nutrition officer a medical superintendent, and the hospital secretary in charge of the district hospital.

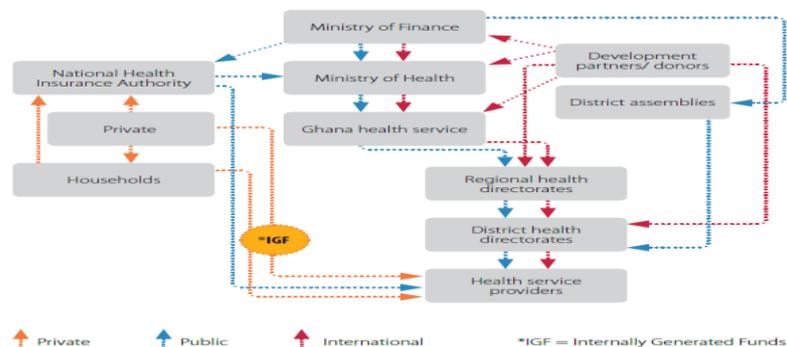
The care delivery system as a whole, formally operates under the MOH, but day-to-day management and administration of all state-owned facilities (excluding teaching hospitals and some parastatal institutions) are handled by the Ghana Health Service (GHS). The Ghana Health Service is the government agency in charge of Primary Health Care organization in the country. Its deconcentrated structure consists of 10 national divisions, 10 regional entities, and 216 district health directorates.

The Community Health Planning and Services was launched in 1994 with the purpose of reducing geographical barriers to access to health care. The model is based on the premise that community engagement is both a critical function and enabler of strong primary health care systems. About 62% of the demarcated CHPS zones now have a functional CHPS compound, and this has given a great boost to PHC (Nyonator et al., 2005; Sory et al., 2003). Strong strategic public health programmes have also emerged with a significant positive impact on the eradication, elimination and control of some public health problems in the country.

Purchasing PHC

The main funding sources for primary health care are similar as for the rest of the health system and are broadly classified in the National Health Accounts as public, private and international funds. The public funds consist of those from the consolidated fund, financial credits and the NHIS funds, excluding the premiums and donor support. The international funds consist of donor funds routed mainly through the Ministry of Finance as multi-donor budget support and sector budget support or earmarked funds provided to the Ministry of Health or its agencies for programs. The private funds are the out-of-pocket payments by households for service delivery, the health insurance premiums and other private resources spent on health (so-called internally-generated funds). These funds are channelled through multiple pathways, as shown in figure 10.

Figure 10 - Flow of funds for PHC in Ghana (source: WHO, 2017b)



Monitoring PHC performance

The PHC monitoring system is an essential part of the overall health sector monitoring and evaluation system. It relies on performance indicators and targets that are regularly monitored through various reporting systems, site visits, and periodic review meetings and also peer reviews at all levels (Odei-Lartey et al., 2020). Many of these indicators are obtained from the DHIMS2 database and management reports. The others are derived from the Demographic and Health Surveys, Ghana Living Standards Surveys and other specific studies. The Ministry of Health along

with the Health Sector Working Group¹⁷ also conducts joint monitoring visits to the regions every semester.

The Ministry of Health and GHS have monitoring and evaluation frameworks that use a set of sector-wide indicators to monitor performance at all levels of the PHC system. The Policy, Planning, Monitoring and Evaluation Division of the GHS analyses the data in the DHIMS2 and provides systematic feedback to relevant stakeholders. This is expected to be replicated at the regional and district levels. While the Division should theoretically carry out this task on a monthly basis, feedback from regions to districts and from districts to subdistricts, is not given systematically. This abnormal situation is attributed to excessive workloads, inadequate logistics and lack of concern for information management. Well-funded vertical programmes, such as those supported by the Global Fund, conduct regular monitoring and technical support visits and even data validation exercises at the lower levels, whereas the poorly-funded ones hardly carry out any regional visit (Odei-Lartey et al., 2020).

Generally, the PHC monitoring systems in Ghana have a robust framework for supporting the achievement of the PHC goals, but the areas of good practice are not scaled up due to leadership failings, negligence, and inadequate resources. However, in comparison with other sectors, the health sector is highly commended for its relatively efficient and inclusive monitoring and evaluation system.

Discussion

The different policies, strategies and programmes that have taken place in Ghana's health sector during the last two decades sought the achievement of better health outcomes and financial protection for the population, especially the most vulnerable groups. It also envisioned a more robust health system that is responsive to people's needs, efficient, equitable, and sustainable. From the health system perspective, a significant reduction of increasing costs of care and improvement of quality were of major concern to the government (Boakye et al., 2017).

The reforms have been relatively successful in restructuring institutional arrangements in the health sector. It is argued that a separation of diverse functions previously held by the Ministry of health through the creation of relatively autonomous agencies, such as the Ghana Health Service (GHS), the National Health Insurance Authority (NHIA), teaching hospitals, and several regulatory bodies, has enabled the emergence of a favourable environment for innovation, testing of models and more profound organizational changes in health service delivery systems (Nsiah-Boateng et al., 2016; Saleh, 2013).

The state has increasingly supported the financing of health services and further entitlements of beneficiaries through the extension of health insurance coverage. As a combined result of these policy changes, the health sector is currently in a transition from an input-based health financing system limited to public health care providers to a performance-based system open to public, private not-for-profit or even for-profit health care providers. The system has also shifted to the demand-side, thus the increased utilization of services (Dalinjong and Laar, 2012). Some health services are in the process of being more decentralized than before (Couttolenc, 2012) and the district level has been recognized as the principal location of primary health care delivery as a component of the Community-based Health Planning and Service (CHPS) initiative. These changes in the health system have not been accompanied by similar decentralization of management structures. Limited management autonomy is observed at public health facilities. Teaching hospitals are an exception, since they enjoy full autonomy. Management of human resources for health is still centralized within MOH and GHS structures. Mission health facilities, such as those owned by the

¹⁷ Joint group comprised of bilateral and multilateral agencies, as well as NGOs

Christian Health Association of Ghana, find themselves in a similar situation, when they depend on the MOH to acquire their human resources.

Maldistribution of health workers also continues to be a problem, causing some rural areas of the country to remain underserved. The CHPS strategy and PHC have not yet succeeded in bringing about more integrated and inclusive health care in the remote areas. Management of public health facilities and mission health facilities has gained flexibility in the purchase of drugs and the management of internally generated revenues. A weakness in the public procurement and distribution system led to the reliance on more effective private sector mechanisms for the acquisition of drugs.

Despite all the encouraging achievements, many challenges remain on Ghana's journey toward universal health coverage. Sustainability of NHIS should be addressed urgently. The VAT as a major source of funding, although a theoretically sound concept, could collapse in the event of major economic downfall. The premium exemptions for large groups of the population may slow down the efforts by the government to keep subsidizing the more vulnerable populations. These exemptions appear to cause over-utilization of services by the better-off, whereas access is not fully enjoyed by the poor (Kusi et al., 2015), although the NHIS purports to be pro-poor by definition. Enrolment in the scheme, although mandatory by definition, is still being carried out on a voluntary basis, as with the community-based health insurance schemes that were in effect prior to the launching of the NHIS in 2003.

Agyepong et al. (2016) concluded that to attain universal population coverage with an affordable package of essential care, one should ensure that enrolment in national health insurance is effectively compulsory. They argue that this requires a policy and design that are well thought through, regardless of resource availability. They also suggest that Ghana continue to pay careful attention to responsiveness and incentives to potential stakeholders at the implementation levels. One area that may need to be revisited is that of provider payment mechanisms (the short-lived capitation model).

Brazil

Introduction

Brazil is the largest (area 8.510.345 km²) and most populous (about 211 million people) country in South America, sharing frontiers with all South American countries but Ecuador and Chile. The country is worldwide known for its widespread regional and social inequalities (Gini Index of 53,4 in 2019) that affect health status and health care coverage.

The 1988 Constitution securing health as a citizen right and mandating the state's responsibility to deliver health care paved the way to the creation of the 'Unified Health System' ("*Sistema Único de Saúde*" - SUS) in 1990. Since then, Brazil has made consistent progress towards universal health coverage (UHC) and better health outcomes but not without challenges and drawbacks.

At present, the Brazilian health system is a complex mix of public and private (for profit and not for profit) providers. It is the only country in the world with a unified health system where private expenditure (58,2%) is higher than the public expenditure (41,7%) (Castro et al., 2019; Paim et al., 2011).

Country profile

Brazil is subdivided into five macro-regions according to physiographic, social and cultural characteristics: North, Northeast, Southeast, South and Midwest. The vast majority of people live along, or relatively near, the Atlantic coast in the East, predominantly in cities - 87% of the total population is urban, of which 16% live in "*favelas*" (slums). More than 60% of the country is forested. This results in a very irregular demographic density, ranging from 4,8 inh./km² in the Northern Region (the Amazon rainforest) to 96 inh./km² in the South-eastern Region (mainly in the cities of São Paulo and Rio de Janeiro), impacting on the offer of services.

Brazil is a federal presidential republic, with a bicameral National Congress consisting of the Federal Senate (81 seats) and the Chamber of Deputies (513 seats). The country is divided into 26 states and one Federal District, Brasília, the capital. Municipalities, numbering 5.568 in total, are the basis of the public health system. Large cities are subdivided into districts for better health management, and municipalities are grouped into health regions at each state, constituting regional health networks (Vargas et al., 2015; Carvalho et al., 2017).

The eighth-largest economy in the world, Brazil is an upper middle-income country, slowly recovering from an economic recession in 2014-16 that ranks as the worst in the country's history. In 2019, the World Bank (WB) estimated its gross national income (GNI) per capita at 10.826 in current US\$ (WB, 2019) with 4,6% of the total population estimated to be living with less than USD 1,9 a day (poverty headcount ratio, 2011 PPP). Austerity measures introduced in 2016 (DOU-Brasil, 15/12/2016) imposed a strict limit on the growth of public expenditure until 2036. These measures may threaten the sustainability of SUS (Castro, 2016; Costa Ndo, 2016).

A demographic transition took place in Brazil in the last decades, while urbanization increased; the proportion of the older (60+ years) population doubled, and elderly dependency rate increased, from 6,3% in 1970 to 13,3% in 2019. The median age is 33,2 year and the majority of the population is between 25-64 year of age.

Health improved from 1990 to the present, despite an ageing population, an increasing non-communicable diseases (NCD) burden, and rising costs of care. However, improvements and disease burden varied between states. The fertility rate decreased: from 5 children per woman in 1970 to 1,7 in 2019. The maternal mortality ratio went down, from an estimated 98 deaths/100.000 live

births in 2000 to 58 in 2018. Life expectancy at birth increased with 17 years between 1970 to 2019 (from 58,9 to 75,9 respectively).¹⁸

An epidemiological transition towards NCD and related risks occurred nationally. The five leading causes of death by order of importance from the highest to the less important are: ischaemic heart disease, stroke, lower respiratory infections, chronic obstructive respiratory disease and interpersonal violence. In some states, interpersonal violence is acknowledged as a public health concern. Brazil has a widespread obesity epidemic; high blood pressure and tobacco consumption are other risk factors driving the surge in NCDs. In terms of disability-adjusted life years (DALYs), neonatal disorders, ischaemic heart diseases and interpersonal violence are the leading causes. The trend of mortality for children had considerably decreased: under 5 mortality went from 68,3/1,000 live births (1990) to 20,2 (2019), and infant mortality from 58.7/1,000 live births (1990) to 17,9 (Azeredo Passos VM et al., 2017; HME, 2019; Schmidt et al., 2011).

The successful free nationwide vaccination programme, increased access to health care and improvements in hygiene and sanitation led to declines in morbidity and mortality by infectious diseases. Among the successful declines are diarrhoea, vaccine preventable diseases and Chagas disease. Hepatitis A and B, HIV/AIDS (Benzaken et al., 2019; Greco, 2016), leprosy, malaria, schistosomiasis and tuberculosis saw a mildly successful control (WHO, 2020; IHME, 2019; Waldman and Sato, 2016; Barreto et al., 2011).

Re-emerging and emerging diseases include cutaneous and visceral leishmaniasis, yellow fever, and the three arbovirus diseases - dengue, zika and chikungunya (Stolerman et al., 2019; de Souza et al., 2018, Castro, 2016). Since 2020, Brazil has been one of the most hit countries by the Coronavirus disease 2019 (COVID-19) with record-breaking death tolls, bed occupancy in intensive care units (ICU) exceeding 100%, and depletion of oxygen and medicines supplies. Vaccination is accelerating; at present, around 60% of the total population received at least one dose of the vaccine, and 26% of the total population is fully vaccinated (Rocha et al., 2021).

Health service organisation

Brazil's unified health system (SUS) was conceived during the 1980s as part of the social movement of the country's re-democratization process. It was implemented since 1990. SUS is based on (i) the universal right to comprehensive health care at all levels of care; (ii) decentralization; and (iii) social participation in formulating and monitoring of health policies through health councils (Santos, 2018; Paim et al., 2011). The health system is a complex public-private mix of complementary and competitive providers and purchasers. It is constituted of the public and the private for-profit and not-for-profit sector, which includes private health insurance.

SUS offers free health care and covers all types of care for all residents and visitors, including undocumented people. Delivery of services is organised into the first level (the Basic Health Units - UBS); the intermediate level, which is the responsibility of Mobile Emergency Care Service (SAMU), present in 3,618 municipalities) and the Emergency Care Units (509 operational UPAs in the country); and the medium- and highly-specialised care provided in hospitals (MOH, 2021).

The subsystem for Indigenous health care (SasiSUS), under the MoH Special Secretariat for Indigenous Health (SESAI), covers the Indigenous Brazilian population (around 890.000 persons). To be noted that health policy and care for indigenous peoples are one of the most delicate and problematic issues in the present official governmental discourse (MOH, 2021; Mendes et al., 2018; Rolim et al., 2013).

¹⁸ All data are from the WB Development Indicators Databank (<https://data.worldbank.org/indicator/>) and/or the CIA World Fact Book (<https://www.cia.gov/the-world-factbook/countries/brazil/>) unless otherwise stated.

Figure 11 presents the main structures, functions and relations of the Brazilian public health system. Figure 12 shows further SUS policy-making and social participation linkages.

SUS offers promotional, preventive, curative and rehabilitative services, including maternity, mental health, medicines, dental care, wheelchairs, hearing aids, optometry and vision care, physiotherapy, home care, oncology, organ transplants, renal dialysis, blood therapy, emergency care and surgery. Community participation is guaranteed by the constitution at all levels of government. Health councils and health conferences are composed of 50% community members, 25% health providers and 25% health managers. Lately, political influence had negatively pervaded these participation structures (Rolim et al., 2013; Barnes and Coelho, 2009; Cornwall and Shankland, 2008).

Figure 11 - Organisation of the Public Unified Health System (SUS), Brazil (Source: Massuda, 2020)

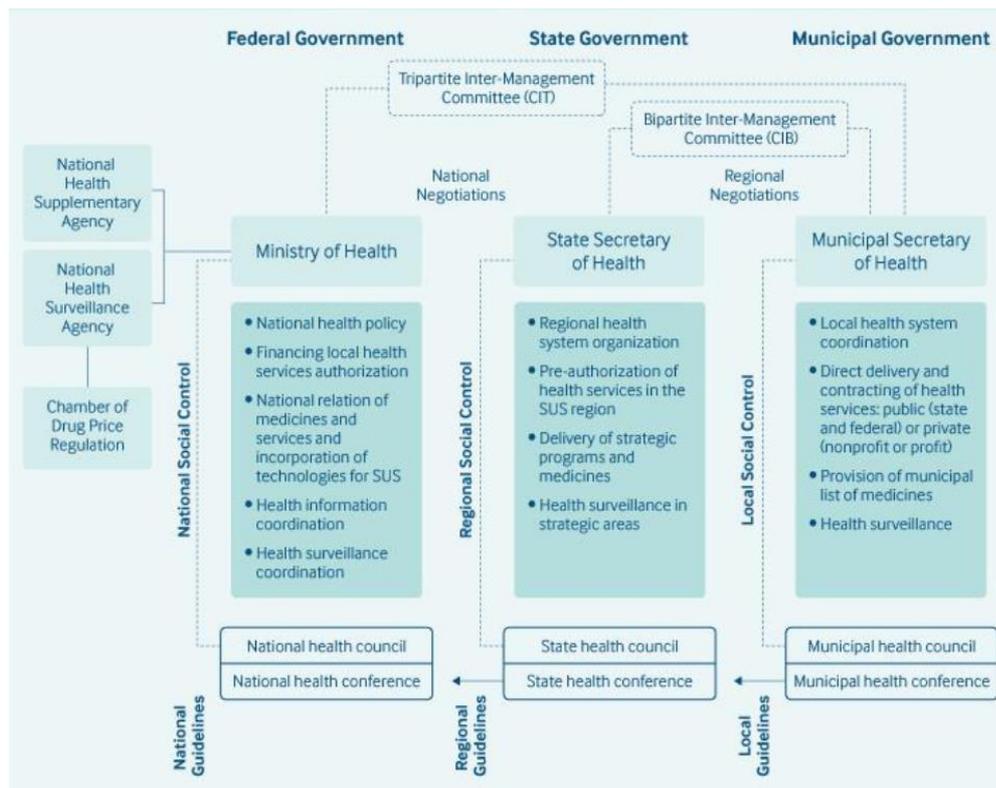
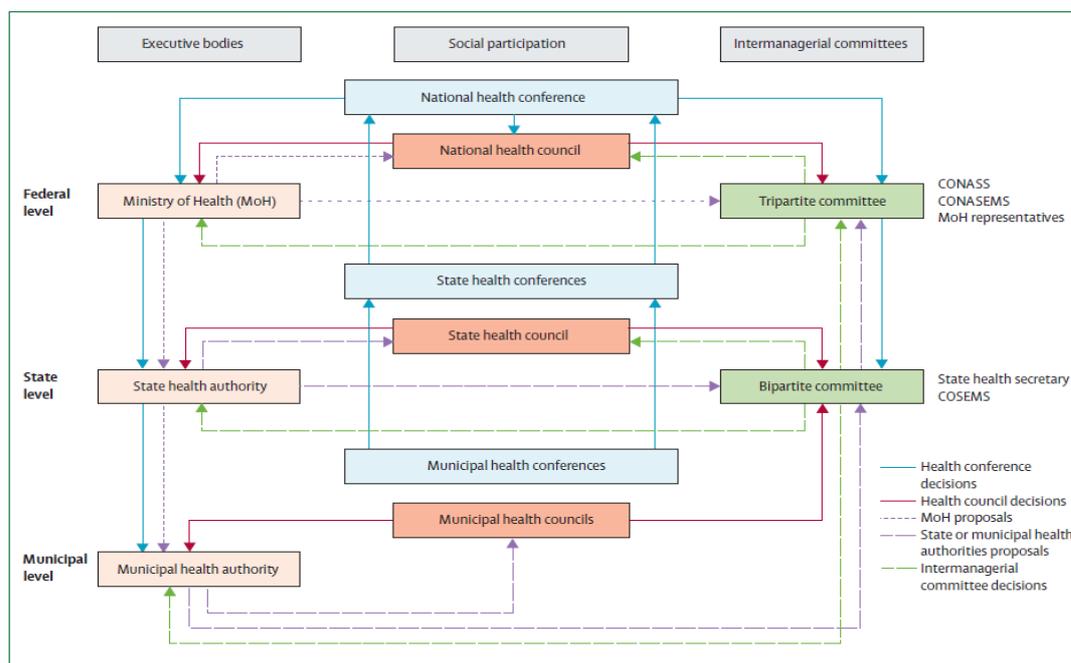


Figure 12 - SUS policy making and social participation paths (Source: Paim et al., 2011)



CONASS = National Council of Health Secretaries; CONASEMS = National Council of Municipal Health Secretariats; COSEMS = Council of Municipal Health Secretariats.

Health care financing

In 2017, Brazil's health spending was 9,5% of its GDP of which government spending accounted for 41,7% (WB, 2018). The Brazilian health system is financed through taxes, social contributions (taxes for specific social programmes), out-of-pocket (OOP) spending, and employer contributions to health care.

The public unified health system (SUS) is financed by tax revenues and social contributions from all three levels of government (with minimum contribution rates defined by law). Over the past three decades, the share of federal funding has declined, while funding from municipalities has increased. In 2019, municipal and state contributions amounted to 22,7% and 13,8% of their revenues respectively, while the federal level contributed 13,9% of the federal net current revenue (Funcia, 2019). The National Health Fund (FNS) is the financial manager of resources destined to finance current and capital expenses of the Ministry of Health, as well as direct and indirect administration bodies and entities that are members of the SUS.

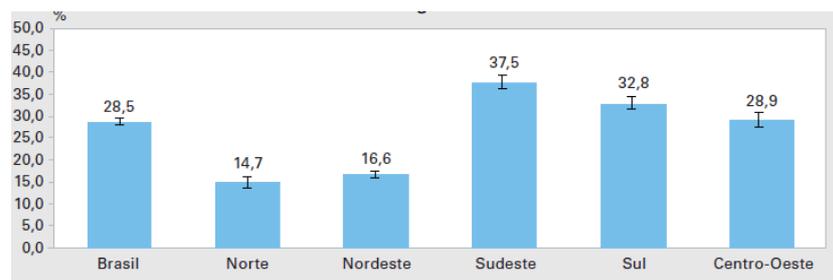
The private health subsystem (consisting of for-profit, not-for-profit, private health plans and health insurance companies¹⁹) is financed in various ways with private or public funds, including state subsidies. The private health subsystem interfaces with the public system by providing services that are contracted-out by the SUS, including out-patient care, hospital services, medicines and private health plans.

Private health plans have grown steadily these last decades through government incentives to the private sector and fuelled by the non-satisfaction of the public with the quality of services offered by

¹⁹ *Brazilian Plans vs Insurances =>* In the case of *private health insurance*, the beneficiary has the freedom to choose doctors, hospitals and laboratories. Reimbursement is valid throughout the country; however, the amount will depend on the type of insurance contracted. In the *private health plan*, policyholders have the medical assistance service provided by professionals and establishments accredited by the operator; there is no free choice.

the SUS. In 2019, 28,9% of Brazilians had a private medical/hospital or dental plan, but this average hides great regional disparities - from 14,7% in the North to 37,5% in the Southeast - as shown in Figure 13. Around 70% of these plans are offered as employment benefit. Individuals and legal entities may deduct health plans/insurance costs as well as the purchase of health services, medicines, and medical supplies from their taxable expenses. The country thus spends 0.5% of GDP on tax exemptions for private health care, primarily those who pay for private health plans/insurances. The National Agency of Supplementary Health (ANS) is responsible for supervising and regulating both health plans and health insurances.

Figure 13 - Proportion of people who had any health insurance, medical or dental care (Source: Pesquisa Nacional de Saúde 2019)



Primary health care delivery

At the MoH, all PHC-related activities are presently situated at the Secretariat of Primary Health Care (SAPS), created in May 2019. It clearly defines PHC20 in the Alma Ata spirit: *“Primary Health Care (PHC) is the first level of health care and is characterized by a set of health actions, at the individual and collective levels, covering health promotion and protection, disease prevention, diagnosis, treatment, rehabilitation, harm reduction and health maintenance in order to develop comprehensive care that has a positive impact on the health situation of communities. It is the main gateway to the SUS and the communication core of the entire SUS Care Network, and should be guided by the principles of universality, accessibility, continuity, comprehensiveness, accountability, humanization and equity.”*

SAPS is responsible for PHC including the development and implementation of the Family Health Strategy (ESF). However, there have been misunderstandings and lack of clarity concerning the concept of Primary Health Care (PHC): the terms ‘primary health care’, ‘basic health care’, and ‘family health care’ are interchangeably used in official documents (Fertonani et al., 2015). Many official documents continue to call the services ‘basic health care’ (*“atenção básica de saúde”*).

Strategy, Facilities, Services, Human resources

The Family Health Strategy is implemented since 1994 and has been adopted by 98% of municipalities, reaching 62.6% of Brazilians in 2019, with the highest coverages in the Northeast and South regions.

The Basic Health Unit (UBS) is the main gateway to the SUS. The UBS offer a broad spectrum of free of charge PHC services, including promotional, preventive, and curative services and activities in schools and local associations. These include individual and collective consultations by physicians, nurses and dentists; home visits and care; vaccination; action to dengue control and other

environmental health risks; pre and post-natal; screening for cervical cancer and breast cancer; dressings; new-born bloodspot screening test; rapid testing for syphilis and HIV; rapid pregnancy test; prevention, treatment and monitoring of STI and communicable diseases; follow-up of chronic NCD (such as hypertension, diabetes and respiratory diseases); tobacco control; actions to promote health and social protection in the community.

The Family Health Strategy promotes the use of family health teams, made up of one generalist doctor, one nurse, one nurse assistant, and up to 12 community health workers. The teams cover 2.000 to 4.000 individuals in households across a defined geographic area. Oral health teams of one dentist and one or two dental assistants may also be assigned to patient populations.

Currently, Brazil has more than 42.000 UBS with 44.000 Family Health teams and 1.229 PHC teams operating in the territory (MOH, 2021; Giovanella et al., 2021; Massuda, 2020). UBS can include riverside and fluvial, boat-based Family Health teams (MOH, 2021).

Since 2001, mental health care has been gradually shifted from hospital/hospice-based care to community- and home-based mental outpatient care (CAPS). Other policies and programmes complement PHC, addressing special and/or vulnerable communities, such as adolescent offenders, albinos, black, homeless, LGBTI, mothers and children, prisoners, refugees, gypsies, rural and forest populations.

PHC coverage is higher among the most vulnerable population, whether considering the head of the household level of education or the per capita family income. Coverage is more significant in rural areas. According to the Health National Survey 2019, from the 60.9% of the population having used a health service, 46,8% use a UBS (SUS), 22,9% go to private providers, and 14,1% go to the Emergency Care Units (within SUS). The North and Northeast regions are those where public services are more used (MOH, 2021).

In 2020, Brazil had 2.4 physicians per 1.000 inhabitants (0,94 in 1980), of whom 61% were specialists and 39% generalists. The geographic distribution of physicians is asymmetric, varying between and within regions and urban and rural areas, an ancient trend in Brazil. Moreover, 50,2% of physicians work on both public and private subsystems (Scheffer, 2020).

Governance

Governance is ensured by a complex administrative system of rules that aims to coordinate the functioning and decision-making processes in the SUS. The legal framework consists of constitutional legislation, complementary and ordinary laws, decrees, ordinances, resolutions, normative instructions, deliberations, evidence-based clinical guidelines and other formal legal instruments.

A large number of actors are involved in the Brazilian health sector governance: the Ministry of Health; State and Municipal Health Secretariats; Tripartite, Bipartite and Regional Inter-Management Commissions; the National Council of Health Secretaries (CONASS); the National Council of Municipal Health Secretariats (CONASEMS); health consortia; health councils; service providers; and corporate institutions. Figure 12 illustrates the linkages of these structures and their decision paths.

Purchasing PHC

PHC, including emergency health care and 'after-hours' services, out-patient specialised care, and hospitalizations are free at the point of care to all Brazilians under the SUS and provided to any person needing/looking for care. Users do not have to make any direct payments to providers.

In the case of private providers, users purchase services through a health plan/insurance or out-of-pocket (OOP) spending. In 2018, it was estimated that Brazil spent 27,4% of current health expenditure through OOP spending (IBGE, 2020; Reis et al., 2016).

Contracting and Payment mechanisms

There are three types of contracting in the health regions of the SUS: Public consortium, cooperation agreement, and public action organizational contract (COAP). Contracting allows joint management of public services, as well as total or partial transfer of services, personnel and essential goods for the continuity of the transferred services and, also, the regional relocation of resources destined to the SUS. Table 6 highlights the key differences between these three types.

Table 6 - Types of contracting with the Brazilian Health Regions (Adapted from Dutra et al. 2016)

| Type of contracting | Public consortium | Cooperation agreement | COAP (Public Action Organisational Contract) |
|---|---|---|--|
| Points of comparability | | | |
| Legal personality | Yes | No | No |
| Need of law | Yes | Yes | No |
| Objective | Joint management of public services, both in the total or partial transfer of charges, services, personnel & essential goods for the continuity of the health services transferred. | The same as in the public consortium. | Organization & integration of health actions & services, under the responsibility of federative entities in a Health Region, in order to ensure comprehensive care to users. |
| Possibility of formalizing legal instruments | Can sign contracts & agreements taking on responsibilities directly as well as in court. | Cannot formalize contracts and agreements. | Cannot formalize contracts and agreements. |
| Movement of resources between entities | Consortium members may reallocate parts of the resources of the FNS among them. | The same as in the public consortium. | There is no legal predictability. |
| Quantity of municipalities to formalize tools | It may be between two or more municipalities. | It may be between two or more municipalities. | All municipalities of the health region must sign. |

FNS=National Health Fund.

New financing mechanisms

In November 2019, a new Federal Ordinance instituted the Programme “Prevent Brazil” (MOH, 2021). This established a new funding model for PHC within the scope of the SUS and it entered into action in 2020. Prior to 2020, payments were fixed per person, for services provided (special programmes) and sometimes tied to performance.

The new financing model changes some forms of transfers to municipalities, which are now distributed based on three criteria: (i) weighed capitation, (ii) payment for performance, and (iii) incentives for strategic actions. Weighed capitation takes into account the population registered in an accredited Family Health or PHC team, socioeconomic vulnerability, demographic profile (focus on less than 5 yr and over 65 yr), and geographical classification (urban, rural and remote). It should be noted that the presence of professionals in the team is also a criterion. Performance will be gradually assessed according to a range of clinical and epidemiological, process and results

indicators. Certain actions such as health care for prisoners or fluvial communities, for homeless and adolescents, and others will receive specific incentives (Massuda, 2020; Harzheim, 2020).

Monitoring PHC performance

To encourage managers and Family Health teams to improve the quality of health services offered to users, the MoH developed the National Program for improving PHC access and quality. In the PMAQ, financial incentives are provided against a wide variety of structure, process, and outcome indicators and it involves several rounds of self- and external assessment of the FHS teams. Although voluntary, the programme now includes nearly 39,000 Family health teams in the country and has led to a near doubling of the federal investment in PHC in its first 2 rounds (Macinko et al., 2017; Pinto and Giovanella, 2018).

Discussion

The creation and implementation of the public Brazilian Unified Health System (SUS) and its core Family Health Strategy (FHS) have been a great step towards UHC in Brazil. It has expanded coverage of health service use and brought health care closer to families and to vulnerable communities all over the country, especially in terms of improved follow-up of chronic conditions, improved diagnosis and easier access to medicines. Indeed, the FHS has a higher coverage in deprived areas, such as the rural Northeast. The FHS had an important role on reducing unattended deaths and improving the quality of vital information in Brazil (Rasella et al., 2010). It has contributed to a decrease of child mortality and better mother care (Bastos et al., 2017, Aquino et al., 2009, Rocha and Soares, 2010), and to reduced number of potentially avoidable hospitalizations (Greve and Schattan Ruas Pereira Coelho, 2017; Macinko et al., 2010; Pinto and Giovanella, 2018). The 2019 National Health Survey findings confirmed that Brazil's Family Health Strategy continues to be an equitable policy (Giovanella et al., 2021).

Despite these encouraging results, in the past years, the SUS has been losing social legitimacy. SUS is presently at a crossroads with persistent under-funding since its creation and weaknesses in health care delivery (Castro et al., 2019). The Effective UHC Index, a measure created by the Global Burden of Disease Expert Group, is based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, NCDs, service capacity and access. It is presented on a scale of 0 to 100. The Effective UHC Index for Brazil was estimated at 65 in 2019 (G.B.D. Universal Health Coverage Collaborators, 2020). Also, SUS is perceived by many (including some influential politicians) as "services for the poor." To this, resistance and prejudice by the medical professionals, even if they are working at/for SUS themselves, should be added.

Besides these more intangible aspects, SUS faces serious threats, particularly with respect to service provision, and its relationship with the private sector (Reis et al., 2016; Viacava et al., 2018). Integration and coordination of health services and care remain precarious, resulting in fragmentation, redundancy, and major gaps in health care. This contributes to persistent regional inequalities, indicating unmet health needs among residents of the less developed municipalities (Massuda, 2020; Szwarcwald et al., 2021; Machado and Silva, 2019).

The fundamental principles of universality, equity and comprehensiveness that shaped the SUS and were incorporated into the 1988 Brazilian Constitution, have produced changes in health practices, particularly PHC, but current changes in the national policy guidance may weaken the community approach and the priority given to the Family Health Strategy.

Colombia

Introduction

Situated in the North-western corner of South America, Colombia has an area of 1.138.910 km² and has the second-highest level of biodiversity in the world. Its territory encompasses Amazon rainforest, highlands, grasslands, and deserts, and it is the only country in South America with coastlines and islands along the Caribbean Sea and the Pacific Ocean. With a rich culture reflecting the indigenous Indian, Spanish and African origins of its 50,339,443 people (World Bank, 2019), Colombia has been ravaged by decades-long violent conflict involving outlawed armed groups, drug cartels and gross violations of human rights, although, since 2002, the country has been making progress towards improving security. The country also has a highly stratified society where the traditionally rich families of Spanish descent have benefited from this wealth to a far greater degree than the majority mixed-race population.²¹

Colombia has made significant progress in the recognition and protection to health, which is guaranteed by the Colombian Constitution: health and social security are mandatory public services under the administration, coordination and control of the State. Since the 90s, the Colombian health system has been submitted to reforms. In 1993, the General System of Social Security in Health (*Sistema General de Seguridad Social en Salud - SGSSS*) was established, creating a health system based on insurance markets with different public-private provider combinations. Public health programmes were the responsibility of the local governmental health authorities and individual health services the responsibility of insurance companies (Guerrero et al., 2015; Mosquera, 2014).

Country profile

Colombia is a presidential republic with a bicameral Congress consisting of the Senate (108 seats) and the Chamber of Representatives (172 seats). The adoption of a new Constitution in 1991 enhanced the process of decentralization, and currently the Colombian two-tier subnational government consists of 32 Departments (including 5 Districts and the Capital District of Bogotá), 1.102 municipalities and indigenous territories. Geographically, there are 6 natural regions in the country. Colombia's subnational governments are the main providers of public services, especially in education and health services. In 2015, Colombian subnational government expenditure in health was 47% of the public expenditure (OECD, 2019).

Colombia is an upper middle-income country with a gross national income (GNI) per capita of 5.780 current USD. Its economy grew uninterrupted since 2000 and poverty has been drastically reduced in the past decades (the percentage of the population living on less than US\$ 1,90 a day went from 20,1 in 2001 to 4,9 in 2019 PPP). Despite this growth, exports are highly concentrated in non-renewable commodities (oil in particular), which increases the exposure of the economy to price shocks. Also, Colombia is one of the countries with the highest income inequality and labour market informality in Latin America (Gini Index 51.3 in 2019). The gross domestic product (GDP) growth has been instable; it accelerated from 1,3% in 2017 to 3,3% in 2019, but the COVID-19 pandemic hit the economy hard, causing the worst recession in almost half a century (GDP: minus 6,8% in 2020) (World Bank, 2021).

Colombia has been witnessing an accelerated and very uneven process of urbanization; in just over five decades it went from an eminently rural country to being substantially urban, with 81,4% of its population concentrated in cities, mainly in the capitals. The population is concentrated in the Andean and coastal regions, while the Orinoquía and the Amazonia - which represent practically half of the territory - contain less than 2% of the population. Violent internal displacement and migration of the population continue to be important factors of urban growth. Population growth rate

²¹ <https://www.bbc.com/news/world-latin-america-19390026>

decreased from over 3% per year in the 60s to 0,9% in 2013 but reached 1,6% in 2018 mainly due to massive refugee and migrant population from neighbouring Venezuela (around 1,7 million in 2020). The displaced population migrates to urban areas and informal settlements proliferate on the cities' peripheries. Nearly 30% (27,8% in 2018) of the population in Colombia do not have adequate homes and around 5% of the population are homeless (Habitat for Humanity UK, 2021²² (World Bank, 2021; DANE, 2019).

As most Latin American countries, Colombia went through a demographic transition impacting on health status and health needs. There was a decrease in fertility rate (from 5,3 children per woman in 1970 to 1,8 in 2019), an increase of the population of 65 years and above, and a rising elderly dependency rate (from 5,9% in 1970 to 13,2% in 2020). More than two thirds of the population are in the 15-65 age group and life expectancy at birth rose 20 years since 1960, being at 77,3 years in 2019. (WB, 2021; DANE, 2018) Maternal mortality and infant mortality both decreased. Maternal mortality diminished from 94 maternal deaths per 100,000 live births in 2000 to 83 maternal deaths in 2017, while infant mortality went from 70,5 deaths per 1.000 live births in 1970 to 11,8 infant deaths per 1.000 live births in 2019 (WHO, 2019; UNICEF, Undated).

Despite the improvement of these last decades, Colombia still faces a high burden of disease. Currently, chronic conditions place the greatest demand on health services. At the same time, communicable diseases, maternal, perinatal and nutritional conditions, and injuries are substantial. Ischaemic heart disease, interpersonal violence, stroke, chronic obstructive pulmonary disease, and Alzheimer's disease were the five top leading causes of death in 2019 (OECD, 2015). The prevalence of non-communicable diseases (NCDs) in Colombia increases significantly with age, is more common in women (55%) and in households with higher income, whereas it is significantly lower in persons with high education (Camacho et al., 2020). There is an upward trend in HIV/AIDS incidence and a stable trend in the AIDS mortality rate (Montana et al., 2021). Nonetheless, during the 2013-2016 period, Dengue, Chikungunya, and Zika affected more than 1 million people in Colombia. The burden of these arboviruses exceeded the burden of other infectious diseases such as HIV/AIDS and tuberculosis posing a public health challenge (Mora-Salamanca et al., 2020).

A hallmark of Colombia is population-wide exposure to violence as result of 60 years of unrelenting armed conflict overlaid upon high rates of homicide, gang activity and highly prevalent gender-based and intra-familial violence. This context, even after the peace agreement, contributes to persistent adverse mental health outcomes in the overall population. The number of people affected by trauma is large. (Morales, 2016) The population burden of alcohol misuse is significant, according to the last (2019) National Survey of Consumption of Psychoactive Substances (DANE, 2019; Chaskel et al., 2015).

The COVID-19 pandemic has hit drastically the country. By the end of August 2021, almost 5 million confirmed cases and over 120 thousand deaths have been registered, and in August 2021, only 28,3% of the population is fully vaccinated (JHU-CRC, 2021²³).

Health service organisation

Since the early 1990s, Colombia has made great strides in extending healthcare coverage to its population. The country radically reformed its healthcare system with the Law 100 of 1993 (Congreso de Colombia, 1993), which created the General System of Social Security in Health (SGSSS in Spanish) - the government entity in charge of regulating the health system in Colombia. The SGSSS is a public system but in which private companies play a major role, and health care services are provided by both public and private institutions. The public-private mix in Colombia

²² Habitat for Humanity Great Britain at <https://www.habitatforhumanity.org.uk/country/colombia/>

²³ See the Johns Hopkins Coronavirus Resource Center (CRC) at <https://coronavirus.jhu.edu/region/colombia> for update.

started in the early 1980s and the country has implemented health care privatization rapidly and with a wide scope (Bustamante and Mendez, 2014).

The SGSSS has two regimes. The *Contributory Regime* (CR) caters for formal sector employees and people able to pay (salaried, pensioned and independent workers with incomes equal to or greater than a minimum wage) and is financed by mandatory contributions. The *Subsidized Regime* (SR) covers people without the ability to pay and is funded by resources from the CR and other sources of financing, such as taxes. The persons who are not affiliated to either regime are called “*vinculados*” and represent around 6% of the population. There are also ‘*Special regimes*’, which covers persons exempted from the SGSSS: members of the Military Forces, the National Police, the Teacher's Social Benefits Fund (inclusive universities) and Ecopetrol (Colombian Petroleum Company) employees.

The Health Benefits Plan (*Plan de Beneficios en Salud* - PBS) - formerly called the Mandatory Health Plan (*Plan Obligatorio de Salud*-POS) - is the set of health care services to which a user is entitled in the SGSSS. Its purpose is the protection of health, the prevention and cure of diseases, and the supply of medicines for the member and their family. It is complemented with economic benefits in case of maternity leave. Since 2016, the health benefit plans of the two regimes are similar, whereas in the past, the *subsidized* regime (SR) included less benefits. It should be noted, however, that patients regularly need to claim this right using litigation strategies; there is pressure from the courts to provide high-end health care to all citizens, and the field of health jurisprudence has grown rapidly (Arrieta-Gómez, 2018).

Both contributory and subsidized regimes are managed by the Administrator of Resources of the General System of Social Security in Health (*Administradora de los Recursos del SGSSS* - ADRES). The Contributory Regime has a national structure, accountable to national authorities, while the Subsidized Regime has a departmental structure, and is answering to local authorities. Health Promoting Entities (*Entidades Promotoras de Salud*-EPS) are insurers in the Contributory and Subsidized regimes, who purchase services from health provider institutions (*Instituciones Prestadoras de Servicios de Salud*-IPS), which may be either public or private entities. Within the reform, public hospitals became state-owned social corporations with legal personality, equity capital, and administrative autonomy. Figure 11 schematically shows the Colombian health/social protection system and its financing flows (Guerrero et al., 2011; Agudelo-Calderón et al., 2011; Vargas et al., 2010).

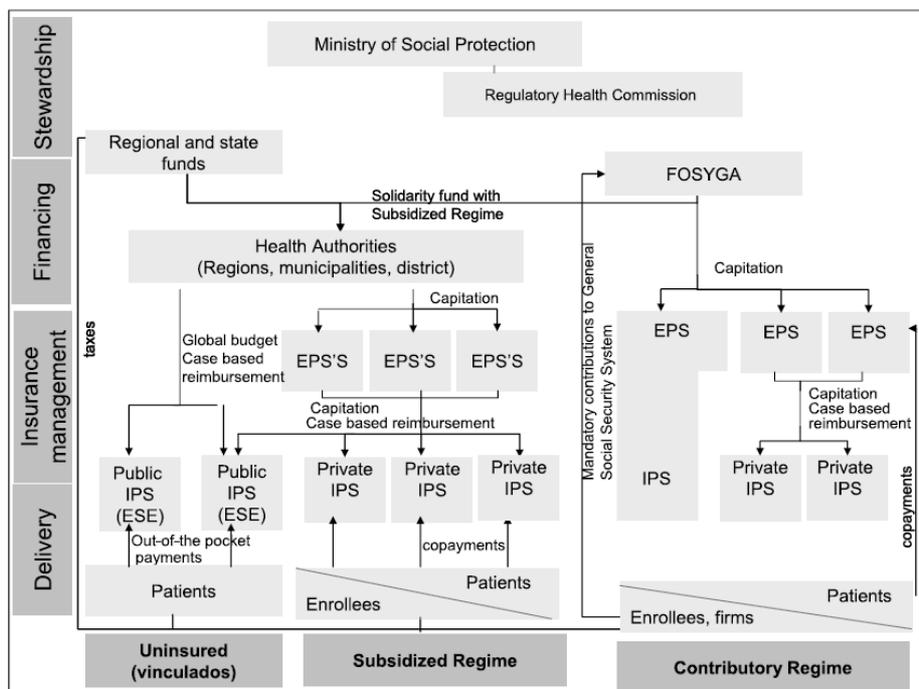
Health care is organised into three levels in terms of *human resources and responsibility*, and into four levels in terms of *surgical complexity*, according to the activities, interventions and procedures they provide:

- Level I: Health Posts and Health Centres, with a general physician and/or auxiliary personnel, and/or other non-specialised health professionals. Services provided include general medical consultation and referral if necessary, dental care, basic clinical laboratory, cytology and radiology, essential medications, and intra and extramural promotion, prevention and control actions.
- Level II: Hospitals I and II, staffed by a general physician for consultation and referral, and/or with advice from specialized personnel or resources. Services provided: Specialised outpatient care but no surgical care, general surgery and obstetrics, specialized laboratory and radiology
- Level III: Specialized Institutions and Hospitals III, with specialist physicians and the participation of general practitioners. Services provided are the same as Hospitals II plus sophisticated clinical laboratory and radiology exams.
- Level IV: Hospitals level IV perform the activities of level III plus sophisticated imagery, oncology treatments, dialysis and kidney transplantation, neurosurgery and complicated burns management (MSPS, 2016).

In 2019, Colombia had 15,151 private healthcare institutions, making this type the most common in the country; whereas 3,646 institutions were public, and 22 were a mix of public and private.

Colombia's hospital infrastructure in 2021 included 2,711 hospitals, nearly 3,100 operating rooms, and more than 78.4 thousand hospital beds (MSPS, 2021).

Figure 14 - Colombia Health System / Social Protection system (Source: Vargas et al., 2010)



FOSYGA: Fondo de Solidaridad y Garantía => at present ADRES: Administradora de los Recursos del SGSSS (General Administrator of SGSSS); EPS: Empresa Promotora de Salud (Insurance Company for the Contributory Regime); EPS'S: (Insurance Company for the Subsidized Regime); IPS: Instituciones Prestadoras de Servicios de Salud (Healthcare Provider); ESE: Empresa Social del Estado (Public Health Provider). Arrows are monetary flows.

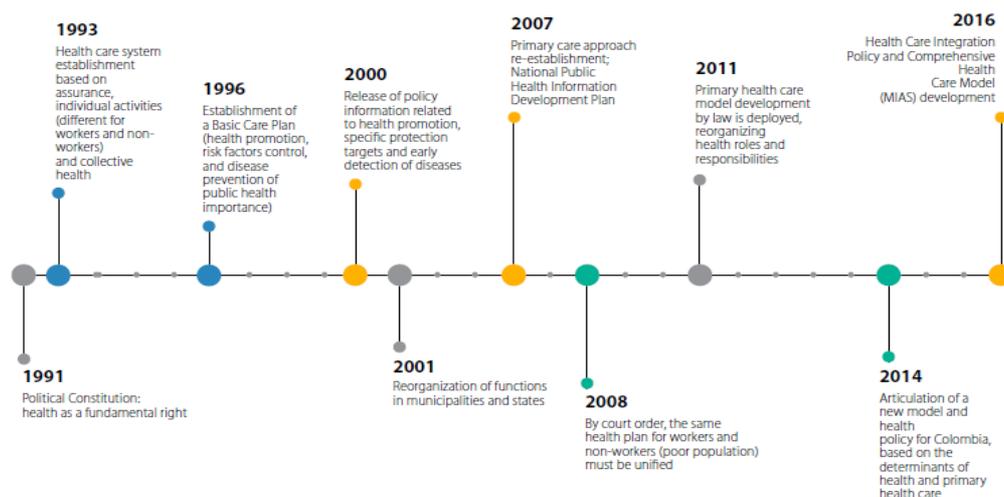
Primary health care

As in many other countries, PHC is defined in many ways in Colombia, going from basic health care at the first level to a broader perspective, focused on the right to health and addressing social determinants (Molano-Builes et al., 2020). The *Dirección de Prestación de Servicios y Atención Primaria* (Directorate for the Provision of Services and Primary Care) of the MSPS is in charge of PHC.

Several reforms in recent years have sought to strengthen the role of PHC in Colombia's health system. PHC has evolved since the pivotal Law 100 of 1993, which created the SGSSS and regulated PHC implementation. In 2011, Law 1438 promoted PHC as a framework to protect and promote health and to strengthen the SGSSS. In 2015, the Statutory Health Law (Law 1751) promulgated health as a right and PHC as its central strategy. Figure 2 shows key dates and events for PHC in Colombia (WHO, 2017a).

According to the 2011 Law, PHC implementation is considered as priority and is based in integrated health service networks, intersectoral/cross-sectoral action, and community/citizen participation. In 2016, the MSPS promulgated the 'Comprehensive Health Care Policy' (Política de Atención Integral en Salud-PAIS) following the proclamation of the 2015 Statutory Health Law (Law 1751) which established a new social contract between State and society. This law made an essential turn placing the right to health within the scope of the Health System and not the Social Security System in Health, and also raised health to the level of autonomous fundamental right (Restrepo-Chavarriaga and González-Quiñones, 2017; Fortich-Mesa, 2018).

Figure 15 - Timeline of Primary Health Care in Colombia (Source: WHO, 2017a)



The ‘*Comprehensive Health Care Policy*’ is structured around four strategies: (i) *Primary Health Care* with a focus on family and community health; (ii) *Care*, understood as the capacities, decisions and actions that individuals take to protect their health, that of their family, the community and the surrounding environment; (iii) *Comprehensive Health Risk Management* as an articulation of public health, insurance and health care provision; and (iv) *Differential focus*, adapting the model to the particularities of the territories, the characteristics of the population (dispersed, urban, rural), and the available service structures (MSPS, 2016).

Health care financing

In 2018, Colombia spent 513,2 current US\$ per capita in health and 7,6% of its GDP. Out-of-pocket has decreased in the last decade and it was at 15,1% of current health expenditures in 2018 (World Bank, 2021).

The *Contributory Regime* is financed by compulsory contributions from employers (8,5% of the salary paid), employees (4% of the salary), the self-employed (12,5%), and pensioners according to their payment capacity. The *Subsidized Regime* is financed by taxes and transfers from the contributory regime. A Capitation Payment Unit (*Unidades de pago por capitation = UPC*) to deliver the Health Benefits Plan is transferred by the Government to the EPSs according to the number of enrolled members in each EPS (Insurance Company for the Contributory Regime). Table 7 summarizes the insurance regimens and their respective financing mechanisms.

In order to maximize their revenue, EPSs compete for the enrolment of new members and receive a capitation payment to cover the benefit packages in each regime. ADRES, the General Administrator of Resources from the SGSSS, provides cross-subsidies between schemes and to finance promotion and prevention interventions.

Currently, the contributory market is characterized by the predominance of private insurers – 86,1% of the affiliated members. Five private insurers hold 50% of the market. The largest public insurer has been transformed into a mixed company with private capital and covers 5.8% of the insured. It is important to notice that at present both the contributory and subsidized regimes, including that for indigenous populations, have the same health benefit plans (WHO, 2017a; Vargas et al., 2010; Guerrero et al., 2011).

Table 7 - Health insurance regimes and their financing mechanisms, Colombia (Source: Guerrero et al., 2015)

| Health insurance | Nature of scheme and target beneficiaries | Financing mechanism |
|---------------------------------|---|--|
| The contributory regime | Mandatory insurance for all formal sector workers and others with the capacity to pay (together with their dependants) | Payroll tax of 12.5%: <ul style="list-style-type: none"> originally formal sector workers contributed 4% and employers 8.5% employers are now exempted but pay 8% tax on annual profits independent workers pay the full 12.5% 0.17 percentage points of the payroll tax cross-subsidises the subsidised regime Co-payments User fees |
| The subsidised regime | Insurance for the unemployed, informal sector workers and the poor (together with their dependants) | No contributions from members 17 financing sources, mainly general taxes 1.5% of payroll of formal sector workers received from the contributory regime as a cross-subsidy Co-payments No user fees |
| Special Social Security schemes | Teachers in public schools and universities, the military and police officers, and workers of the national oil company (together with their dependants) | Payroll tax of 12.5%: <ul style="list-style-type: none"> contributions by members and employers vary by scheme 1.5 percentage points of the payroll tax cross-subsidises the subsidised regime Usually no co-payments or user fees |
| Commercial health insurance | Voluntary insurance for those who have the capacity to pay (although these are still required to enrol in the contributory regime) | Contributions by members Co-payments User fees |

Social security coverage has reached 96,6% (in 2014). The Subsidised Regime covers 48% of the population while the Contributory 43,6%; and 5% are affiliated to the Special regimes. Affiliation was slightly higher for rural if compared to urban areas; in rural areas the subsidised regime is much higher than the contributory one, and it is the contrary in urban settings (MSPS, 2016).

Primary health care delivery

Colombia's SGSSS has been providing universal public and private health coverage since the introduction of Law 100 of 1993, whereby all citizens, irrespective of their ability to pay, are entitled to a comprehensive health benefit package. In 2018, it was estimated that 92% of patients could had access to a general practitioner in less than 48h in case of need (PHC Performance Initiative, Undated).

The provision of health services in Colombia is regulated by the 'National Policy for the Provision of Health Services' (*Política Nacional de Prestación de Servicios de Salud*²⁴), whose main objective is to

²⁴*Política Nacional de Prestación de Servicios de Salud* obeying "Ley Número 1122 de 9 Enero 2007 Por la cual se hacen algunas modificaciones en el Sistema General de Seguridad Social en Salud y se dictan otras disposiciones" available at <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/ley-1122-de-2007.pdf>

guarantee access and quality of services, optimize the use of resources, promote user-centred care approach and achieve the financial sustainability of public health service providers (MSPS, 2021).

There is a clear level of hierarchy services within the Colombian health system with PHC services serving as the point of entry into the system except emergencies. Individuals are required to register with an IPS of their choice within their EPS network and referral to other levels of care are necessary. Lately PHC has received more attention - including on the management of COVID-19 (OECD, 2021) - and the MSPS expects to solve the majority of complaints at the first level of care. There is, however, a marked difference between urban and rural and/or remote areas where resources and access to health care remain weak. The density of generalist doctors varies from an average of 2,5/1.000 population in rural areas to 17/1.000 population in departments such as Santander, Risaralda or Bogotá. Referrals are more challenging as one third of specialists are in Bogotá. The worse imbalance is for psychiatry as almost 50% of all psychiatrists live in Bogotá (OECD, 2015). The same imbalance is also observed for other resources such as hospital beds and operating rooms.²⁵

PHC teams are becoming more and more multidisciplinary, but the country still lacks specialised PHC workforce although plans are in place to create one. Evidence has shown the impact of PHC services on prevention and decrease of maternal and infant mortalities. Care for long-term conditions such as diabetes and hypertension has also received closer attention.

In general (86%), the public has a positive - 'good' or 'very good' - perception of the quality of PHC, although it has unfulfilled expectations mainly in communication, family/community orientation, and coordination of care (Doubova, 2016; Mosquera et al., 2013; OECD, 2015).

The Effective UHC Index, a measure created by the Global Burden of Disease Expert Group, is based on tracer interventions that include reproductive, maternal, new-born and child health; infectious diseases; NCD; service capacity and access; and it is presented on a scale of 0 to 100. The Effective UHC Index for Colombia was estimated at 74 in 2019 (GBD 2019; UHC Collaborators, 2020)

²⁵ National average=1.68 hospital beds/1,000 population ranging from 0.32 to 2.65. Operating rooms=6.27 per 100,000 population ranging from over 10 in certain localities such as Atlántico to less than 3 in rural Guaviare or Vaupés. (OECD, 2017)

Governance

The main institutions/actors in charge of governance are:

1. The Ministry of Health and Social Welfare (*Ministerio de Salud et Protección Social* - MSPS) assures overall stewardship of the health care system, including establishing the regime for EPS, developing and implementing norms, guidelines, and quality standards for the IPS and EPS.
2. The oversight of the SGSSS is assured by the National Superintendency of Health (*Superintendencia Nacional de Salud, Supersalud* in short) which main tasks are directing, coordinating and executing the supervision, inspection, surveillance and control policies of the SGSSS, inclusive sanctioning.
3. Local directions of the National Institute for Health (*Instituto Nacional de Salud* - INS) implements and monitors public health and medical policies at the local level and inspects health coverage services.
4. The National Institute of Food and Drug Surveillance (*Instituto Nacional de Vigilancia de Medicamentos y Alimentos* - INVIMA) is the national regulatory agency which controls the application of sanitary norms associated with the consumption and use of food, medicines, medical devices and other products subject to sanitary surveillance.
5. The Institute of Technological Evaluation in Health (*Instituto de Evaluación Tecnológica en Salud* - IETS) is a corporation that produces information based on evidence to contribute to the development of better public policies and healthcare practices. IETS assembles, among other, the MSPS, INVIMA, INS, Association of Faculties of Medicine, etc.

Primary health care financing

Pooling

ADRES pools all payroll-based contributions for health as well as other public sources earmarked for the sector. This fund is an account under the MSPS.

Purchasing

Colombia has a two-level purchasing arrangement. The main purchasers are the MSPS, other ministries and the two major insurance schemes, which are operated by 30 sub-purchasers, which together cover around 90% of the population. This competitive purchaser market led to a reduction in the number of insurance schemes (Klein et al., 2018; Rivillas et al., 2018).

Provider payment methods

The provider payment system is determined independently by each EPS that uses its discretion when negotiating with IPS on medical fees. It provides insurance benefits for medical services to subscribers based on agreements with the IPS regarding various payment methods: capitation, fee for service, case payment, and global budget. PHC is usually paid by capitation. Referrals including high complexity medical services are usually paid by fee for service, but is often paid by global budget in which the total amount of service is defined in advance. Secondary and tertiary medical services are mostly paid by fee for service, case payment, and global budget. Payment for performance is also allowed but not very common (HIRA, 2017). In 2017, 50% of all payments were made by fee for service, 40% by capitation and 10% by global budgets. The funding is mainly from public sources and managed to a large extent by private health insurance agencies. The initiative “*Colombia Compra Eficiente*”²⁶ provides a framework for integrating quality measures into the

²⁶ The “National Agency for Public Procurement - Colombia Buy Efficient (*Agencia Nacional de Contratación Pública - Colombia Compra Eficiente* - ANCP - CCE), is the governing body in matters of public procurement. Its objective is to develop and promote public policies and

purchasing decision through linking payment to the fulfilment of some indicators (Rivillas et al., 2018).

Benefit package

As mentioned earlier, Colombia has well-defined benefits packages covering the whole population and harmonised across the contributory and subsidized regimes. The alignment of the benefit package between regimes was accompanied by a list defining which services are excluded. This favoured equitable access to services, especially to new technologies in line with the Statutory Health Law of 2015. At the same time, a standardized process for updating the package was developed. This process includes criteria for assessing new technologies as well as a strong role for the IES and INVIMA (see above in 'governance') whose roles extend to negotiations and centralised procurement, price control of medicines and assessment of budgetary impact (Rivillas et al., 2018).

Stewardship

One of the main difficulties for coordination within the SGSSS arises from the multiple purchaser market. The establishment of ADRES controlling financing flows including funding for medicines and supplies, at national and sub-national levels, contributed already to better coordination and reduced operational cost. Accountability of purchasing agencies is further strengthened through general regulations from '*Colombia Compra Eficiente*'.

Discussion

The Colombian health system has made big efforts to fulfil the goal of UHC giving priority to PHC. Since its inception in 1993, the SGSSS has been providing universal public and private health coverage reaching almost 100% of its population at present. The system pools all resources into a common fund that is distributed on a risk-adjusted capitation basis to a range of public and private health insurance organisations. People are allowed to choose their health insurance organisation, which in turn are able to choose the providers with which they contract. In an equality concern, the health revenue collection is progressive, meaning that higher-income individuals contribute relatively more towards the health system (Guerrero et al., 2015; Torres and Acevedo, 2013).

Nevertheless, the Colombian health system is not free of problems. There are still equity challenges in the delivery of healthcare, especially for preventive and outpatient care. These inequalities are driven by individual characteristics such as wealth, urban residence, type of health insurance carried, and presence of multimorbidity (Agudelo-Calderón et al., 2011). For instance, the use of reproductive health services was found to be lower among indigenous and African-descendant Colombian women (Noreña-Herrera et al., 2015). There is also a marked difference in access and quality of health care, including infrastructure, equipment and technology between urban and rural/remote areas. While out-of-pocket expenditure is moderate to low and catastrophic health expenditure is uncommon, it affects primarily households in the lowest socioeconomic quintiles. The incidence is higher in households in the Pacífica and Atlántica regions, extended and nuclear families, households with children or elderly adults, located in rural or remote areas, and not insured under the healthcare system (Londono Agudelo et al., 2020; Amaya-Lara, 2016).

tools for state procurement and contracting processes, in order to generate greater efficiency, transparency and optimization of state resources. See <https://colombiacompra.gov.co/>

Conclusions

This report presents a summary of the results of a scoping review of the literature on purchasing primary health care in ten countries: the Philippines, Indonesia, Thailand, China, Spain, Estonia, Turkey, Ghana, Brazil and Colombia.

In 2018, Klasa et al. (2018) found little evidence of good implementation of such strategies in Europe and even less evidence of their effectiveness in terms of improving access and quality of primary health care.

Our review shows that the assessment of Klasa and colleagues holds also true for a selection of other countries, in Asia, Latin America and Africa. While a number of countries where PHC reforms were introduced saw major improvements in health utilisation and coverage, and health status (for instance China or Turkey), it remains difficult to attribute these changes to the policies that were introduced.

Our review showed that there is no uniform body of knowledge, which may be due to differences in terms of policy formulation and implementation, and sketchy documentation and evaluation of such policies.

Also methodological issues may explain the scarcity of systematic learning about strategic purchasing of PHC services. First, definitions of health care differ across countries, which hampers comparison of country policies. Second, much of the published papers focus on descriptions of policies, with less attention paid to assessing actual implementation, leave alone assessments of effectiveness, cost and efficiency. Finally, there is the challenge of collecting and interpreting evidence of good practices related to components of purchasing that are scattered among reports and publications. The latter are meant to serve different purposes for different actors and thus rarely, if ever, present a picture that can easily be compared across countries. Finally, the historical context and specifically the evolution of the political system, the (political) economy and the health system play an important role in explaining the pathways that countries have chosen. To our knowledge, systematic studies of such factors and their interplay are non-existent.

We thus echo the conclusion of Klasa and al., who wrote that *“Policymakers considering adopting strategic purchasing policies should be aware of this systemic implementation problem. Policymakers in systems with strategic purchasing built into policy should not assume that a purchasing system is strategic or that it is delivering any expected objectives.”* (Klasa et al. 2018). We would like to believe that this report may inspire policymakers and researchers by providing a succinct overview of primary health care policies and strategies developed and implemented in a number of countries. It may whet their appetite to study in more detail these policies in order to adapt and innovate ways to further improve the delivery of PHC.

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